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Department of  
Economic and  
Social Affairs



# Disability and Development Report 2024

Accelerating the realization  
of the Sustainable Development  
Goals by, for and with persons  
with disabilities

Advance Unedited Version



Photo Credit: UNDP Afghanistan

Department of Economic and Social Affairs

# **Disability and Development Report 2024**

Accelerating the realization of the Sustainable Development Goals  
by, for and with persons with disabilities



United Nations

## Department of Economic and Social Affairs

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## **Mobilizing official development assistance (target 17.2)**

Target 17.2 calls on developed countries to implement fully their official development assistance commitments, with special targets set for least developing countries. This section will focus on the role of official development assistance in supporting the realization of the CRPD and of the SDGs by, for and with persons with disabilities.

Official development assistance is one part of international cooperation, which the CRPD fully recognises as important in supporting national efforts to pursue the objectives of the Convention (article 32). The CRPD also stresses the importance of making international cooperation to inclusive and accessible to persons of disabilities and to promote economic assistance, including in the field of facilitating the access to assistive technologies.

The Addis Ababa Action Agenda committed to scale up international cooperation (i) to allow all children to complete free, equitable, inclusive and quality early childhood, primary and secondary education, (ii) to upgrade education facilities that are disability sensitive and (iii) to increase the percentage of qualified teachers in developing countries, especially in least developed countries and small island developing States.

Although official development assistance for supporting disability inclusion and the realization of the rights of persons with disabilities has been in place for many years, its monitoring has remained elusive till recently due to the lack of monitoring mechanisms.

As monitoring mechanisms are now in place to provide insights into the role of one type of official development assistance – bilateral aid – on disability inclusion, this section will provide an overview of the current situation and of progress in bilateral aid for disability inclusion and the realization of the rights of persons with disabilities and provide recommendations on how to mobilize official development assistance for the realization of the CRPD and of the SDGs by, for and with persons with disabilities.

## **Current situation and progress so far**

Since 2018, the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) started to collect data on development co-operation activities that support the inclusion and empowerment of persons with disabilities.<sup>577</sup> The data is collected yearly, and it is part of the regular data collection on Development Co-operation activities from DAC members and other bilateral countries, multilateral institutions and philanthropic actors in the OECD-DAC Creditor Reporting System (CRS).

Disability-related data is collected through a voluntary policy marker. The marker tracks if, and to what extent, development co-operation activities support the inclusion and empowerment of persons with disabilities. The marker distinguishes between activities that have disability inclusion as a principal

objective (activities that have been specifically developed for this scope) and activities with disability inclusion as a significant objective (activities that have other prime objectives but have been formulated or adjusted to help meet the relevant disability concerns)<sup>578</sup> — see Box 12. The policy marker on disability can be applied to bilateral activities in any sector (excluding administrative costs).

#### Box 12. Aid for Disability inclusion – definitions

**Bilateral aid** is provided directly by a donor country to an aid recipient country.

**Multilateral aid** is channelled via an international organisation active in development (e.g., World Bank, UNDP).

An activity can target disability inclusion as a "principal objective" or "significant objective".

**Principal objective** means disability was an explicit objective of the activity and fundamental in its design.

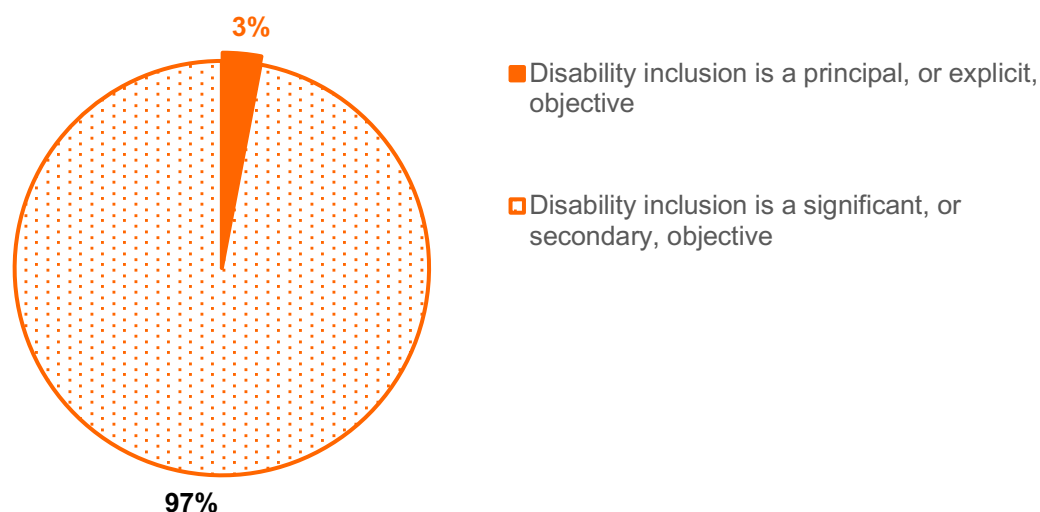
**Significant objective** means disability was an important, but secondary, objective of the activity.

Several countries implemented the policy marker: 24 countries reported disability-related development commitments in 2021. These countries reported 15.6 billion of US dollars of bilateral ODA with disability inclusion objectives. In most cases (15.1 billion of US dollars, corresponding to 97 per cent of the disability-inclusive ODA) the disability objectives are recorded as *significant* or secondary objectives, while activities with disability as *principal* objective amounted to 504 million of US dollars, corresponding to 3 per cent of the disability-inclusive ODA (Figure 233). This indicates that support to disability inclusion largely consists in mainstreaming disability-inclusion in activities that have other main objectives. These figures are similar to the ones observed for other policy areas of development co-operation. In particular, ODA that supports gender equality, which is also tracked by a policy marker, is also mainly composed (95 per cent) by activities with gender equality as a significant objective.<sup>579</sup>

For several donors, disability objectives are included in a relatively large part of their bilateral aid (Figure 234), the largest being Iceland (44 per cent), the EU (29 per cent), Japan (29 per cent), Ireland (24 per cent) and the UK (24 per cent). In total, 17 per cent of bilateral ODA was reported as disability related in 2021.

Support to disability inclusion is embedded in aid activities in many sectors (Figure 235). The sector with most disability-related commitments in 2021 was 'Transport and storage' (3.3 billion of US dollars) mostly for activities in support of rail transport, followed by 'Health' (3 billion of US dollars).

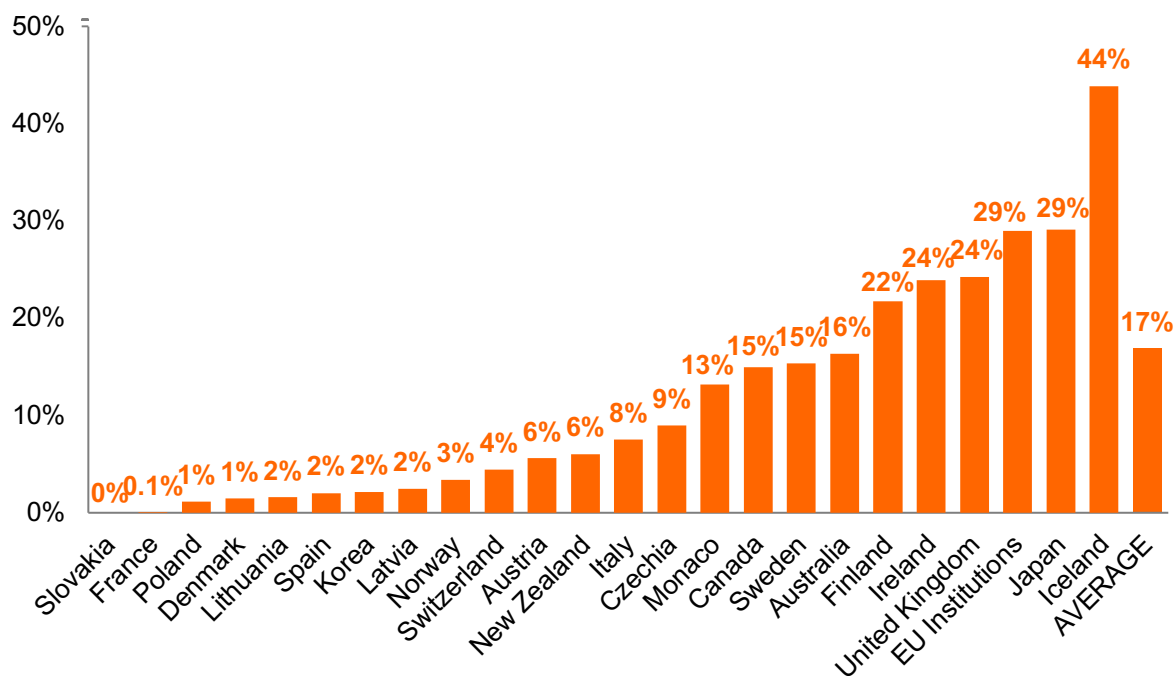
**Figure 233. Disability-inclusive bilateral aid, by whether disability is a main or secondary objective, in 2021.**



*Note: Bilateral aid refers to bilateral ODA.*

*Source: OECD Creditor Reporting System.*

**Figure 234. Percentage of bilateral aid that is disability inclusive, for 24 country donors, in 2021.**



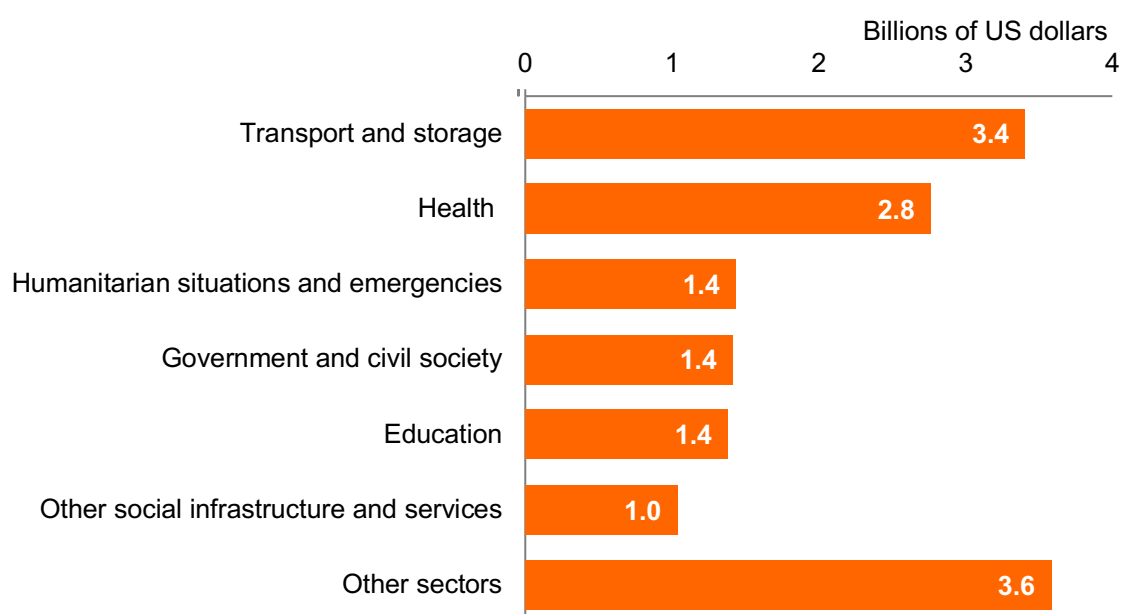
*Note: Bilateral aid refers to bilateral ODA.*

*Source: OECD Creditor Reporting System.*

Humanitarian aid (which includes ‘emergency response, ‘reconstruction relief and rehabilitation’ and ‘disaster prevention and preparedness’) is also a focus sector of disability-related activities (1.5 billion of US dollars) as well as ‘government and civil society’ (1.5 billion of US dollars) and ‘education’ (1.4 billion of US dollars).

Looking exclusively at the activities that have disability inclusion as the main objective of the activity, the largest sectors are ‘health’ (145 million US dollars as of 2021), followed by government and civil society’ (74 million US dollars) and ‘education’ (54 million US dollars).

**Figure 235. Disability inclusive aid, by sector, in 2021.**



*Note: Aid refers to ODA. Amounts shown in 2021 current US dollars.*

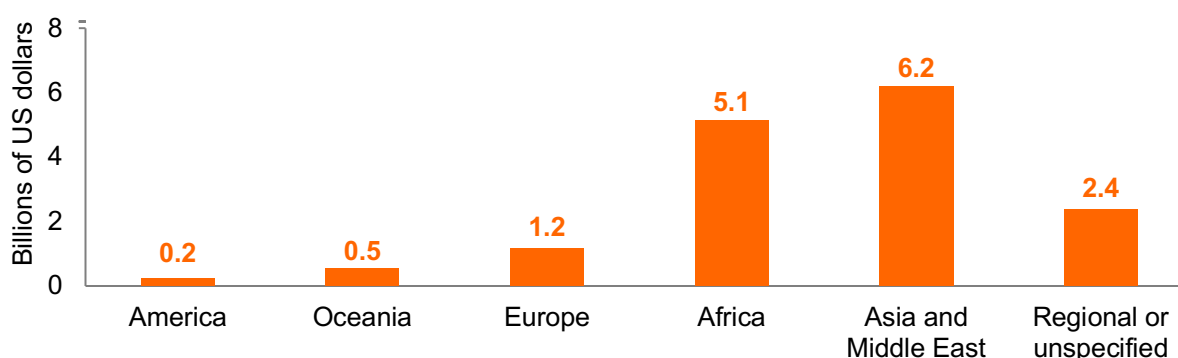
*Source: OECD Creditor Reporting System.*

Disability inclusive aid focuses mainly on Asia (6.2 billion of US dollars, in 2021) followed by Africa (5.1 billion of US dollars) – Figure 236. The major recipient of disability inclusive ODA is India (2.3 billion of US dollars, in 2021) followed by Bangladesh (1.7 billion of US dollars), Türkiye (756 million of US dollars) and Indonesia (506 million of US dollars). The majority of disability inclusive ODA is focused on few recipients, in fact the commitments to the top 10 recipient countries amount to 67 per cent of the total disability-related ODA committed to individual countries (i.e., excluding regional and global programmes).

Data show strong linkages between the activities that support disability inclusion and the activities in support of gender equality. In fact, in 2021, over 90 per cent of the disability related activities are also reported as contributing to gender equality. In particular, 87 per cent of the activities marked significant for

disability are also marked for gender equality with the same ranking. This shows that development co-operation activities aims to support equality, inclusion and empowerment of persons with disability and of women with cross-cutting approaches that includes different groups of beneficiaries and their intersectionality.

**Figure 236. Disability inclusive aid, by recipient region, in 2021.**



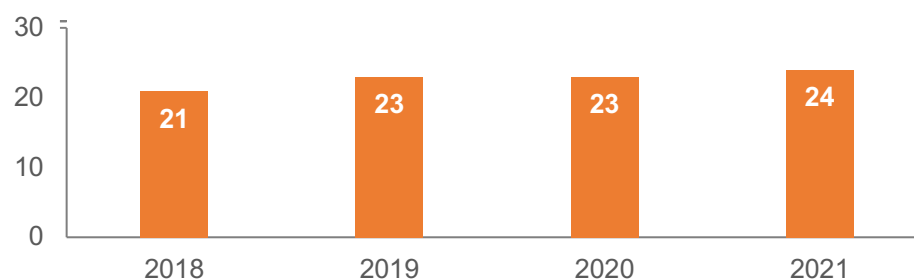
*Note: Aid refers to ODA. Amounts shown in 2021 current US dollars.*

*Source: OECD Creditor Reporting System.*

Countries have increasingly reported on the disability marker in their bilateral aid (Figure 237). In the first year of adoption of the disability marker, in 2018, 21 country donors reported on this marker in their bilateral aid. In 2021, 24 reported.

The disability marker was already picked up by donors other than countries. In 2018-2021, 18 philanthropic foundations reported on the disability marker for their aid, totalling 452 million US dollars<sup>580</sup> to activities with disability inclusion objectives over this 4-year period.

**Figure 237. Number of country donors reporting on the disability marker in their bilateral aid, by year, in 2018-2021.**



*Note: Aid refers to ODA.*

*Source: OECD Creditor Reporting System.*



Apart from monitoring aid for disability inclusion, there have been efforts in recent years to coordinate this aid through the creation in 2015 of the Global Action on Disability (GLAD) Network, a coordination body of bilateral and multilateral donors and agencies, public and private foundations as well as representative organization of persons with disabilities.

## Summary of findings and the way forward

The OECD DAC introduced in 2018 a policy marker to track bilateral aid in support of inclusion and empowerment of persons with disabilities. As of 2021, 24 country donors reported commitments on disability inclusive bilateral aid. Bilateral aid in support of disability inclusion surpassed 15 billion of US dollars in 2021, with 17 per cent of total bilateral aid reported in 2021 including disability inclusion objectives.

In most cases, disability inclusion objectives are being incorporated as secondary (significant) objectives of activities that have other focus areas, showing that disability inclusion is being mainstreamed in the broader bilateral aid activities. Only a small portion of disability-inclusion aid, 3 per cent, includes disability inclusion as the main (principal) objective of the activity.

As disability markers for multilateral aid are largely missing, it is not possible at this point to assess the role of international organizations in providing this assistance. A number of philanthropic foundations is already reporting on the disability marker, but there is scope for increasing the reporting from public and private foundations.

The following steps can contribute to ensure that aid is increasingly disability-inclusive:

**1. Improve data and research on multilateral aid for disability inclusion.** Encourage multilateral organizations to report on a disability marker for their multilateral aid and encourage all donors to report the disability marker in their bilateral aid. Encourage research tracking aid from private entities to create a global mapping of aid for disability inclusion. Undertake evidence-based research on the application of aid versus country needs to identify and address gaps.

**2. Encourage bilateral and multilateral donors to include disability-inclusion objectives across all relevant aid, avoid duplication of aid activities and cover areas where aid activities are lacking, such as disability inclusive climate action and combating multiple intersecting forms of discrimination.** Encourage donors to invest in areas that need more attention, such as access to basic services for persons with disabilities, like access to water, sanitation and energy. Encourage donors to also invest in areas that can create synergies and be impactful for all, if not most SDGs, like access to assistive technology, including transfer of technology from developed countries to other countries. Some countries tend to receive the bulk of aid, while others urgently needing assistance to implement disability inclusion activities are struggling to receive assistance. Conducting a comprehensive study on needs versus assistance can identify gaps and duplication.

**3. Encourage focal points from sectors other than disability inclusion to participate in mechanisms of coordination of bilateral and multilateral aid.** These mechanisms have mostly focal points on disability and would benefit from wider cross-sectorial expertise to ensure that aid is effectively allocated, coordinated and used with successful outcomes.

**4. Raise awareness of CRPD among the private sector involved in aid activities and encourage them to build partnerships with implementing partners that follow the CRPD.** Many private sector donors work with organizations that follow a traditional model of disability not in line with the CRPD.

**5. Involve representative organizations of persons with disabilities in the implementation of international cooperation activities.** To ensure an effective implementation of international cooperation activities regarding disability inclusion, donors should ensure that representative organizations of persons with disabilities are consulted and meaningfully engaged from the beginning of these activities and in all stages of implementation.

## Enhancing the use of enabling technology (target 17.8)

Target 17.8 calls for enhancing the use of enabling technology. This section focuses on enhancing the use by persons with disabilities of assistive technology, an enabling technology which can drive remarkable change in promoting the inclusion, participation and engagement of persons with disabilities, in reducing inequalities between persons with and without disabilities and therefore in achieving all Sustainable Development Goals and leaving no one behind.

Assistive technology is an umbrella term for assistive products and related systems and services. Assistive products include items such as wheelchairs, spectacles, hearing aids, prostheses, continence pads, communication boards and reminders. A key target to providing access to this technology is target 3.8, which focuses on achieving universal health coverage as the delivery of assistive technology is often carried out through health systems.

The Convention on the Rights of Persons with Disabilities requires States to provide assistive technology to enable people with disabilities to exercise their rights (articles 4, 20, 26, 29 and 32). States should undertake or promote research and development of, and to promote the availability and use of assistive technology at an affordable cost (article 4). They should also provide accessible information about assistive technology (article 4). In international cooperation, States should provide, as appropriate, technical and economic assistance, including by facilitating access to and sharing of accessible and assistive technologies, and through the transfer of technologies (article 32).

The WHA Resolution 71.8 on improving access to assistive technology, adopted in 2018, urges States (i) to develop, implement and strengthen policies and programmes to improve access to assistive technology; (ii) to ensure that adequate and trained human resources for the provision and maintenance of assistive products are available; and (iii) to ensure that users and their carers have access to the most appropriate assistive products, and use them safely and effectively. Other areas covered by the Resolution include the development of a national list of priority assistive products; conducting research, development, innovation and design; engaging in international and regional collaboration; producing relevant population-based data; investing in barrier-free environments; and investing in access to assistive technology in the context of emergency preparedness and response programmes.

## Current situation and progress so far

In 2021, one in three persons needed one or more assistive products and more than 2.5 billion people around the world would have benefited from using one or more assistive products.<sup>300</sup> This number is expected to rise above 3.5 billion by 2050.<sup>300</sup> There is a considerable global inequity among countries in terms of access to assistive technology. Among 29 countries, the percentage of persons with their needs for assistive technology met among those with needs varied from 3 per cent to 90 per cent (Table 7). Both overall need and met need for assistive products increase with the human development index, a

composite index of life expectancy, education and per capita income indicators. 300 In countries with a low human development index, only 11 per cent of persons who need assistive technology have these needs met, whereas this percentage is 88 per cent in countries with very high human development index. Worldwide, this corresponds to more than 800 million persons who needed assistive technology in 2021 and did not have access to it. By 2030, this is expected to increase to at least 1.2 billion unless action is taken to reduce this unmet need.

**Table 7. Percentage of persons with need for assistive products and those with their needs met, by human development index category, in 2021.**

<b>Human development index</b> (Number of countries)	<b>Percentage of persons with need for assistive products</b> (Median and range)	<b>Percentage of persons with their needs for assistive technology met among those with needs</b> (Median and range)
Low (7)	15% (10% – 27%)	11% (3% – 17%)
Medium (9)	21% (13% – 31%)	33% (16% – 65%)
High (9)	26% (15% – 40%)	65% (35% – 80%)
Very high (4)	56% (35% – 69%)	88% (55% – 89%)

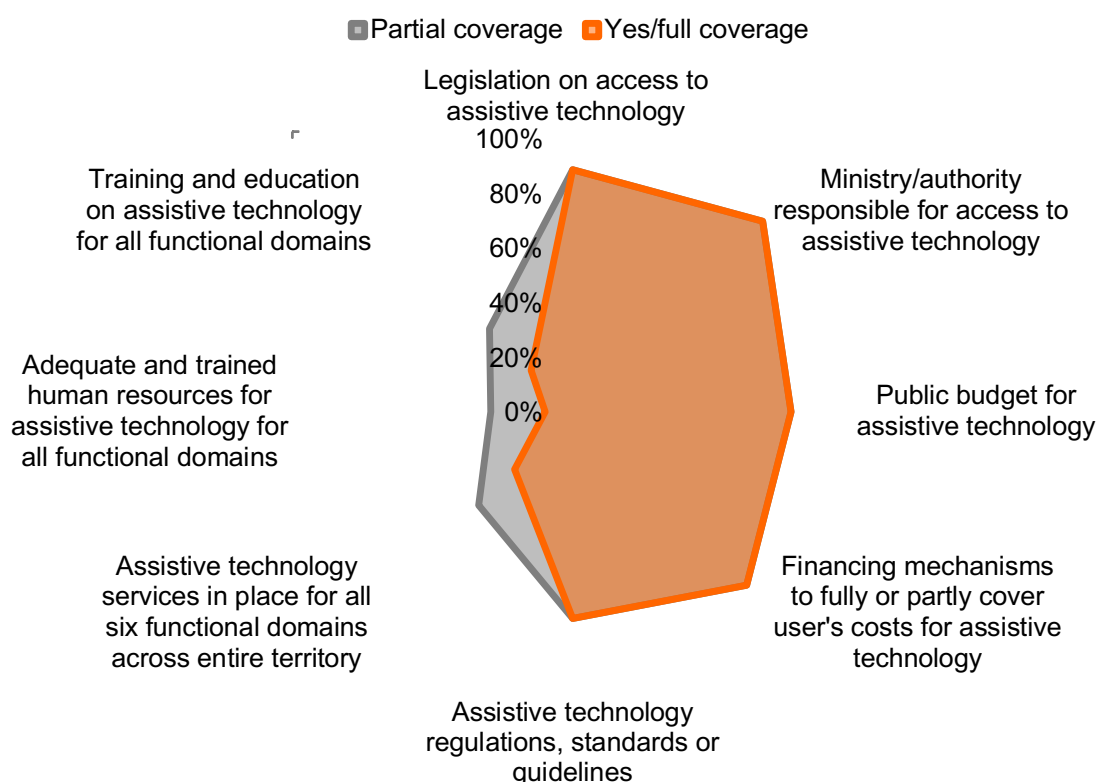
Source: WHO and UNICEF (2022).<sup>300</sup>

The most frequently reported barrier to accessing assistive products across the surveyed countries was affordability (31 per cent) followed by lack of support to get them. Regarding funding for assistive products, out-of-pocket payments for assistive products were reported by a majority of users (66 per cent). Funding from family and friends was the second most common funding source. Users mainly got their assistive products from private shops, clinics or pharmacies (67 per cent) while self-made products and products from public services were other important sources. Most users (68 per cent) traveled less than 25 kilometers to obtain their assistive products, but some had traveled more than 100 kilometers.<sup>300</sup>

Various countries have taken measures to promote access to assistive technology (Figure 238). In 2021, among 70 countries, 89 per cent had at least one piece of legislation on access to assistive technology, and 99 per cent had at least one ministry or other authority responsible for access to assistive technology. Eighty per cent had a public budget allocated for assistive technology and 90 per cent had financing mechanisms in place to cover users' costs for assistive technology fully or partly. Seventy-six per cent of countries had assistive technology regulations, standards or guidelines in place. Thirty per cent had services in place for all six functional domains (cognition, communication, hearing, mobility, self-care and vision) across their entire territory, while the services in 49 per cent of countries did not cover all functional domains or the entire territory. Only 10 per cent of countries reported adequate and trained

human resources at all levels for all functional domains. An additional 30 per cent of countries had human resources only for some functional domains (mainly mobility, vision and hearing). In relation to training, 21 per cent of countries had training and education on assistive technology for all functional domains, while 43 per cent of countries had training and education for some functional domains (mainly mobility, vision and hearing).<sup>300</sup>

**Figure 238. Percentage of countries with measures to promote access to assistive technology, by type of measure, in 70 countries, in 2021.**



*Note: The six functional domains are cognition, communication, hearing, mobility, self-care and vision. Full coverage refers all six functional domains covered or covers entire territory. Partial coverage refers to one to five functional domains covered or only part of territory covered.*

*Source: WHO & UNICEF (2022).<sup>300</sup>*

For many persons with disabilities, social protection systems are critical to financing the costs of assistive technology through different mechanisms such as health insurance, subsidies and direct provision.<sup>581</sup> Among the 63 countries that reported at least one financing mechanism to cover users' costs, 45 had a combination of measures.<sup>300</sup> However, in most developing countries, the costs of assistive technology are covered out-of-pocket or from families and friends, with government support being less frequent. This is explained by two main elements: the limited scope of assistive technology covered by existing social

protection or universal health coverage schemes combined with the limited coverage of those schemes due to issues related to disability certification, access to information and indirect costs of accessing assistive technology, such as transport, which are rarely covered by those schemes.<sup>582,583</sup>

Having legislations and responsible government bodies in place does not necessarily guarantee that assistive technology is available to those in need. Similarly, public budgets and multiple financing mechanisms do not necessarily cover the costs sufficiently to obtain assistive technology. Moreover, shortfalls in well-trained workforces and service provision likely exacerbate the lack of necessary support for people to access assistive products and to use them safely and effectively.<sup>300</sup>

To support countries in their efforts to improve the access to assistive technology, WHO published a global priority assistive products list in 2016. It is not a restrictive list but aims to provide States with a model from which to develop national lists of priority assistive products. Since then, at least seven countries have adopted national lists of priority assistive products (for an example, see Box 13).<sup>584</sup>

#### **Box 13. Improving access to good quality and affordable assistive products in Nepal**

In 2018, the Ministry of Health and Population of the Government of Nepal published a national priority assistive product list. The list contains 45 assistive products and recommends 13 assistive products for emergencies. Guiding principles for budgeting, supply and provision were published and actions were set for improving access to the priority assistive products. In May 2022, standards for assistive technology were approved by the Ministry of Health and Population, which include measures on the responsibility of institutions and personnel in the provision of assistive products, the quality requirements and regulations on prices for the 45 priority assistive products.

*Source: Government of Nepal (2018)<sup>585</sup> and Gurung (2022).<sup>586</sup>*

A number of factors can affect the availability of assistive technology at the national level, including intellectual property rights, international trade and international cooperation. These factors can particularly impact countries with low resources that cannot produce or finance the assistive technology they need.

Access to innovative assistive technology needs to become widespread to ensure that no one is left behind. Inventions related to innovative assistive technologies are often disclosed through patents. Patents offer their owners an exclusive right to prevent others from commercially exploiting a patented invention for a limited period of time in the countries or regions in which the patent has been granted. At the same time, patents are a source of technical information and help stimulate follow-on innovations because detailed information about an invention must be disclosed to the public by a patent applicant seeking to obtain an exclusive right over their invention. More than 132,000 inventions related to assistive technology have been patented worldwide from 1998 to 2019, with 88 per cent of these patents corresponding to conventional assistive technology (i.e., innovations on well-established technology, such

as hearing aids) and 12 per cent to emerging assistive technology (i.e., innovations that improve conventional technology or introduce novel solutions, such as brain-computer interfaces). Some of these inventions have been filed as patents in more than one country. Patent protection for conventional assistive technology is sought primarily in China (41 per cent), the United States (27 per cent) and Japan (21 per cent) – and 16 per cent in other countries.<sup>587</sup> Patent protection for emerging assistive technology is sought primarily in China (44 per cent of patent families from 1998 to 2019) and the United States (38 per cent) – and 18 per cent in other countries.<sup>587</sup>

International trade of assistive products is concentrated in developed countries: they account for 74 per cent of the value of exports of assistive products in the world and 82 per cent of the value of imported assistive products (see chapter on targets 17.10-17.12). Per capita value of imports of assistive products is five times higher in Europe, Northern America and Oceania than in Asia, Latin America and the Caribbean, and sub-Saharan Africa. Barriers to trade persist in assistive products. Many assistive products have taxes imposed at the border in the form of tariffs. Tariffs on some assistive products remain high. Depending on the type of assistive product, 29 to 97 per cent of least developed countries apply non-zero tariffs; and 21 to 80 per cent of other countries apply non-zero tariffs. The average applied tariff is 5 per cent for wheelchairs, orthotics and prosthetics and hearing aids; 5-10 per cent for spectacles and lenses. Behind these average values, lies a wide range of tariffs applied, sometimes as high as 35 per cent (see chapter on targets 17.10-17.12).

International cooperation can play a major role in facilitating access to and sharing of assistive technology, including through technical and economic assistance as well as transfer of technologies. From 2018 to 2021, only a small percentage of disability-related bilateral aid focused on widen access and provide training on assistive technology (0.1 per cent, corresponding to 19 million US dollars).<sup>588</sup> This aid came from various donors, with the United Kingdom providing most of this aid (61 per cent), followed by Norway (23 per cent), Canada and Italy (4 per cent), Finland (3 per cent), Czech Republic and Japan (2 per cent), Austria (0.4 per cent) and Poland (0.1 per cent). Philanthropic foundations contributed with 2 per cent of this aid. Among the bilateral aid to assistive technology, 64 per cent was directed at multiple countries worldwide, 25 per cent at countries in Asia and the Pacific, 7 per cent at countries in Africa, 3 per cent at countries in the Americas and 0.2 per cent at countries in Europe.<sup>588</sup> Eight per cent of the bilateral aid focusing on assistive technology was directed at least developed countries.<sup>588</sup>

In an international effort to accelerate the availability of assistive technology for those who need it, ATscale, a global partnership for assistive technology, was launched in 2018 with the goal of catalyzing action to reach 500 million more people with assistive technology by 2030.<sup>589</sup>

## Impact of the COVID-19 pandemic

During the COVID-19 pandemic 2020-2022, cost and availability of assistive products and services were affected, leading to increasing unmet needs.<sup>590</sup> Access barriers to assistive products and services, such as training and repair, were exacerbated worldwide due to disruption of supply chains, social distancing requirements, and strains placed on health care, education, and other economic and social systems.<sup>591,590,592</sup> In some countries, persons with disabilities suffered increased socioeconomic impact of the pandemic, such as job losses and reduced income (see chapters on Goals 1 and 8), leading to additional barriers to afford the assistive technology they needed. Moreover, rising inflation since the start of the COVID-19 pandemic has impacted the cost of assistive technology. For example, in the Maldives, inflation was 8 per cent for assistive products in the first quarter of 2022, compared to a national inflation rate of 0.6 per cent.<sup>593</sup>

### Box 14. The impact of the COVID-19 pandemic on the use of and access to assistive technology in Sweden

In Sweden, a large majority of the users (86 per cent) used their assistive products as much during the COVID-19 pandemic as before the pandemic. Among those that used their assistive products less (5 per cent) or more (8 per cent) during the pandemic, the major reasons for changes in use were the same, namely: choosing to stay at home (25 per cent and 11 per cent), studying or working from home (18 per cent and 24 per cent) and doing different activities than before the pandemic (12 per cent for both groups). Less frequent reasons for changes in the use of assistive products were deteriorating health, keeping distance and others.

During the pandemic, 13 per cent of these users needed to acquire at least one assistive product and 9 per cent needed to get their assistive product serviced or repaired. Among those that needed to acquire an assistive product, 10 per cent reported that the delivery of the assistive product was delayed because of the pandemic. Similarly, among those that needed their assistive product serviced or repaired, 16 per cent reported delays in the service or repair because of the pandemic.

*Source: Borg and Zhang (2022).<sup>594</sup>*

A study conducted in 2020-2021 among persons with disabilities in 24 countries around the world, found a decrease in access to needed assistive technology when comparing pre- and post-COVID-19 access: only 37 per cent of persons with disabilities could use human support like personal assistance post-COVID-19 compared to 92 per cent before COVID-19; only 49 per cent of persons with disabilities could use mobility products like wheelchairs post-COVID-19 compared to 86 per cent before COVID-19; only 4 per cent of persons with disabilities could use hearing products like hearing aids post-COVID-19 compared to 19 per cent before COVID-19.<sup>595</sup> The negative impact on access to assistive technology was already felt early in the pandemic. In a study in March-April 2020, 32 per cent of persons with



disabilities indicated that the COVID-19 crisis had decreased their access to personal assistance, wheelchair replacement and repair, or accessibility services such as sign language interpretation.<sup>596</sup> However, the situation was not heavily disrupted in all countries (see Box 14).

## Summary of findings and the way forward

Target 17.8 calls for enhancing the use of enabling technology and universal access to assistive technology is essential to ensuring equal social, economic and political participation of persons with disabilities, which in turn is integral to the implementation of all Goals of the 2030 Agenda for Sustainable Development. However, much work remains to be done until everyone, everywhere, uses the assistive technology they need without delay or financial or other hardships.

In countries with low levels of the human development index, only 11 per cent of the persons who need assistive products can get them; in countries with medium levels of the human development index, only 33 per cent. The most frequent barrier to accessing assistive products is cost, with this barrier being experienced by 31 per cent of those who cannot access the assistive products they need. Although 90 per cent of countries have a financing mechanism in place to fully or partially cover the users' costs for assistive technology, in practice, in most developing countries, the cost of assistive technology is covered out-of-pocket or from families or friends.

During the COVID-19 pandemic, rising inflation, especially on assistive technology, reduced income and financial means to afford the technology, disruptions in supply chains, access barriers created by lockdowns and other strains placed on supplying systems, lead to higher unmet needs for assistive technology in many countries. For personal assistance and hearing aids, fewer than half the number of persons used them during the pandemic compared to before the pandemic.

Over the past few years, several promising steps have been taken by individual countries, regions and the international community to improve the access to assistive technology. More than 80 per cent of countries have laws, regulations and financing mechanisms to support access to assistive technology. Adequate services, human resources and education on assistive technology has progressed more slowly, with less 50 per cent of countries providing these. At least seven countries have developed national lists of priority assistive products to facilitate acquisition and prioritization of essential assistive technology.

The transfer of assistive technology from developed to developing countries can boost access to this technology worldwide. But overall, many developing countries receive insufficient aid for assistive technology, cannot import the technology they need and do not have resources to produce or finance their own research and innovations on assistive technology. Innovations are concentrated on a few countries, with more than 80 per cent of patents of assistive technology filed in China, Japan and the United States. Bilateral aid dedicated to providing access to assistive technology is small, corresponding to only 0.1 per cent of all bilateral aid dedicated to disability-inclusion. International trade of assistive

technology happens mostly from and to develop countries, leaving developing countries mostly outside this trade. In particular, per capita value of imports of assistive products is five times higher in Europe, Northern America and Oceania than in Asia, Latin America and the Caribbean, and sub-Saharan Africa. Trade barriers persist, with trade tariffs for some assistive products as high as 35 per cent.

The ATScale partnership launched in 2018 aims at meeting the assistive technology needs of 500 million persons by 2030. This will cover a substantial part of the numbers of persons with unmet needs for assistive technology, which is expected to be over 1.2 billion by 2030. For the remaining 700 million, current bilateral aid to assistive technology, if kept at the same level as in the past years, will provide 4 cents of a US dollar for each remaining person with an unmet need for assistive technology, a level too low to cover the costs of assistive technology, which can range from a few US dollars to several thousand US dollars depending on the assistive product/service.

To address the remaining unmet needs of assistive technology by 2030, existing national, regional and international initiatives need to be expanded or complemented by other initiatives. In particular, to accelerate and better coordinate efforts to progressively improve access to assistive technology, the following recommendations should be considered:

**1. Improve awareness and access to safe, effective and affordable assistive technology.** Introduce, expand or advance systems and programmes for the provision of assistive technology. Strengthen regulatory systems, standards and procurement processes to ensure that assistive products are safe, effective and affordable. Enlarge, diversify and improve workforce capacity at all levels for the provision of assistive products, and increase the capacity of government officials to administer, manage and supervise assistive technology programmes. Develop and invest in enabling environments to ensure barrier-free access and use for all, including users of assistive products. Increase awareness about the benefits and availability of assistive technology among policy-makers, duty bearers, media and public at large.

**2. Involve users of assistive products and their families as well as representative organizations of persons with disabilities in policy development and programme planning.** Ensure that they have access to necessary information and knowledge about assistive products and related services and schemes, in accessible formats.

**3. Invest in data and research on unmet needs for assistive technology to guide policy making.** Invest in data by monitoring needs for and access to assistive technology and the capacity of countries to meet those needs. Invest in research on innovation in and an enabling ecosystem for assistive technology to ensure that assistive products and related services meet identified needs. Formulate and implement evidence-based policies and laws to support the provision of assistive technology on the basis of evidence.

**4. Include assistive technology in emergency and humanitarian responses.** Train all stakeholders involved in humanitarian assistance on assistive technology and make assistive technology accessible to frontline staff. Ensure that the production, distribution, delivery and provision of assistive products are resilient to disruptions in supply and service chains during pandemics and other crises.

**5. Provide technical and financial assistance through international cooperation.** Support national efforts, especially in least developed countries, in areas such as research, policies, regulations, fair pricing, market shaping, product development, technology transfer, manufacturing, procurement, supply, service provision and human resources.

**6. Encourage local and regional production of assistive products.** Support technology transfer and waivers of intellectual property rights, while creating incentives for innovation, research and development in the assistive technology sector.

**7. Reduce barriers to international trade of assistive technology to help make this technology available for all persons with disabilities who need it.** Promote trade of assistive technology among developing countries. Keep commitments on imports and exports of assistive technology during global health emergencies and other crises.

## International trade (targets 17.10 to 17.12)

This section will focus on the role of international trade as a means of improving access to assistive technology and empowering persons with disabilities, thus supporting the implementation of the SDGs by, for and with persons with disabilities. International trade can promote inclusive practices, including inclusive labour, through trade agreements incorporating clauses promoting the rights and inclusion of persons with disabilities.

Assistive technology is crucial to ensure the inclusion and participation of persons with disabilities, their independent living, the realization of their rights and, for some persons with disabilities, assistive technology is essential for their survival. International trade of assistive technology can affect the supply, availability and affordability of this technology in countries and is therefore an important mean of implementation of the SDGs for persons with disabilities at the global level. Restrictions on exports, high tariffs and other trade barriers can be an obstacle for countries to export and import assistive technology. The application of custom duties/tariffs on assistive technology can render this technology unaffordable for many persons with disabilities. It is important to establish effective supply and delivery chains to improve the provision of assistive technology around the world and create a favourable market environment that can eliminate unmet needs for assistive technology (for more information on unmet needs for assistive technology, see chapter on Goal 10).

In the 2030 Agenda, targets 17.10, 17.11 and 17.12 call for the promotion of a universal, rules-based, open, non-discriminatory and equitable multilateral trading system, for a significant increase in the exports of developing countries, in particular with a view to doubling the least developed countries' share of global exports by 2020 and for the realization of a timely implementation of duty-free and quota-free market access on a lasting basis for all least developed countries.

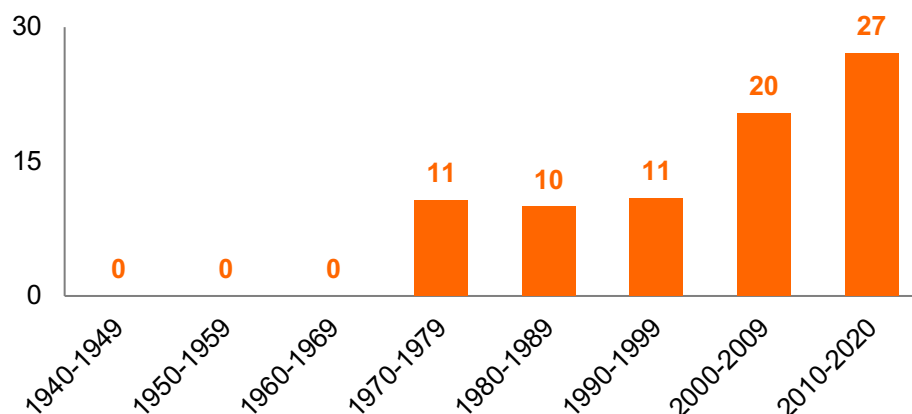
This section will provide an overview of the inclusion of disability provisions in trade agreements. This section will also analyse trends in exports and imports of assistive technology from/to developed countries and developing countries, as well as trends in imposed custom duties/tariffs on such products, with a focus on the case of least developed countries. Based on this evidence, the section will put forward recommendations for ensuring that international trade acts as an effective mean of empowering persons with disabilities and improving access to assistive technology, thus supporting the implementation of the SDGs by, for and with persons with disabilities.

## Current situation and progress so far

Better economic opportunities for persons with disabilities can be promoted through their integration in international trade. In particular, free trade agreements are a useful tool that can help integrate persons with disabilities into the economy, by removing barriers to their participation in economic life and by creating business and employment opportunities. The agreements can be used to incentivize negotiating

partners to implement changes at domestic level in exchange for market access.

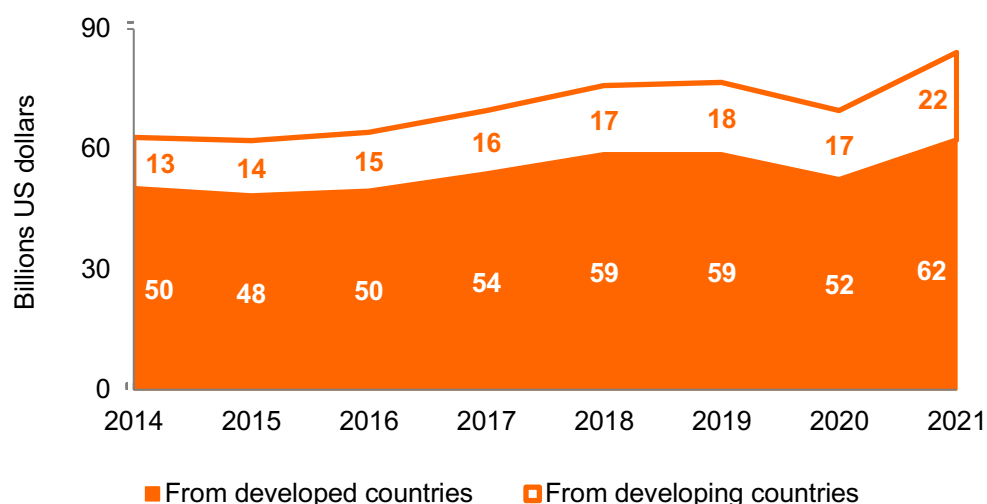
**Figure 239. Percentage of preferential trade agreements that include clauses related to persons with disabilities, by decade, from 1940 to 2020.**



Source: Jaramillo (2022).<sup>597</sup>

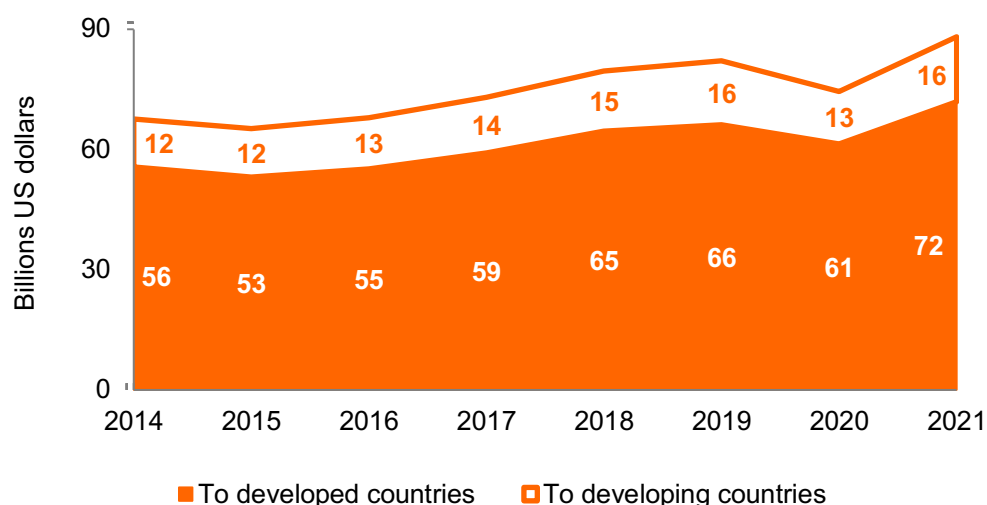
An increasing number of preferential trade agreements has included clauses relating to persons with disabilities (Figure 239). Before 1970, no preferential trade agreements included such clauses. These clauses started to be included in the 1970s, with 11 per cent of preferential trade agreements including them, a percentage that increased sharply from 2000 onward leading to 27 per cent of preferential trade agreements negotiated in 2010-2020 including clauses related to persons with disabilities. The impact of these provisions can be significant as more than a third of international trade is estimated to be carried out under preferential trade agreements.<sup>597</sup> The clauses introduced in agreements since the 1970s provide for non-discrimination (2 per cent of preferential trade agreements), allowing movement of workers across states while maintaining disability pensions (22 per cent of preferential trade agreements), inclusion of persons with disabilities through inter-alia professional skills development for persons with disabilities (3 per cent of preferential trade agreements), cooperation among parties on policymaking related to the rights and inclusion of persons with disabilities (6 per cent of preferential trade agreements) and maintaining and creating policies protecting persons with disabilities (69 per cent of preferential trade agreements). A similar analysis but focusing on free trade agreements currently in effect notified to the World Trade Organization found that almost a third — 27 per cent — of these agreements contain provisions on trade and disability (as opposed to only 20 per cent on gender).<sup>598</sup>

**Figure 240. Total value of exports of assistive products, in billions of US dollars, from developing countries and developed countries, from 2014 to 2021.**



Source: Data provided by the PAHO/WHO Collaborating Center on Rehabilitation and Assistive Technology (on the basis of data from the International Trade Centre's Trade Map<sup>599</sup>).

**Figure 241. Total value of imports of assistive products, in billions of US dollars, to developing countries and developed countries, from 2014 to 2021.**



Source: Data provided by the PAHO/WHO Collaborating Center on Rehabilitation and Assistive Technology (on the basis of data from the International Trade Centre's Trade Map<sup>599</sup>).

Trade liberalization and trade agreements can also empower persons with disabilities to have more affordable access to assistive devices. Internationally comparable data is available to analyse the international trade of a selected list of assistive products: (i) glasses and lenses, (ii) hearing aids, (iii)

orthotics and prosthetics, (iv) wheelchairs and (v) other articles used by persons with disabilities to compensate for an impairment. Exports of these assistive products grew 33 per cent between 2014 and 2021, from 63 billion US dollars in 2014 to 84 billion US dollars in 2021, showing a consistent increase in the trade flow throughout this period, with the exception of 2020, the first year of the COVID-19 pandemic in which there was a drop of more than 10 per cent in these exports (Figure 240). For glasses and lenses, orthotics and prosthetics, and wheelchairs, the total value of exports increased by 25 to 40 per cent from 2014 to 2021; for hearing aids, the total value of exports showed a much larger increase in the same period (82 per cent), mainly due to a sharp increase in 2021.

Globally, in 2021, the total value of imports of assistive products was 88 billion US dollars (Figure 241). The difference between import and export values (4 billion US dollars), which is attributed inter-alia to freight and insurance costs,<sup>600</sup> is much higher for orthotics and prosthetics (10 per cent of the cost of exports) than for other assistive products.

**Figure 242. Percentage of the exported values of assistive products from developing and developed countries to developing and developed countries, in 2021.**

*Source: Data provided by the PAHO/WHO Collaborating Center on Rehabilitation and Assistive Technology (on the basis of data from the International Trade Centre's Trade Map<sup>599</sup>).*

The participation of developing countries in the global market of assistive technology is low, both as importers and as exporters. As exporters, developing countries have a small share of the global market of assistive technology, and this share has changed minimally from 2014 to 2021. In 2021, their share for various assistive products was between 14 to 48 per cent of the world export values. As importers, developing countries have also a small share of the market. In 2021, the share of developing countries in

the global value of imported assistive technology was only 18 per cent, a value that has remained stagnant since 2014. Developing countries have a smaller share of the market in 2014-2021 for every assistive product: the shares by type of assistive product were 3 to 6 times less the share of developed countries. The share of developing countries was especially low for hearing aids, orthotics and prosthetics and wheelchairs.

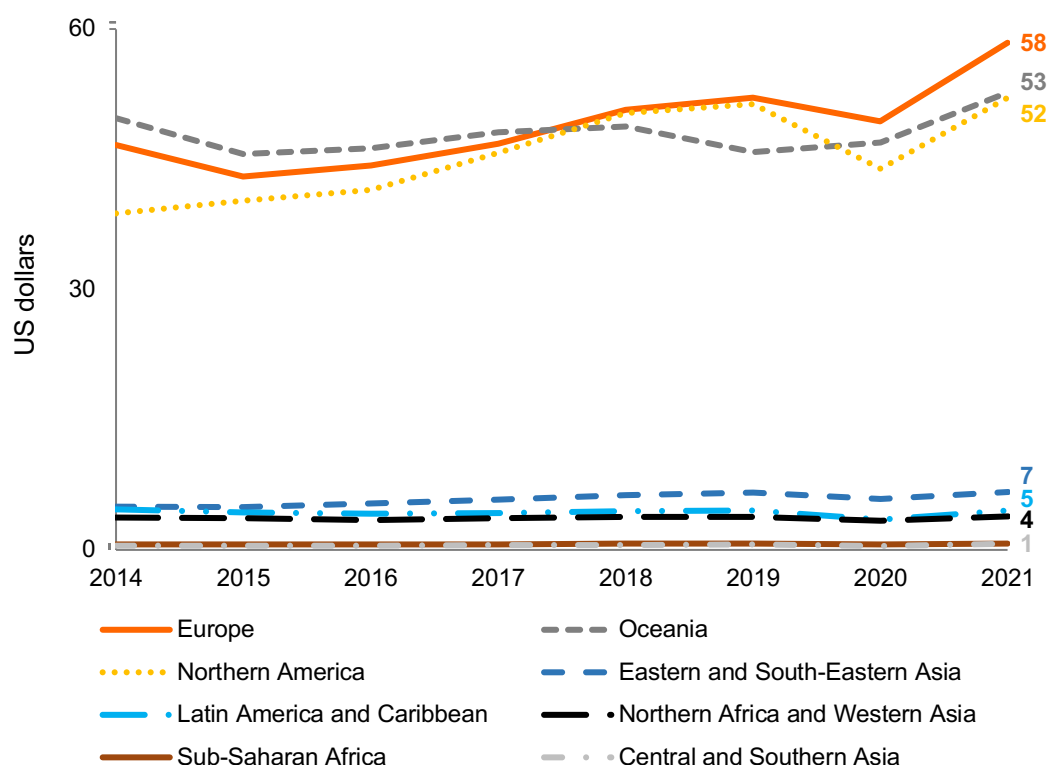
International trade of assistive products happens mostly among developed countries and to developed countries (Figure 242). In 2021, 84 per cent of the exported value of assistive products (93 per cent in the case of wheelchairs) was exported from developed countries to other developed countries, a situation that has not changed much since 2014. Also in 2021, 74 per cent of the exported value of the assistive products exported by developing countries also went to developed countries – with little variation by type of assistive product (ranging from 69 to 86 per cent). These percentages have grown for all assistive products since 2014, indicating that developed countries are getting an increasing share of exports of assistive products from developing countries.

Both export and import values of assistive technology in developing countries grew between 2014 and 2021: from 13 to 22 billion US dollars for exports and from 12 to 16 billion US dollars for imports (Figure 240 and Figure 241). However, this growth has not been enough to change the overall share of developing countries in world export and import values. For exports, the share of developing countries increased slightly from 21 per cent in 2014 to 26 per cent in 2021; for imports it remained at 18 per cent in 2014 and 2021.

In the period 2014-2021, the total value of imports of assistive technology to Central and Southern Asia grew 64 per cent, followed by Northern America (41 per cent), Eastern and South-eastern Asia (40 per cent) and sub-Saharan Africa (33 per cent). In all other regions growth was below 30 per cent. Despite the growth in imports to Asia and sub-Saharan Africa, the imported value per capita in these regions in 2021 was still considerably lower than the world average of 12 US dollars per capita (Figure 243), with Europe, Northern America and Oceania showing the highest imported values per capita (above 50 US dollars per capita). Per capita value of imports in these regions was almost five times the world average in 2021.



Figure 243. Per capita value of imports of assistive products, by region, from 2014 to 2021.



Source: Data provided by the PAHO/WHO Collaborating Center on Rehabilitation and Assistive Technology (on the basis of data from the International Trade Centre's Trade Map<sup>599</sup>).

#### Box 15. Types of tariffs

There are three types of tariffs: *bound rates*, *most-favoured nation (MFN) tariffs* and *preferential tariffs*. *Bound rates* are specific commitments made by individual World Trade Organization (WTO) member states, acting as a maximum for any applied tariff on an import from another country, i.e. the country commits to never apply more than the bound rates to an imported product. By binding their tariffs, countries improve the predictability of the market. *Most-favoured nation (MFN) tariffs* are tariff rates a country applies on imports from countries that are members of the WTO. MFN tariffs are always lower than the bound tariffs and are the tariffs that are usually applied in practice. MFN tariffs are not imposed on imports if the countries are part of a preferential trade agreement, in which case mutually agreed *non-MFN (preferential) rates* — lower than MFN tariffs — apply. These agreed *non-MFN (preferential) rates* are not necessarily reciprocal.

A key factor in the international trade of assistive technology are tariffs. A tariff is a tax on imports or exports of goods between countries. They are usually calculated as a percentage of the value of the product. Tariffs are not paid by the exporting country but are passed on to the consumers in the importing

country thus raising the prices of imported products. Analysing customs tariffs is important as they inform about the predictability of the market and assist in identifying areas for international orchestrated action and negotiation in order to reduce barriers to trade and facilitate and improve the supply and availability of imported assistive products.

Assistive products are subject to several different types of tariffs (bound, MFN, and non-MFN preferential tariffs – see Box 15). By committing to bound tariffs, countries set a maximum tariff value that can be imposed on the traded product, hence improving market predictability. Bound tariffs are rarely applied in practice, as the de facto applied tariffs are MFN tariffs and, for countries in trade agreements, the tariffs applied are (non-MFN) preferential tariffs.

The percentage of countries that bounds their tariffs on assistive products is lower for least developed countries (LDCs) than for other countries and territories: depending on the type of assistive product, 40-50 per cent of LDCs but 80-90 per cent of other countries and territories bind their tariffs. The number of LDCs that choose to bind their tariffs at 0 per cent is close to zero, while 30-40 per cent of other countries and territories choose to do it. Spectacles and their components are the most significant exception, with only a few countries (less than 10 per cent of reporting countries with bound tariffs) choosing to bind their tariffs at 0 per cent. When not zeroed, the median average of the bound tariff for LDCs is slightly higher than that of other countries and territories. For wheelchairs, the median average bound tariff for all countries is 35 per cent; for orthotics and prosthetics, it is 45 per cent for LDCs and 35 per cent for other countries/territories; for spectacles and lenses, it is 30-45 per cent for LDCs and 20-30 for others; and for hearing aids, it is 50 for LDCs and 35 for other countries/territories.

In both groups (LDCs and other countries/territories), for hearing aids, wheelchairs, orthotics and prosthetics, and other articles used by persons with disabilities to compensate for an impairment, about 60 to 70 per cent of countries reporting MFN tariffs chose to set them at 0 per cent (Table 8). For glasses and spectacles, the percentage is much lower for both groups of countries, less than 30 per cent among LDCs and less than 50 per cent among other countries and territories. The median average duty used as MFN tariff is low in both groups (between 5 and 10 per cent), with a slightly broader range among LDC countries. Again, spectacles and their components are different from other groups of assistive products, with slightly higher median average tariffs and broader tariff ranges. Overall, LDCs often have a broader range of MFN tariffs, lower binding status and higher bound tariffs, indicating that they have more flexible and less predictable trade policies on assistive products.

While only a few countries and territories report preferential tariffs resulting from trade agreements (circa 15-20 per cent for both LDCs and other countries/territories), the tariff values set in these agreements are often 0 per cent (frequently, more than 80 per cent of the preferential tariffs reported by both LDCs and other countries/territories).

**Table 8. Percentage of countries that do not impose tariffs on the imports of various assistive products (i.e. with MFN tariffs set at zero for these products), median tariff and tariff range for countries with MFN tariffs not set at zero, for least developed countries (LDC) and other countries, in 2021.**

<b>Assistive product</b>	<b>Countries with MFN Tariffs at 0 per cent</b>	<b>Median MFN Tariff for countries with MFN tariffs not set at zero (per cent of the value of the product)</b>	<b>MFN Tariffs Range for countries with MFN tariffs not set at zero (per cent of the value of the product)</b>
Wheelchairs, not mechanically propelled <sup>601</sup>	LCD: 71 per cent Other: 78 per cent	LCD: 5 per cent Other: 5 per cent	LCD: 3-26 per cent Other: 2-12 per cent
Wheelchairs, motorized or mechanically propelled <sup>602</sup>	LCD: 69 per cent Other: 79 per cent	LCD: 5 per cent Other: 5 per cent	LCD: 3-26 per cent Other: 2-10 per cent
Parts and accessories of wheelchairs <sup>603</sup>	LCD: 63 per cent Other: 77 per cent	LCD: 5 per cent Other: 6 per cent	LCD: 3-26 per cent Other: 2-20 per cent
Hearing aids <sup>604</sup>	LCD: 71 per cent Other: 71 per cent	LCD: 5 per cent Other: 5 per cent	LCD: 1-26 per cent Other: 1-20 per cent
Orthopedic appliances <sup>605</sup>	LCD: 66 per cent Other: 63 per cent	LCD: 5 per cent Other: 5 per cent	LCD: 1-26 per cent Other: 0-14 per cent
Artificial joints for orthopedic purposes <sup>606</sup>	LCD: 66 per cent Other: 67 per cent	LCD: 5 per cent Other: 5 per cent	LCD: 1-26 per cent Other: 1-10 per cent
Artificial parts of the body <sup>607</sup>	LCD: 71 per cent Other: 67 per cent	LCD: 5 per cent Other: 5 per cent	LCD: 1-26 per cent Other: 1-30 per cent
Glasses for corrective spectacles <sup>608</sup>	LCD: 20 per cent Other: 50 per cent	LCD: 5 per cent Other: 5 per cent	LCD: 3-26 per cent Other: 1-20 per cent
Contact lenses <sup>609</sup>	LCD: 20 per cent Other: 41 per cent	LCD: 5 per cent Other: 5 per cent	LCD: 2-26 per cent Other: 1-20 per cent
Spectacle lenses of glass <sup>610</sup>	LCD: 29 per cent Other: 40 per cent	LCD: 8 per cent Other: 7 per cent	LCD: 2-26 per cent Other: 0-32 per cent
Spectacle lenses of materials other than glass <sup>611</sup>	LCD: 23 per cent Other: 43 per cent	LCD: 8 per cent Other: 7 per cent	LCD: 2-26 per cent Other: 0-32 per cent
Frames and mountings for spectacles, goggles or the like, of plastics <sup>612</sup>	LCD: 9 per cent Other: 31 per cent	LCD: 10 per cent Other: 8 per cent	LCD: 2-30 per cent Other: 0-35 per cent
Frames and mountings for spectacles, goggles or the like (excluding of plastics) <sup>613</sup>	LCD: 3 per cent Other: 33 per cent	LCD: 10 per cent Other: 8 per cent	LCD: 2-30 per cent Other: 2-35 per cent
Parts of frames and mountings for spectacles, goggles or the like <sup>614</sup>	LCD: 3 per cent Other: 32 per cent	LCD: 5 per cent Other: 5 per cent	LCD: 2-30 per cent Other: 1-35 per cent
Spectacles, goggles and the like, corrective, protective or other <sup>615</sup>	LCD: 6 per cent Other: 20 per cent	LCD: 8 per cent Other: 8 per cent	LCD: 2-26 per cent Other: 2-30 per cent
Other articles used by persons with disabilities to compensate for an impairment <sup>616</sup>	LCD: 63 per cent Other: 67 per cent	LCD: 5 per cent Other: 5 per cent	LCD: 0-5 per cent Other: 0-10 per cent

Source: Data provided by the PAHO/WHO Collaborating Center on Rehabilitation and Assistive Technology (on the basis of data from International Trade Centre's Trade Map).<sup>599</sup>

Among the various assistive products, spectacles and their components have the highest percentage of countries in both LDCs and other countries/territories reporting preferential tariffs, including by zeroing them, showing that establishing trade agreements is used as an alternative to bound and MFN tariffs for this group of assistive products. In general, for all assistive products, LDCs show a narrower range of preferential tariffs than other countries and territories.

Lack of internationally comparable data hampers a comprehensive analysis of exports and imports for all assistive products. The Priority Assistive Products List, released by WHO in 2016, includes 50 priority assistive products selected on the basis of their widespread need and impact on a person's life. Yet, available data on international trade, only allow to analyse trade for 30 per cent of these products. It is not possible to track priority assistive products such as Braille writing equipment, deafblind communicators, handrails and grab bars, personal digital assistants, screen readers and ramps, among others.

Tariffs are just one aspect regulating international trade of assistive products. Without adequate trade policies and agreements, the promised benefit that eliminating tariffs will lead to wider availability and reduced cost of assistive technology will not materialize. For instance, to ensure fair trade practices and harmonization of trade policies, trade agreements have obligated countries to harmonize their policies and eradicate subsidies. But elimination of subsidies has had a negative impact into the availability and cost of assistive products, as it has deterred governments from offering financial benefits for the manufacturing or sale of assistive devices. Trade agreements have also exerted pressure into a greater privatization of the assistive technology industry. This has resulted in higher prices of assistive devices to allow private companies to increase their share of profits. Moreover, trade agreements have also pushed acceleration towards private insurance systems and reduced the policy space for governments to provide publicly-funded medical and social protection benefits, leading to the absence of the social programmes and schemes that previously provided persons with disabilities with subsidized or cost-free access to assistive technology. This left persons with disabilities relying on private insurance coverage, their own incomes or that of their families, which in many cases are insufficient to pay for the assistive technology that persons with disabilities require.<sup>617</sup>

The WTO's Agreement on Trade-Related Aspects of Intellectual Property Rights, and similar intellectual property rights' commitments in preferential trade agreements, have further increased the cost of access to assistive technology as they have enabled private stakeholders to retain ownership of the intellectual property of the technology they design and manufacture. Intellectual property provisions in trade agreements ensure protection for the creation of innovative assistive products. The creation of these products sometimes requires a high sunk cost in the form of investment in research and development. This is the case with assistive products such as wheelchairs, Braille printers, portable note taking devices, and screen reading software. Intellectual property provisions restrict the production and marketing of such products by other companies and provide exclusive rights to the investors/creators to offset the sunk cost. This is done to encourage more research and development investment by private stakeholders, which

can lead to more innovation in the creation of new assistive products. Therefore, intellectual property rights' protections can help persons with disabilities gain access to new innovative equipment that can further enhance their standard and quality of life. However, this protection may also lead to higher prices for such equipment as it allows the owners of the patented products to price them at their choice. As a result, trade agreements may have negative consequences on the affordability and availability of assistive products for persons with disabilities. In these situations, the promised benefit of trade liberalization for persons with disabilities of lower prices through the elimination of tariff barriers is not materialized. On the contrary, extended patent protection on assistive products can increase their cost in some countries.<sup>617</sup> Yet, if designed based on evidence to address these challenges, trade agreements can be an effective tool to overcome these barriers.

### Summary of findings and the way forward

The large majority of persons with disabilities, 80 per cent, lives in developing countries. Yet, international trade of assistive products is concentrated in developed countries: they dominate this trade as exporters and as importers. The developed countries combined account for 74 per cent of the value of exports of assistive technology in the world and developing countries 26 per cent. Imports are similarly concentrated: developed countries as importers account for 82 per cent of the value of imported assistive technology and developing countries 18 per cent. Most exports go from developed countries to developed countries. Per capita value of imports of assistive products varies by region, with Europe, Northern America and Oceania importing more than 50 US dollars of assistive products per capita, and Asia, Latin America and the Caribbean, and sub-Saharan Africa importing less than 10 US dollars of assistive products per capita.

Despite the growing value of exports from developing countries and imports to developing countries since 2014, their global share in imports and exports remained stagnant. Per capita value of imports to Europe, Northern America and Oceania has been consistently 5 times higher than in other regions since 2014. The COVID-19 pandemic impacted markedly the international trade of assistive products, causing a 10 per cent drop in the value of exported assistive products, a factor that may have impacted access to assistive technology during the pandemic (see chapter on Goal 10).

Barriers to trade persist in assistive technologies. Many assistive products have taxes imposed at the border in the form of tariffs. Tariffs on some assistive products remain high. Depending on the type of assistive product, 29 to 97 per cent of least developed countries apply non-zero MFN tariffs; and 21 to 80 per cent of other countries apply non-zero MFN tariffs.

For wheelchairs, the median average bound tariff — i.e. the maximum tariff that a country pledges to apply in its WTO agreements — is 35 per cent; for orthotics and prosthetics, it is 45 per cent for LDCs and 35 per cent for other countries/territories; for spectacles and lenses, it is 30-45 per cent for LDCs and 20-30 for others; and for hearing aids, it is 50 for LDCs and 35 for other countries/territories. The average

“applied” tariff on assistive products (MFN tariff) — the tariff typically used in practice — is considerably lower, at 5 per cent for wheelchairs, orthotics and prosthetics and hearing aids; 5-10 per cent for spectacles and lenses. Behind these average values, lies a wide range of tariffs applied, sometimes at high as 35 per cent. Moreover, the gap between the bound tariff rates and the applied tariff rates leaves ample legal room for increasing tariffs on these assistive products without violating WTO rules.

Only about 20 per cent of countries and territories report being part of trade agreements with preferential tariffs on assistive products and only about 80 per cent of the tariff values set in these agreements are set to 0 per cent. For these trade agreements, LDCs tend to apply higher tariffs on imports than other countries. The latter may pose challenges for persons with disabilities in LDCs to afford assistive products, especially as persons with disabilities in these countries are at higher risk of poverty and may be more likely to face challenges affording assistive technology than persons with disabilities in other countries. Moreover, only about 20 per cent of LDCs have preferential trade agreements resulting in tariffs of 0 per cent.

Goal 17 calls for favourable terms for exports for least developed countries, namely duty-free access to markets in other countries. For assistive products and their vital role to leave no person with disabilities behind, duty-free access worldwide can assist in eliminating the unmet needs for assistive technology in all countries.

Apart from its role in ensuring wider availability of assistive technology, trade can also serve as an incentive to promote laws and practices to ensure the realization of the rights of persons with disabilities and their inclusion in society. Among preferential trade agreements negotiated in 2010-2020, 27 per cent included such clauses. Before 1970, none of the negotiated preferential trade agreements included such clause. At this rate of progress, about a third of preferential trade agreements is expected to include such clauses by 2030. To achieve an inclusion of these provisions in all trade agreements by 2030, the current rate of progress should accelerate 4 times.

To ensure that international trade acts as an effective mean of improving access to assistive technology, thus supporting the implementation of the SDGs by, for and with persons with disabilities, it is recommended:

**1. Monitor and promote the incorporation of disability inclusion provisions in trade agreements and ensure that international trade agreements do not perpetuate or exacerbate the inequalities experienced by persons with disabilities.** The integration of disability inclusion concerns, including for women with disabilities, in trade agreements can help maximize the positive impact and minimize the negative impact that trade agreements can have on the rights and interests needs of persons with disabilities.

**2. Reduce barriers to international trade of assistive technology to help make this technology available for all persons with disabilities who need it.** Import tariffs, export restrictions, and other

limitations on international trade in assistive technology continue to confound the hopes for eliminating the unmet need for assistive technology. Governments can work together at the World Trade Organization (WTO) to help meet this need, with the aim of finalizing new rules to support trading for assistive technology by eliminating duties/tariffs on assistive technology, extending this to cover all assistive technology, and to be applicable to all WTO members. They must ensure that WTO obligations that prohibit export restrictions are effectively applied in the trade of assistive technology. Ideally, these reforms could be included in a new trade agreement that would be fully multilateral. Another way trade can support the needs of persons with disabilities is through trade agreements containing waivers on intellectual property rights protection concerning assistive products to bring down their costs. Persons with disabilities and their representative organization should be consulted and involved in the development and negotiation of trade agreements on assistive products.

**3. Keep commitments on imports and exports of assistive technology during global health emergencies and other crises.** Countries can agree to limit the duration of restrictions on exports of critical assistive products during a pandemic and other global or regional crises and ensure that trade is not interrupted for countries in need. Reducing trade barriers for assistive technology can expand access to this technology in normal times while also bolstering preparedness for pandemics and other global or regional crises.

**4. Promote trade of assistive technology among developing countries. Cut tariffs and remove other trade barriers on assistive technology they import from each other.** Apart from promoting trade, such cuts reduce the final price to consumers in developing countries. Trade among developing countries can also facilitate manufacturing knowledge sharing, foster innovation, diversify import sources to improve resilience and build supply chains among developing countries.

**5. Improve the availability and quality of internationally comparable data on exports and imports of assistive products and on the tariffs applied to these products.** Exploring data on international trade and tariffs depends on a harmonized system of coding of products. However, current codes are not directly applicable to many assistive products. Furthermore, the available codes for assistive products correspond to very broad categories: there is a need for further detail in the classifications/codes of assistive products. The international community would benefit if these codes could be aligned with other references such as ISO 9999:2016 (Assistive products for persons with disability), which establishes a widely accepted classification and terminology of assistive products, increasing data comparability internationally.

**7. Conduct research on the impact of trade and trade agreements on the inclusion and participation of persons with disabilities in society and development.** More data is needed to understand the impact of existing trade agreements on persons with disabilities, and to evaluate differences in impact for men versus women with disabilities.

## Increasing the availability of data (target 17.18)

This section will discuss the collection and availability of statistical data on persons with disabilities, including data disaggregated by disability, and reflect on the impact of the COVID-19 pandemic on the collection and availability of these data.

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 status. The Convention on the Rights of Persons with Disabilities 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 (Article 31). States Parties are encouraged to disseminate the statistics and ensure their accessibility to persons with disabilities and others.

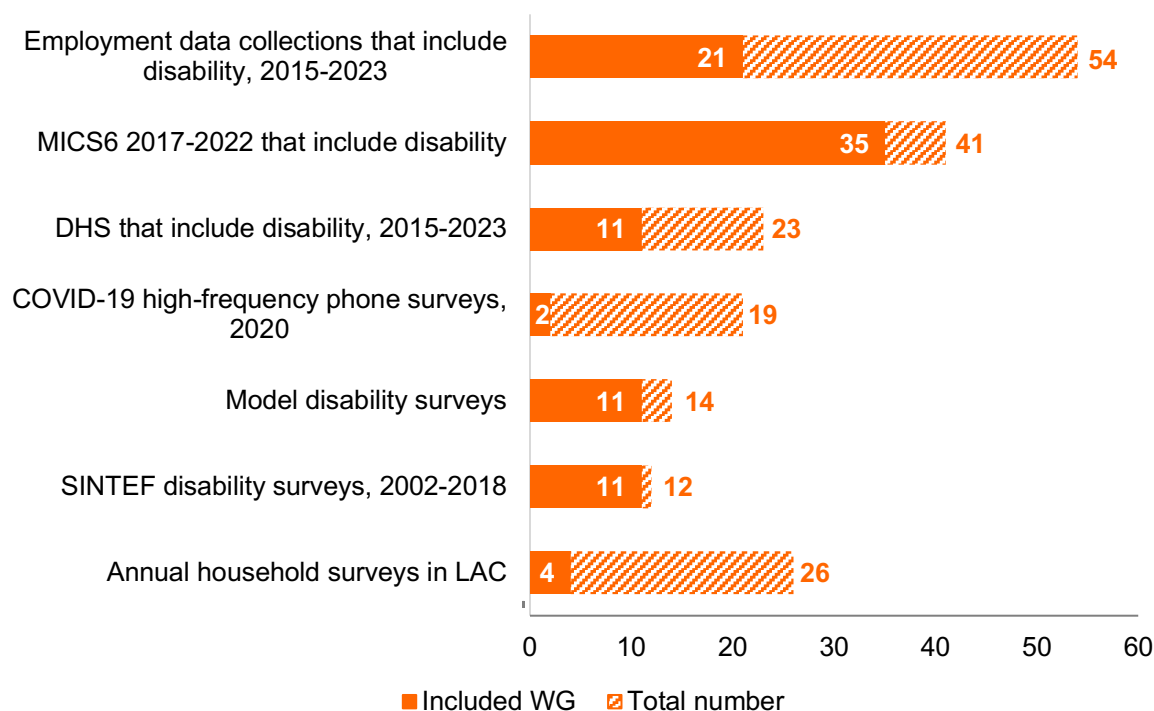
Since then, there have been further calls from the UN General Assembly and the World Health Assembly for countries to collect data on persons with disabilities and for United Nations entities and relevant international organizations to support countries in collecting, processing, analysing and disseminating data on disability.<sup>618</sup>

## Current situation and progress so far

Major international efforts to increase the availability of disability data date as back as the 1980s, and these efforts were further intensified with the adoption of the CRPD in 2006 and the 2030 Agenda in 2015, promising to “leave no one behind”. An increasing number of countries has been including disability questions in their data collections in order to assess the gaps between persons with and without disabilities and to understand the enablers and the barriers persons with disabilities face in participation in society and in their daily lives. In 2015-2023, 54 data collections on employment, 43 multiple indicator cluster surveys (MICS), 22 demographic and health surveys (DHS) and 19 COVID-19 high-frequency phone surveys (HFPS) compiled information on persons with disabilities (Figure 244). Model Disability Surveys have been conducted in 25 countries; and the SINTEF disability surveys have been conducted in 23 countries. Also, since 2005, many countries have included disability questions in their national censuses (Figure 245): 74 countries in 2005-2014 and 51 countries in 2015-2022.



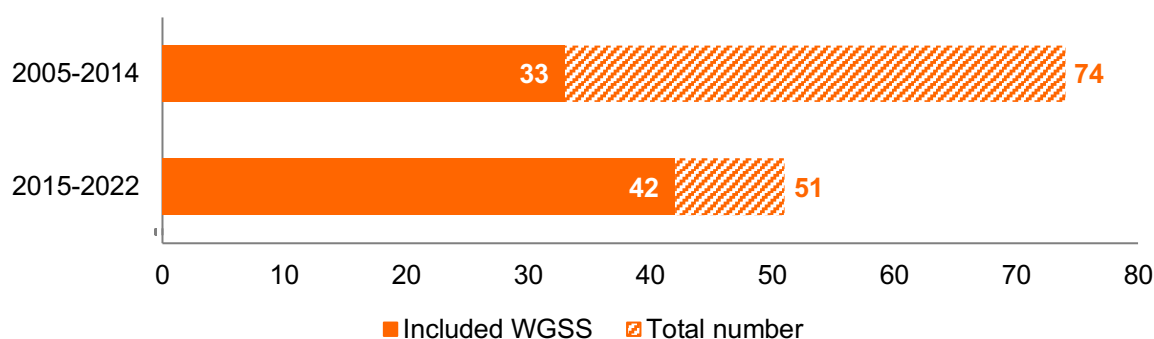
**Figure 244. Number of countries with selected data collections and number of those that included the Washington Group short set of questions (WG).**



*Note: Employment data collections refer to the most recent data available in ILO records. DHS refers to demographic and health surveys. LAC refers to Latin American and the Caribbean.*

*Source: DHS,<sup>6</sup> DDI 2021,<sup>619</sup> ILO, Inter-American Development Bank, IPUMS,<sup>8</sup> SINTEF,<sup>9</sup> UNDESA and WHO.*

**Figure 245. Number of countries that collected data on persons with disabilities in their censuses, and those that included the Washington Group short set of questions (WGSS), in 2005-2014 and in 2015-2022.**



*Source: DDI Collective (2024),<sup>620</sup> ECLAC,<sup>13</sup> ESCWA, IPUMS,<sup>8</sup> Mitra and Yap (2022)<sup>624</sup> and UNDESA.*

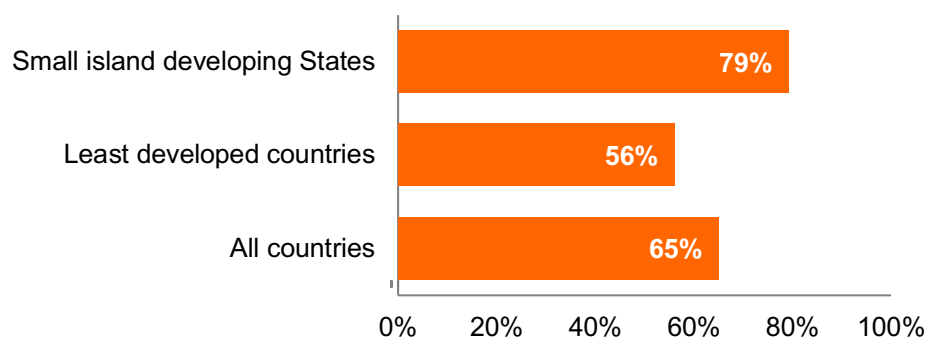
A variety of different methodologies is in place to collect data on persons with disabilities. Different questions are asked depending on the country, and within the same country, these questions may also differ across censuses, surveys and other data collection efforts. These differences prevent the comparison of data from country to country and within the same country.

**Table 9. Tools developed to produce internationally comparable data on persons with disabilities, including data disaggregated by disability.**

Use	Tool	Developed by
Population-based household survey on persons with disabilities	Model Disability Survey	World Health Organization
	Surveys on the living conditions of persons with disabilities	SINTEF
To integrate into an existing survey/census to disaggregate data by disability	Short set on functioning (WGSS)	Washington Group on Disability Statistics
	Functioning and Disability Disaggregation Tool (11 questions)	World Health Organization
	Short set on functioning – enhanced (12 questions)	Washington Group on Disability Statistics
	Extended set on functioning (37 questions)	Washington Group on Disability Statistics
In labour force surveys	Labour force survey module on disability	ILO in collaboration with the Washington Group on Disability Statistics
To compile information on children/youth with disabilities	Child Functioning Module	UNICEF and the Washington Group on Disability Statistics
To measure the impact to women on environmental challenges	Model questionnaire: measuring gender and the environment	UN Women
In demographic and health surveys	Disability module with the WGSS	DHS Program

Since the early 2000s, a number of initiatives have delivered internationally comparable methods (i.e., questions) to obtain disability data (Table 9). Among these methods, the Model Disability Survey has been conducted in 14 countries and the Washington Group short set of questions has been used in multiple countries and in various data collections (Figure 244 and Figure 245). For instance, these questions have been used in 33 countries for censuses in 2005-2014, 21 countries for employment data collections in 2015-2023, 35 countries for MICS, 11 countries for demographic and health surveys (DHS), 11 countries for the SINTEF disability surveys, 4 countries for annual household surveys in Latin America and the Caribbean and 2 countries for the COVID-19 high-frequency phone surveys. In 2005-2014, 45% of censuses that included disability questions used the WGSS. In more recent years, 82% did so but the true percentage for the 2015-2024 census round remains unknown as this census round is not yet finalized (Figure 245). Since 2005, 79% of small island developing States and 56% of least developed countries have used the WGSS in their last census (Figure 246). Moreover, as of January 2023, 54 MICS surveys collected data on children and youth with disabilities using the child functioning model, which also provides internationally comparable data.<sup>621</sup>

**Figure 246. Percentage of countries that used the Washington Group short set, among countries that included disability in their last census, 2005-2022.**



Source: UNDESA.

In addition to their use in censuses and surveys, the tools to produce internationally comparable data have been included in administrative systems, education contexts, program registration systems, disaster risk reduction and other humanitarian contexts, as well as in general program planning by civil society organizations.

From 2018 to 2022, several organizations have organized capacity building activities on disability statistics, including the DHS Program, ILO, SINTEF, UNICEF, UNPRPD, the Washington Group and WHO. These activities include, among others, capacity building to governments. In particular, 59 per cent of the least developed countries and 45 per cent of small island developing States received this support.

Many national online data portals are not accessible for all persons with disabilities because they lack

accessibility features. This follows the trend of online governmental portals (see chapter on Goal 16) – in 2020, only 37% of countries had online governmental portals accessible for persons with disabilities according to W3C guidelines. Awareness of the need to make data accessible to all, including persons with disabilities, has been rising and online portals on internationally recommended methods to collect disability data have increasingly included disability features. For example, the WHO data webpage includes accessibility features, such as alternate text for graphic elements, use of plain language, logical heading structure and large links, buttons and controls. The website of the Washington Group on Disability Statistics, which includes guidelines on internationally comparable methods to collect data on persons with disabilities, includes various accessibility features, such as a colour scheme avoiding colours that do not offer enough contrast for common forms of colour blindness, possibility to navigate the website by keyboard alone, and the website can be used with common assistive technology – these accessibility features were developed in consultation with organizations of persons with disabilities.

Most data visualizations guidelines still focus on persons without disabilities or blind and partially sighted persons, for which data visualisation descriptions are recommended, or persons who are colour blind, for whom the use of colour-independent patterns is recommended. Recently, new research has been emerging on identifying accessible data visualizations for persons with intellectual and development disabilities, but this research remains scarce.<sup>622</sup> In particular, more research on universal designs of data visualizations that are accessible to all, including persons with intellectual and developmental disabilities, is needed.

One of the barriers into using disability data for policy guidance and for the assessment of progress towards the SDGs and the CRPD, is the lack of a centralized online portal with disability data from countries all over the world and for relevant indicators to monitor the SDGs and the CRPD. Since the 1980s, there has been recognition of this lack. Despite several initiatives, such a portal still does not exist. Four online portals focusing on disability data and with a global scope have been produced since the 1990s (Table 10), but they have remained limited in the indicator coverage and use only a small portion of the disability data available worldwide. All except one have been discontinued as of 2023, due to lack of regular and sustainable funding.

Since 2015, more UN entities and other stakeholders have started to compile disability data. As of early 2023, various actors held substantial global and regional disability data compilations, including ECLAC, ESCWA, ESCAP, Fordham University (United States), ILO, Leonard Cheshire (United Kingdom), SINTEF, UNDESA (including UNSD), UNESCO, UNICEF, WHO and the World Policy Analysis Center (United States). Many of these data is not publicly available online.

Progress has been made in the availability of data disaggregated by disability in the United Nations SDG Indicators Database. In 2024, this database contained 7 indicators with country data disaggregated by disability, up from zero in 2018. Three of these indicators have data for more than 3 countries. This progress however falls short of covering the 10 SDG indicators for which the 2030 Agenda explicitly

requires disaggregation by disability (only 2 of these indicators have data for more than 3 countries).<sup>623</sup> Moreover, this also falls short of the general call in the 2030 Agenda for SDG indicators to be disaggregated, where relevant, by sex and disability. Disaggregation by sex is more widely available than disaggregation by disability: 49 indicators have data disaggregated by sex but only 7 have data disaggregated by disability. Only 3 indicators in the database have data disaggregated by both sex and disability.

**Table 10. Examples of disability data portals with global scope and publicly available online.**

<b>Name of portal</b>	<b>Host</b>	<b>Scope</b>	<b>Period of regular updating</b>
DISTAT	UN Statistics Division	Disability prevalence in various countries	1990s
United Nations Disability Statistics Data Portal	UN Statistics Division	Disability prevalence in various countries	2017-2019
Disability Data Portal	Leonard Cheshire	Poverty, social protection, education, employment, empowerment of women and girls, violence – in various countries	2018-2022, discontinued in December 2022
Disability Data Initiative	Fordham University, United States	Poverty, health, education, standard of living – in various countries	Since 2021 and ongoing

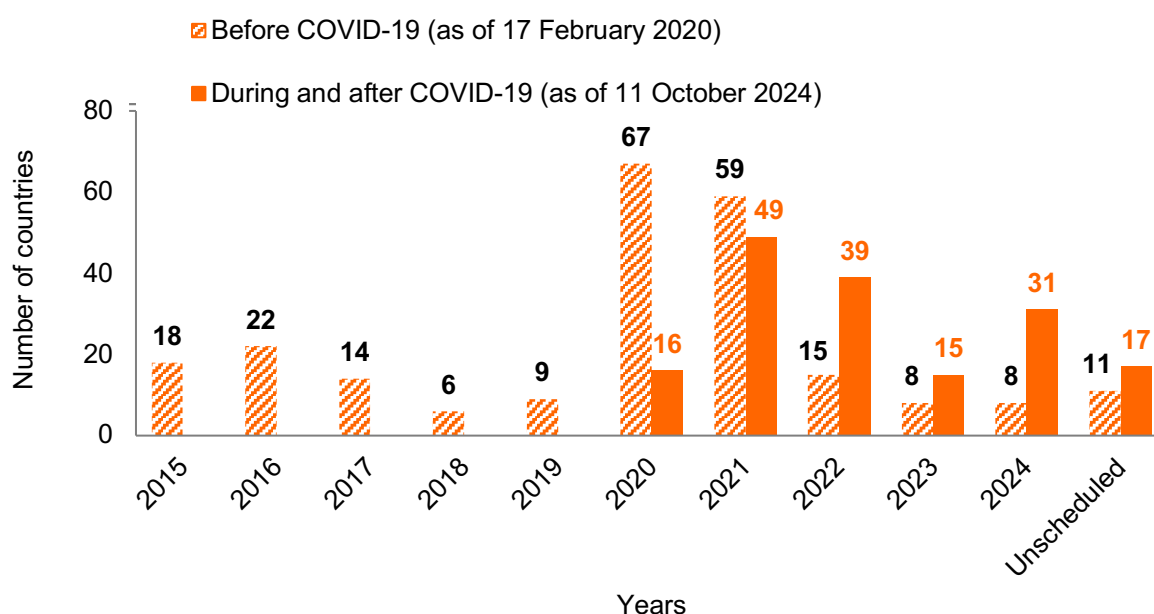
## Impact of the COVID-19 pandemic

The COVID-19 pandemic has disproportionately affected persons with disabilities (see chapter on Goal 3) and yet, few countries collected data on persons with disabilities or disaggregated data by disability at national level since the start of the pandemic. For example, only two countries have disaggregated the national COVID-19 mortality data by disability – UK and South Korea. To monitor the impact of the COVID-19 pandemic, COVID-19 high-frequency phone surveys (HFPS) were conducted in 55 countries, but questions to identify persons with disabilities were only included in 19 of those countries.<sup>624</sup>

Furthermore, the pandemic also impacted the availability of statistics on disability collected through population and housing censuses, which are a principal source for producing statistics on persons with disabilities in

most countries. Countries usually conduct their censuses every ten years. The onset of the COVID-19 pandemic in the middle of the 2020 census round<sup>625</sup> (i.e., years 2015-2024) had a significant and adverse impact on its implementation. National statistical offices or census agencies were challenged to produce timely, accurate and reliable statistics during the pandemic. The pandemic circumstances, with social distancing measures, impacted on the implementation of censuses, particularly in countries conducting their censuses fully or partly with the traditional method, whereby every household in the country is approached with a request for information.

**Figure 247. Number of countries by the year their census was scheduled, before and during/after the COVID-19 pandemic.**



Source: UNSD.

Consequently, the collection and dissemination of data, including on persons with disabilities, were affected, resulting in at least one- or two-year delays (Figure 247). Before the pandemic, 67 countries were planning to conduct the census in 2020 but only 16 of them were able to conduct the census as scheduled. The others had to postpone to later years. As a result, while before the pandemic only 15 countries had planned to conduct their census in 2022, this number increased to 39 countries after the pandemic. Another 15 countries delayed their census to 2023; and 31 countries to 2024.

Census operations also took longer than usual during the pandemic, resulting in further delays. Among the countries that managed to conduct their census in 2020 in the middle of the pandemic and social distancing restrictions, a few of them had to extend the enumeration period for more than six months to

increase response rates and ensure completeness.

Conducting the 2020 round of censuses under the pressure of the COVID-19 pandemic has also raised concerns about the quality of census results. Many people moved to different addresses when schools and workplaces were closed or changed their place of residence to join another household. All these circumstances have created difficulties in counting people in their place of usual residence. In addition, due to constraints on time and resources, some countries had to shorten their census questionnaires, which may have affected disability-related questions and resulted in the loss of time series data and intertemporal comparability.

Compared to previous census rounds, the availability of detailed statistics on persons with disabilities coming from censuses is delayed, and in some countries not yet available at all. As a positive development, the pandemic has been a catalyst for more innovative and agile ways of data collection, like remote or online data collection, with the potential for increasing both the quality and availability of data on persons with disabilities.

## Summary of findings and the way forward

In the context of the 2030 Agenda and the promise to “leave no one behind”, substantial efforts have been made to generate data and information to monitor the situation of persons with disabilities. An increasing number of countries is collecting data on persons with disabilities, and using established internationally comparable methods to do so, ensuring progress towards the achievement of target 17.18. Since 2015, 42 countries have used the Washington Group questions out of 51 countries collecting disability data in censuses and 14 countries have conducted Model Disability Surveys. However, capacity to use internationally recommended methods is still lacking in many countries, particularly in least developed countries. To achieve target 17.18, it is crucial to direct more capacity building efforts towards countries that need them the most.

The onset of the COVID-19 pandemic resulted in less data on disability being available than expected, due to disrupted data collections, particularly censuses and surveys. Moreover, although rapid emergency data collections were conducted in some countries during the pandemic to understand its impact and guide policy formulation, those data collections rarely compiled data disaggregated by disability status.

Only a minority of developing countries has comparable data across time that would allow to track progress towards the realization of the Sustainable Development Goals for persons with disabilities. The lack of standardized methods along time prevents measuring this progress for many topics covered by the SDGs.

Accessibility features are still lacking in many data disseminations. And the lack of a centralized, accessible, publicly available and global online platform for data on persons with disabilities causes

barriers to a sustainable regular monitoring of progress for persons with disabilities towards the SDGs and the realization of the CRPD.

The availability of data disaggregated by disability in the UN SDG Indicators Database has increased since 2018, but progress has been too slow. With current trends less than half of the indicators for which the 2030 Agenda explicitly requires disability disaggregation will have data by 2030. The rates of progress will need to be 4 times faster in order to achieve, by 2030, availability of data disaggregated by disability for these 10 indicators. To achieve a level comparable to the current availability of gender disaggregated data, rates of progress will need to increase 6-fold.

To increase the availability of relevant and high-quality data on persons with disabilities, the following actions are recommended:

**1. Integrate and harmonize disability data collections in all relevant national information systems.**

Integration of disability in the national information systems implies collecting and disaggregating population data by disability as well as collecting data on persons with disabilities in relevant national information systems -- for instance, for national health information systems, to collect health facilities-based data disaggregated by disability; similarly for education information systems, collect data on disability across educational facilities.

**2. Encourage the use of internationally comparable methods.** The most effective way of understanding disability is to use valid and reliable tools assessing functioning difficulties in undertaking specific activities like walking, seeing, or hearing as well as barriers in the environment that may contribute to those limitations. The selection of a specific tool will depend on the resources that countries have, their objectives and specific contexts. Statistical methods to harmonize data from different functioning tools already exist for comparability and countries should be encouraged to use them, including the newest revision of the United Nations Principles and Recommendations for Population and Housing Censuses.

**3. Establish regular and standardized data collections along time.** Data collected with the same methods in different time periods are essential to measure progress. While many countries currently have only one point-in-time data on persons with disabilities, population data systems that continuously produce such data are key to effectively inform policy and decision-making. Countries may consider establishing a register of persons with disabilities to produce timely, frequent and accurate data; as well as enhancing the frequency and the quality of disability-related data by using various data collection methods.

**4. Invest in collecting and disseminating data on women and girls with disabilities.** More investments in data collection on women and girls with disabilities is needed. Data disaggregation and collection of individual-level data must be prioritized to ensure that everyone is included in policy formulation and programme design. When such compelling evidence is available, policymakers cannot turn a blind eye. Ignoring such data will leave women and girls with disabilities behind.



**5. Make all data, in online websites and printed formats, accessible for persons with disabilities.**

Many websites lack accessibility features, like audio versions, captioning of data charts and alternatives to mouse use. Data is an important tool for participation and all persons with disabilities should have access to data in accessible formats.

**6. Build capacity of developing countries, particularly least developed countries and small island developing States.** The use of standardised and internationally comparable methodologies to collect disability data remains particularly low in least developed countries.

**7. Promote partnerships to coordinate for the production of a centralized global, online, publicly available and accessible repository on data on persons with disabilities.** Previous efforts have been hampered by lack of regular and sustainable funding and lacked coordination among relevant stakeholders. Many actors are involved in the production of data on persons with disabilities covering the scope of the CRPD and the SDGs, and they should all be engaged in this effort.

**8. Involve persons with disabilities and their representative organizations in all stages of data production, from planning to dissemination, and data utilization, especially in census planning and operations.** It is key to involve a diversity of persons with disabilities, including persons with various types disabilities and gender, and their representative organizations to ensure that data is fit for purpose and accessible to all.

**9. Increase the number of indicators with data disaggregated by disability in the UN SDG indicator database.** Data disaggregated by disability has increased substantially in the past five years, but this has only partially been reflected in the UN SDG Indicator database. Making these data available in the SDG indicators database will provide a solid evidence base to inform on the progress towards the SDGs for persons with disabilities.

**10. Invest in research to identify the best visualizations for data accessibility for persons with disabilities, including for persons with intellectual and developmental disabilities, focusing on universal design visualizations accessible to all.** With the proliferation of data-driven reasoning and decision-making increasing across all aspects of life, making data accessible to all is crucial. Without data accessibility, many persons with disabilities will need to rely on others to relay relevant information and to make decisions using that data and not be able to access and use the data independently.