Assistive Technology

The Official Journal of RESNA

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/uaty20

Social protection and access to assistive technology in low- and middle-income countries

Alexandre Cote

To cite this article: Alexandre Cote (2021) Social protection and access to assistive technology in low- and middle-income countries, Assistive Technology, 33:sup1, S102-S108, DOI: 10.1080/10400435.2021.1994052

To link to this article: https://doi.org/10.1080/10400435.2021.1994052

Published online: 24 Dec 2021.

ASSITIVE TECHNOLOGY
2021, VOL. 33, NO. S1, S102–S108
https://doi.org/10.1080/10400435.2021.1994052

Taylor & Francis
Taylor & Francis Group

Social protection and access to assistive technology in low- and middle-income countries

Alexandre Cote, Msc

Law, Economy and Management UNICEF, New York, USA

ABSTRACT

To overcome widespread barriers and lack of support, persons with disabilities face significant disability-related costs, including assistive technology (AT), that drive them to or maintain them in poverty and undermine their socio-economic participation. In many countries, social protection systems are a gateway to accessing assistive devices either through health insurance, integration in Universal Health Coverage (UHC) packages, subsidies, cash transfers or direct provision. However, the broader issues of access to AT (lack of awareness, information, availability, human resources, etc.) are compounded by barriers to social protection. In low- and middle-income countries globally, less than 20% of persons with significant disabilities, who are likely to need AT, receive disability benefits. This paper reflects on the relation of AT and disability-related costs, the evolution of the role of social protection in line with the CRPD, and the different social protection mechanisms used at the national level to provide access to AT. It further highlights some of the key issues to be tackled by social protection systems to enhance access to AT, with a focus on low- and middle-income countries.

ARTICLE HISTORY
Accepted 11 October 2021

KEYWORDS
assistive technology; disability; inclusion; social protection

Introduction

Globally, persons with disabilities are over-represented among the poor, less likely to work and have worse education and health outcomes than persons without disabilities (World Bank-WHO, 2011; UN DESA, 2018). Those inequalities are magnified for children, women and girls with disabilities, and persons with high support needs.

To overcome widespread barriers and lack of support, persons with disabilities face significant disability-related costs, including costs of assistive technology (AT), that drive them to poverty and undermine their socio-economic participation.

While evidence has shown that AT can make a significant difference in supporting greater autonomy and socio-economic participation over the life cycle (AT2 scale, 2020), many persons with disabilities cannot afford it (Borg & Ostergren, 2014), especially those with higher support needs (Pryor et al., 2018). They are missing out on education, work opportunities and higher income that AT may have allowed. Alternatively, people might opt for low quality devices, which could ultimately be detrimental to their health and functioning (Hanass-Hancock et al., 2017a). Moreover, even if they can originally afford adequate AT, they may not have the resources to maintain it in good condition.

Framed by the United Nations Convention on the Rights of Persons with Disabilities (CRPD) and the *no one left behind* focus of the Sustainable Development Goals (SDGs), a growing consensus has emerged that social protection has a critical role to play in supporting the inclusion of persons with disabilities across the life cycle by providing basic income security, coverage of health care and disability-related costs, including AT, as well as facilitating access to education and employment (UN,2015; ILO,2017;UN DESA, 2017; ILO,2019a). In line with the definition developed as part of Interagency Social Protection Assessments, social protection as used in this article refers "to the set of policies and programs aimed at preventing or protecting all people against poverty, vulnerability, and social exclusion throughout their lifecycles, with a particular emphasis towards vulnerable groups." It includes social health protection measures that aim at "ensuring that persons in need will not face hardship and an increased risk of poverty due to the financial consequences of accessing essential health care" (ILO, 2008).

In many countries, social protection systems are a gateway to accessing assistive devices either through health insurance, integration in Universal Health Coverage (UHC) packages, subsidies, cash transfers or direct provision. However, the broader issues of access to AT (lack of awareness, information, availability, human resources, etc.) compound barriers to social protection. Globally, however, only 33.5% of persons with significant disabilities (less than 10% in low income countries), many of whom are likely to need assistive technology, receive disability benefits (ILO, 2021).

While many countries have initiated programs or reforms of their social protection systems to provide more support to persons with disabilities and their families, challenges remain with regards to, among others, design, eligibility determination, value or delivery mechanisms (Banks et al., 2018a, 2018b; Kidd et al., 2018; Kidd & Kabare, 2019; Hanass-Hancock, 2017), all of which impact access to AT.

CONTACT Alexandre Cote acote@unicef.org 360 1st Avenue, New York 10010, USA.

This manuscript has been republished with minor changes which do not affect the academic content.

This paper reflects on the relationship between AT and disability-related costs, the evolution of the role of social protection in line with the CRPD, and the different mechanisms used at national levels to provide access to AT. It highlights key issues to be tackled by social protection systems to enhance access to AT, with a focus on low- and middle-income countries (LMICs).

Disability-related costs and AT

Persons with disabilities face a multitude of disability-related costs. These come in the form of both disability specific items such as AT, personal assistants, sign language interpreters, as well as higher costs of common goods and services, such as higher utility consumption and the use of taxis due to inaccessible public transport. Recent studies have shown that households with persons with disabilities require more income (in between 12% and 40% in average depending of studies and countries) to obtain the same standard of living as similar households without a member with a disability (Mitra et al., 2017). However, those studies focus mostly on assets as proxy for measurement of standard of living. When assessing the cost of goods and services that persons with disabilities would require to achieve equal participation, but can not necessarily afford, it can reach several times the minimum wage or poverty line (Mont & Cote, 2020).

In addition, due to barriers to education and work experienced by persons with disability, they tend to earn less income; often family members face opportunity costs as they must also forego education and work to provide the needed assistance. Consequently, households with children with a disability or persons with a significant disability have much lower earnings (Hanass-Hancock & McKenzie, 2017b) compared to those without disabilities, while facing higher costs to achieve the similar standards of living and participation. This explains their over representation in the poorer segment of the population.

Disability-related costs incurred by an individual with disabilities and their household vary depending on the level of functioning and support needs of the person, the barriers in their environment, the level of participation they seek, and the availability of government support. The more a person seeks socio-economic participation, the more costs they may face as they will require more support to overcome barriers.

While AT represents a lower share of disability-related costs of goods and services required for basic participation than human assistance (Disability Resource Center, 2008), which is the highest cost, it may be critical, especially for persons with severe functional limitation who may need costlier devices (Pryor et al., 2018). Some AT implies a significant initial one-off expenditure that is followed by regular maintenance costs, which are likely to be unaffordable for persons and households with lower disposable income and savings.

The lack of AT lowers individuals' autonomy and increases their need for human assistance (Hanass-Hancock et al., 2017a; MacLachlan et al., 2018) leading to higher opportunity costs, further undermining the economic situation of the persons and their households. In summary, those who most need AT are also those who can afford them the least. This forms a strong rationale for social protection intervention in support to accessing AT.

The evolving role of social protection

Historically, the initial rationale for social protection in relation to disability has been to provide income security and replace lost earning capacity with focus on incapacity to work and little attention to the coverage of disability-related costs and support to equal participation and inclusion (ILO, 2019).

The international normative framework has progressively recognized the importance of disability extra costs, including AT. For example, the ILO convention No 130 of 1969 on Medical Care and Sickness Benefits recognizes the importance of covering costs of rehabilitation and assistive devices and the General Comment No. 5 of the Committee on Economic Social and Cultural Rights (UN, 1994) stipulates that states have to ensure that "*support services, including assistive devices*" are available "*for persons with disabilities, to assist them to increase their level of independence in their daily living and to exercise their rights*." The CRPD emphasizes the duty of states to promote and facilitate access to AT (Articles 4, 9, 20, 26) but also reinforces with Article 28 the role of social protection "*to ensure access to appropriate and affordable services, devices and other assistance for disability-related needs*" and to provide assistance to cover "disability-related expenses." However, while many high-income countries have been progressively combining schemes for income security and for coverage of disability-related costs, in most low- and middle-income countries, disability-related social protection schemes often remain poverty targeted and conditioned on the incapacity to work (Côte, 2021).

The CRPD Committee has repeatedly recommended governments cover disability-related costs through social protection, including in reference to AT. For instance, in its recommendation to Cyprus,[1] the committee advised to "*abolish the requirement of user payment for social services and support and partial payment for disability-related expenses and assistive devices, being guided by target 10.2 of the Sustainable Development Goals*"; similarly the committee advised Uganda[2] to "*implement compensation schemes (. . .) to meet disability-related extra expenses incurred, for example, for assistive devices, technologies and personal assistance*," or the Dominican Republic[3] to provide "*support to compensate for additional expenses incurred due to their disability, including subsidies for the purchase of assistive devices, medications and support services, in order to mitigate the impact of such expenditures on deepening poverty*."

[1]CRPD/C/CYP/CO/1
[2]CRPD/C/UGA/CO/1
[3]CRPD/C/DOM/CO/1

To fulfil those obligations to cover disability-related costs in general, and AT costs in particular, countries can use different social protection contributory (health insurance, work accident insurance, etc.) and noncontributory schemes in cash, or in-kind, via concessions, subsidies or direct delivery.

Different social protection mechanisms to cover AT costs

Many high-income countries have relatively comprehensive systems that cover both basic income security and a diversity of disability-related costs, including AT. They often combine different instruments. For instance, in Germany, AT costs can be covered by health insurance, by long-term care insurance or by accident insurance, depending on individuals' situation, whereas in Denmark, AT is provided free of charge by local authorities under tax financed schemes. In Ukraine, an individual can obtain their AT from independent providers after the assessment by the Ministry of Health and referral by the regional social services which pay the providers (Al-Tayar et al., 2019). In Australia, AT costs for people with significant disabilities under 65 years of age are covered by National Disability Insurance Scheme, while for people over 65, they are covered through diverse schemes from the Australian Department of Health (Braithwaite et al., 2018). In Spain, AT costs are covered by the National Health Services which reimburses users, and for certain AT by social services but with an income ceiling for beneficiaries.

While those combinations of approaches ensure a greater access to AT in high income countries, limitations remain as there can exist a cap on the costs covered, with significant out-of-pocket expenses for the individual (Willink et al., 2019), limited access to support due to complex and lengthy administrative procedures, and lower quality of publicly funded assistive devices. In many cases, coverage of AT costs will also require individuals be granted an official disability status, which is often also a challenging process (Waddington & Priestley, 2021).

In low- and middle-income countries, where social protection systems are less mature, coverage and adequacy are very limited and access to assistive devices relies on individuals' out-of-pocket payments, supported by families and often with reliance on charities and NGOs. Governments are the main source of AT in only a few countries (Eide et al., 2019). Theoretically, public funding to provide access to AT could benefit from the two parallel policy processes, among others. On one hand, the expansion of the Universal Health Coverage policies, and on the other hand, the progressive harmonization of the CRPD and national legal frameworks and policies, including social protection. However, while many governments are indeed using a diversity of approaches to improve access to AT, as shown in the examples below, severe limitations remain.

With the extension of Universal Health Coverage policies (ILO, 2021), there has been a greater coverage of persons with disabilities by health insurance, including due to specific subsidies. For instance, in Vietnam, there has been a significant increase in social health insurance coverage of persons with disabilities living in poverty (98% in 2016 compared to less than 34% in 2001). However, few countries have adequately included rehabilitation services and assistive devices in UHC policies or social health insurance schemes (Kuper Banks , 2021; Clinton Health Access Initiative, 2020), and in many countries, there are also ad hoc mechanisms either through local government, the Ministry of Social Affairs, or specific funds.

In Rwanda, which has achieved a comparatively high health care coverage, the government subsidized community-based health insurance scheme called "mutuelle de santé" which covers some access to AT but only spectacles, crutches, orthoses, and prostheses (CHAI, 2020). However, a premium waiver is available only for persons with an official disability status or those categorized as very poor by the "Ubudehe" community-based targeting mechanism for social protection (Kidd & Kabare, 2019). Persons with disabilities can also get ad hoc support to cover AT from the Genocide Survivors' Support and Assistance Fund or the Rwanda Demobilization Commission.

The Philippines has recently adopted the Republic Act 11,228 on health, rehabilitation, and assistive devices which provides automatic and subsidized health insurance - PhilHealth – coverage for all persons with disabilities. This provides access to standard health coverage as well as to specific packages for children, adults and older persons with disabilities including rehabilitation and assistive devices. Those packages are developed progressively and do not yet cover all AT. Persons with disabilities can also apply for ad hoc financial support in acquiring AT from the Philippines Charity Sweepstakes Office and the Department of Social Welfare and Development (Luci-Atienza, 2020; Saley, 2019).

In Indonesia, persons with disabilities who are in the bottom two income quintiles have access to fully subsidized health insurance – Jaminan Kesehatan Nasional – Penerima Bantuan Iuran – which covers a small number of assistive devices, although with limited yearly uptake with 4,028 cases in 2015; 6,196 cases in 2016; and 10,180 cases in 2017 (Larasati et al., 2019). In addition, persons with disabilities can apply for ad hoc support for free assistive devices by requesting a recommendation from local social services to be submitted to the Ministry of Social Affairs.

In Sudan,[4] persons with disabilities can benefit from subsidies from the Ministry of Social Affairs and the Zakat Chamber to cover premiums for the National Health Insurance Fund (NHIF), which covers common health care but little rehabilitation and no assistive devices. The main source of access to AT is the National Assistive Device Authority (NADA), which is responsible for importing and producing AT, mostly mobility devices. There are universal subsidies for AT, and persons with disabilities who still cannot

[4]Information provided by Alradi Abdalla, from Sudan

afford it can apply for ad hoc support from the Zakat Chamber. However, there are issues of geographic coverage of NADA and a lengthy process involved to get the Zakat support.

In Ghana, while persons with disabilities can benefit from a waiver of premiums for the National Health Insurance Scheme under certain conditions, it does not cover assistive devices (NHIS Ghana, NHIS (National Health Insurance Scheme), 2019). However, persons with disabilities can seek ad hoc support for purchasing AT by applying to the Disability Common Fund, an earmarking of 3% of the local government budget dedicated to the empowerment of persons with disabilities, which can finance livelihood project and individual assistance (Edusei et al., 2017).

In India, the main national public mechanism to ensure access to assistive devices is the Assistance to Disabled Persons for Purchase/Fitting of Aids and Appliances (ADIP). Its support is conditioned on the person having a degree of officially assessed disability higher than 40% and different family income thresholds granting access to full or 50% subsidy of the cost of the AT product. Persons with a family income above Rs 20.000 (USD 266) are ineligible. The maximum cost of the device should not be more than Rs.10,000 (137$), up to Rs.12,000 (165$) for students. The government issues a specific list of more expensive eligible devices for which individuals will get a 50% subsidy. There are specific rules for cochlear implants. Many States have local schemes complementing the ADIP scheme. However, coverage remains limited and the national survey form in 2018 showed that only 19.8% of persons with hearing impairments, 8.2% of persons with visual impairment and 13.3% of persons with physical impairment have acquired assistive devices with the support of the government (India Ministry of Statistics and Programme Implementation, 2019).

In Kenya, this role is played by the National Development Fund for Persons with Disabilities (NDFPWD) which covers common AT such as wheelchairs, crutches, hearing aids, and prosthetic arms or legs for persons who have the disability card, but rarely would cover expensive AT such as screen reader software for individual use.

In Georgia, persons with disabilities would get support from the State Program for Social Rehabilitation and Childcare, which covers orthopedic-prosthetics, cochlear implants, wheelchairs, hearing aids, crutches, walking sticks, walking frames. AT represents 3% of all the public disability specific expenditures in 2018 (Europe Foundation, 2019).

The risk of double exclusion

As the diverse examples illustrate, inclusion of AT in UHC policies and schemes remains limited, and AT is often perceived as a disability specific benefit. Even when AT is included in UHC packages, few assistive devices are covered, most expensive ones are excluded, and there may be co-payments that people cannot afford. Additional mechanisms are often ad hoc and require a lengthy application process, with limited resources and coverage. In addition, access to AT through social protection is often conditioned by requirement for official disability status and/or a means test or poverty targeting requirement. On their own, each requirement limits access and may exclude people in needs of support, which is magnified when those requirements are combined. This leads to low support to cover cost of AT, which does not contribute to creating the demand needed to stimulate investment of providers into greater and more diverse offer of AT.

Disability status requirement

A major challenge in high- or low-income countries is the fact that access to AT is often conditioned on holding an official disability status. Indeed, to provide individual disability support, governments need a way to identify persons with disabilities. This is usually done via disability assessment and determination mechanisms. Due to cumbersome processes and associated costs, these mechanisms often can become a barrier for persons with disabilities to accessing support. Well-designed systems, however, have the potential not only to facilitate access to a range of supports, but also to provide critical information to support case management and policy planning, including the development of access to AT.

The UN Committee on the Rights of Persons with Disabilities has consistently recommended that State parties reform their disability assessment and determination mechanisms (Waddington & Priestley, 2021). Recommendations focus on several key elements, including: i) moving from a medical model focused on impairment to a human rights-based model, taking into account support needs and barriers faced by persons with disabilities, ii) ensuring that disability assessment and determination mechanisms are easily accessible everywhere in the country at low or no cost, and iii) avoiding the need of multiple assessment processes to access a diversity of benefits and streamlined procedure to lessen the burden on persons with disabilities.

Many high-income countries have sophisticated multidisciplinary disability assessment and determination mechanisms but some face critical levels of legal claims against initial decisions (Bickenbach et al., 2015). Many LMICs recently developing or reforming disability assessment and determination mechanisms face significant challenges, as they may not have sufficient human resources and administrative capacities to carry out complex assessments and ensure access to all eligible persons, as in Brazil (Wapling & Schjoedt, 2020).

In many LMICs, the reliance on medical assessments also creates a diverse set of issues. First, it is a significant barrier for poorer children and adults with disabilities or those living in remote areas who may not have the resources to access health services or see an accredited doctor. In some countries, such as Zambia, India, or Rwanda (Kidd et al., 2019a), assessment campaigns have been organized with mobile teams of health staff and social workers going into rural and remote areas to do assessments on a given date. While this improves access, it is ad

hoc and people missing out on the campaign might have to wait a long time for another chance. A few countries such as Vietnam (Banks et al, 2018b) or Fiji (Pacific Disability Forum, 2018) have adopted a different approach with a simpler functional and support needs assessment that can be carried out by a community worker or committee, while medical assessment is required only in certain cases.

While easy access is a key issue, it is important that disability assessments collect diverse information not only on impairments and functional limitations but also on met and unmet support needs, including AT and barriers faced by persons with disabilities. Collecting these pieces of information does not necessarily require complex instruments and could provide a wealth of administrative data. With the progress of digitalization, there are some initiatives to set up disability registries based on simple, yet relatively comprehensive assessments carried out at the community level, such as the community-based inclusive development modular tool demonstration project in Laos (Franck et al., 2020) or the development of a National Disability Management Information System by the Rwanda National Council of Persons with Disabilities (National Council of Persons with Disabilities, 2021). Such registry integrated into a broader information system could operate on two levels. First, it could inform social protection systems about support needs, including AT, at the individual level facilitating referral and case management. Second, it could provide aggregate statistics useful for policy planning and budgeting purposes.

Means test and poverty targeting

Considering the fact that the costs of goods and services, including AT, required by children and adults with disabilities to achieve basic participation can easily exceed poverty thresholds and even the minimum wage, poverty targeting or conditioning the disability-related support to incapacity to work, excludes a lot of people who may not be considered poor but who still cannot afford most of those additional costs. Using the South Africa study on disability-related costs (South African Department of Social Development, 2016), it is estimated that for persons with significant support needs only those in the top quintile of income distribution would be able to afford those disability-related costs.

Another issue with poverty targeting of social protection schemes is that most of the time it considers household income rather than the income of an individual with disability (Kidd et al., 2019a). Due to the lack of support services, adults with disabilities often have no other choice than to live in their parents' or siblings' household as they rely exclusively on their family members for assistance. The focus on household income makes no distinction between the overall needs of the household and the disability-related needs of the individual. It does not provide an adequate reflection of the socio-economic situation of the individual with disabilities and may deprive them from accessing the support they need for a more autonomous life. Another key element to consider in delivery of social protection benefits is the autonomy and agency of people with disabilities. When benefits are based on household attributes and are given to heads of households, it can undermine the individual's control over the support received and their ability to make independent decisions (Côte, 2021).

Going beyond incapacity to work and poverty targeting, a small but increasing number of countries acknowledge the impact of disability-related costs and the right of an individual to support by adopting universal disability allowance compatible with work (Thailand, Fiji, Georgia, Namibia, etc.), which provides more flexible support to socio-economic participation (ibid).

Conclusion

While there is globally a greater acknowledgment of the importance of AT for diverse segments of the population across the life cycle, example from both higher- and lower-income countries show that AT is still often narrowly perceived as a disability specific issue. Even when awareness of the importance of AT is there, there is still an overreliance, as for human assistance, on the fact that household should cover AT-related costs. This is reflected in the type of mechanisms and schemes in place to facilitate access to AT which are conditioned on holding a disability status and/or means tests restricting support to few. As for coverage of health insurance premium for persons with disabilities, there may be a reluctance from social health insurance bodies to take on the sole responsibility for covering the cost of assistive technology. However, with the development of UHC policies and evolution of social protection systems guided by the CRPD, a possible transition approach seems to emerge from country practices. Based on nationally defined overall Priority Assistive Products List building on the WHO's global list, this approach combines on the one hand, a progressive inclusion of most common AT products in UHC package so they become accessible to wider diversity of persons irrespective of disability status and on the other hand, the coverage by disability specific social protection schemes of the more expensive or rare AT required by relatively fewer persons with disabilities with high support needs. Such approach could distribute the budgetary costs of AT across ministries and levels of governments, which will be critical with the risk of potential fiscal contraction in the aftermath of COVID 19 and facilitate the required progressive increase of resource allocation to ensure universal access.

However, for such approach to effectively contribute to universal access to AT, persons with disabilities whoever they are and wherever they are should have access to disability assessment and determination mechanism providing the disability status that may be required for costlier AT. Those mechanisms should also gather more information on AT and human assistance support needs and populate disability registries, which would facilitate case management and coordination between schemes, policy planning, and responsiveness in case of major crisis.

Finally, government must acknowledge the extent and impact of direct and indirect disability-related costs on persons with disabilities and their families across the life cycle and the fact that most individuals even those working or living in non-poor families cannot afford the AT and support services they need. Government

should progressively develop universal social protection schemes to cover the disability-related costs, including AT, as a precondition to full and effective participation and inclusion.

Acknowledgments

The author would like to acknowledge the contributions of perspective and information from Daniel Mont, Amba Salelkar, Meenakshi Balasubramanian (India), and Alradi Abdalla (Sudan). The content is the sole responsibility of its author.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This paper has been produced in the frame of the UNICEF-ILO Inclusive Social Protection project funded by the UN Partnership on the Rights of Persons with Disabilities [00115083].

References

Al-Tayar, R., Humbert, T., Di Pietro, L., Guo, A., Zhang, W., Tebbutt, E., & Mishra, S. (2019, August 22–23). A rapid assessment on access to assistive technology in the World Health Organization European region in World Health Organization. In *Global perspectives on assistive technology: Proceedings of the GReAT Consultation 2019, World Health Organization*. Vol. 1, 15.

AT2 scale. (2020). *The case for investing in assistive technology*. Retrieved February 25th, 2021, from https://atscale2030.org/investment-case

Banks, L. M., Walsham, M., Neupane, S., Pradhananga, Y., Maharjan, M., Blanchet, K., & Kuper, H. (2018a). *Disability-inclusive social protection in Nepal: A national overview with a case study from Tanahun district*. International Centre for Evidence in Disability Research Report.

Banks, L. M., Walsham, M., Van Minh, H., Duy Kien, V., Quynh Mai, V., Thu Ngan, T., Bich Phuong, B., Ha Son, D., Bao Ngoc, N., Thi Thuy Duong, D., Blanchet, K., & Kuper, H. (2018b). *Disability-inclusive social protection in Vietnam: A national overview with a case study from Cam Le district*. International Centre for Evidence in Disability Research Report.

Bickenbach, J., Posarac, A., Cieza, A., ., & Kostanjsek, N. (2015). *Assessing disability in working age population: A paradigm shift from impairment and functional limitation to the disability approach*. World Bank Group.

Borg, J., & Ostergren, P.-O. (2014). Users' perspectives on the provision of assistive technologies in Bangladesh: Awareness, providers, costs, and barriers. *Disability and Rehabilitation. Assistive Technology* 10(4), 301–308 July 2015 https://doi.org/10.3109/17483107.2014.974221 .

Braithwaite, J., Westbrook, J., Nguyen, A., Warwick, M., & Boyling, ca. 2018. *Assistive technologies: Regulation and coverage in Australia*. Rapid Review (No. 6). North American Observatory on Health Systems and Policies.

Clinton Health Access Initiative. (2020) *Final report: Assistive technology country capacity assessment in seven African countries using WHO assistive technology assessment-Capacity tool*.

Côte, A. (2021). Disability inclusion and social protection. In *Handbook on social protection systems*. Edward Elgar Publishing 363.

Disability Resource Center. (2008, February). *The cost of disability: Final report prepared for the Ministry of Social Development. New Zealand*.

Edusei, A., Adjei-Domfeh, P., Mprah, W. K., Opoku, M., Badu, E., & Appiah, S. C. (2017). Assessing the impact and uses of the Disability Common Fund among persons with disabilities in Kumasi Metropolis in Ghana. *Review of Disability Studies, an International Journal*, *12*(4), https://rdsjournal.org/index.php/journal/article/view/526 .

Eide, A., Mji, G., & Chiwaula, M. (2019). Need for, access to and quality of assistive technology in low- and middle-income countries in World Health Organization, 2019. *Global Perspectives on Assistive Technology: Proceedings of the GReAT Consultation* 46 https://apps.who.int/iris/bitstream/handle/10665/330371/9789241516853-eng.pdf .

Europe Foundation. (2019). *Making the most of public resources for full inclusion and participation of people with disabilities in Georgia*. http://www.epfound.ge/wp-content/uploads/2019/06/Disability-Report_ENG.pdf

Franck, B., Koolmees, D., & French, S. (2020). Community-based inclusive development: integrating survivors into a broader victim assistance system. *Journal of Conventional Weapons Destruction*, *23*(3), 10 https://commons.lib.jmu.edu/cisr-journal/vol23/iss3/10 .

Hanass-Hancock, J., Nene, S., Deghaye, N., & Pillay, S. (2017a). 'These are not luxuries, it is essential for access to life': Disability related out-of-pocket costs as a driver of economic vulnerability in South Africa. *African Journal of Disability (Online)*, *6*(1), 1–10 doi:10.4102/ajod.v6i0.280.

Hanass-Hancock, J., and McKenzie, T.C. (2017b). People with disabilities and income-related social protection measures in South Africa: Where is the gap? African Journal of Disability (Online), 6, 1–11 doi:10.4102/ajod.v6i0.300.

ILO. (2008). Social health protection: An ILO strategy towards universal access to health care.

ILO. (2017). *World social protection report 2017–19: Universal social protection to achieve the sustainable development goals*. 66–73.

ILO. (2019a (ILO publication)). *Joint statement: Towards inclusive social protection system supporting full and effective participation of persons with disabilities*.

ILO. (2019b). Measuring financing gaps in socialprotection for achieving SDG target 1.3 global estimates and strategiesfor developing countries.

ILO. (2021 (ILO publication)) *World Social Protection report page 145*.

India Ministry of Statistics and Programme Implementation (2019) *Persons with disabilities in India: NSS 76th Round July – December 2018*, p. 58, 60 and 63. refered by Amba Salelkar.

Kidd, S., & Kabare, K. (2019 *Social protection and disability in Rwanda*. Development pathways

Kidd, S., Wapling, L., Athias, D. B., & Tran, A., (2018), *Social protection and disability in South Africa*. Orpington, UK: Development Pathways.

Kidd, S., Wapling, L., Schjoedt, R., Gelders, B., Athias, D. B., & Tran, A., (2019a) *Leave no one behind: Building inclusive social protection systems for persons with disabilities*. Development Pathways.

Kuper, H., & Banks, L. M. (2021). Universal health coverage, social protection and disability: A review. In *Inclusive social protection for the empowerment of persons with disabilities* (Vol. Forthcoming). International Labour Organization, United Nations Children's Fund.

Larasati, D., Huda, K., Cote, A., Rahayu, S. K., & Siyaranamual, M., (2019). *Policy brief: Inclusive social protection for persons with disability in Indonesia*. TNP2K.

Luci-Atienza, C. (2020). DSWD allots P11.1 M for assistive devices for PWDs, seniors in 2021 budget. Manila Bulletin. https://mb.com.ph/2020/09/17/dswd-allots-p11-1-m-for-assistive-devices-for-pwds-seniors-in-2021-budget/

MacLachlan, M., Banes, D., Bell, D., Borg, J., Donnelly, B., Fembek, M., Ghosh, R., Gowran, R. J., Hannay, E., Hiscock, D., & Hoogerwerf, E. J. (2018). Assistive technology policy: A position paper from the first global research, innovation, and education on assistive technology (GREAT) summit. *Disability and Rehabilitation. Assistive Technology*, *13*(5), 454–466. https://doi.org/10.1080/17483107.2018.1468496 .

Mitra, S., Palmer, M., Kim, H., Mont, D., & Groce, N. (2017). Extra costs of living with a disability: A review and agenda for research. *Disability and Health Journal*, *10*(4), 475–484. https://doi.org/10.1016/j.dhjo.2017.04.007

Mont, D., & Cote, A. (2020). *Considering disability related extra costs in social protection working paper UNPRPD and Leonard Cheshire*https://www.social-protection.org/gimi/RessourcePDF.action?id=56925 .

National Council of Persons with Disabilities. (2021). *Disability Management Information System DMIS - Newsletter 1*.

National Health Insurance Scheme. 2019; *Government of Ghana. National Health Insurance Scheme: Benefit package*. http://www.nhis.gov.gh/benefits.aspx. Accessed September, 20 2021.

Pacific Disability Forum. (2018). *From recognition to realisation of rights. Furthering Partnership for an Inclusive Pacific. 2030*, 18. https://www.internationaldisabilityalliance.org/sites/default/files/pdf_sdg.crpd_report_.pdf

Pryor, W., Nguyen, L., Islam, Q. N., Jalal, F. A., & Marella, M. (2018). Unmet needs and use of assistive products in two districts of Bangladesh: Findings from a household survey. *International Journal of Environmental Research and Public Health*, *15*(12), 2901. https://doi.org/10.3390/ijerph15122901

Saley, J2019. PCSO, PLGU provide free assistive devices to PWDs in Mt. Province (Philippines Information Agency). https://pia.gov.ph/news/articles/1024835

South African Department of Social Development. (2016), *Elements of the financial and economic costs of disability to households in South Africa, Results from a pilot study*. DSD, UNICEF.

UN DESA. (2017). *Promoting social inclusion through social protection*. Report on the World Social Situation (UN DESA publication).

UN DESA. (2018). *UN flagship report on disability and development 2018 – Realizing the SDGs by, for and with persons with disabilities*. UN DESA publication

United Nations. (1994). *General comment No 5, Committee on Economic, Social and Cultural Rights "on persons with disabilities*.

United Nations. (2015). *Report of the Special Rapporteur on the rights of persons with disabilities – Social protection (A/70/297)*.

Waddington, L., & Priestley, M. (2021). A human rights approach to disability assessment. *Journal of International and Comparative Social Policy*, *37*(1), 1–15. https://doi.org/10.1017/ics.2020.21

Wapling, L., & Schjoedt, R., (2020). *Social protection and disability in Brazil*. Development Pathways. 46–47.

Willink, A., Davis, K., Mulcahy, J., Wolff, J. L., & Kasper, J. (2019). The financial hardship faced by older Americans needing long-term services and supports. *Issue Brief of Commonwealth Fund*, *2019*, 1–12 https://www.commonwealthfund.org/sites/default/files/2019-01/Willink_financial_hardship_older_americans_LTSS_ib_0.pdf .

World Bank. (2011) World report on disability.