Domestic Financing for Assistive Technology

Technical report for strengthening access to affordable quality products and services

ATscale
GLOBAL PARTNERSHIP FOR ASSISTIVE TECHNOLOGY

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Contents

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List of figures

Abbreviations

APL	Priority Assistive Products List
AT	Assistive technology
HICs	High-income countries
ICRC	International Committee of the Red Cross
LMICs	Low- and middle-income countries
GDP	Gross domestic product
NGO	Non-governmental organization
OECD	Organisation for Economic Co-operation and Development
OOP	Out-of-pocket payment
UHC	Universal health coverage
WHO	World Health Organization

Glossary of selected terms

Assistive product

Any physical or digital device external to the human body, such as wheelchairs, hearing aids, prostheses, spectacles or digital devices, whose primary purpose is to maintain or improve an individual's functioning and independence, and thereby promote their well-being.

Assistive technology

Assistive technology is an umbrella term for the combination of assistive products and the systems and services needed to ensure safe assessment, distribution and use of these products. See further in focus area #1.

Benefits package

A set of interventions (services and products) that is financed on behalf of a beneficiary population so those people have access for free or with a co-payment.

Co-payment

A fixed amount a person pays at the point of service or at collection of a product, with the remainder covered by a purchaser.

Development partners	Organizations that operate independently from a government and have humanitarian or development objectives. These include international and national non-governmental organizations, bilateral and multilateral agencies, private foundations, charitable organizations and faith-based organizations, among others.
Domestic financing	All public and private financial resources generated and spent within the country. These resources are the focus of this report as they are essential to a country's financial sustainability and progress toward universal health coverage.
Expenditure	Financial outlay by an agent, such as a government, donor or individual, for services and products during a certain period.
Financial protection	The ability of a (health or social) system to ensure people can obtain (health or social) services without forgoing other essential needs such as food, housing or education.
Fiscal space	Budgetary room for government spending without jeopardizing broader macroeconomic and fiscal stability.
Incentive	An economic signal that directs individuals or organizations toward a specific behaviour.
Means-testing	A process to determine eligibility for a service, product, subsidy or payment exemption based on the income or assets of an individual or household.
Out-of-pocket payment	Fees paid by individuals or households directly to providers at the time of service or obtaining a product.
Pooling	The accumulation of pre-paid revenues on behalf of a population.
Pre-paid	When financial resources are collected prior to payment for interventions, such as resources in a government or NGO budget.
Purchaser	An entity that transfers pooled funds to providers to pay for interventions (services and products) for a defined population.
Purchasing	Allocation of pooled funds to providers of interventions (services and products).
Revenue collection	Collection of funds from different sources such as taxes, insurance contributions or user fees.

Executive summary

Assistive technology, such as hearing, vision and mobility aids, benefits broad groups of people, including persons with disability, recovering from injury, and ageing people with emerging functional limitations.

Globally,
2.5 billion people
need one or more assistive products

Access to assistive technology and associated services leads to large societal welfare gains, from everyday independence for the individual and supporting family, increasing education and labour force participation, to economic growth and social equity. Through these mechanisms, **every dollar spent on assistive technology yields nine dollars in return**. Yet access to affordable, high-quality assistive technology is far from meeting the needs, especially in low- and middle-income countries. Notably, many people with disabilities are already socio-economically disadvantaged, with implications for their financial access to assistive products.

Challenges in accessing assistive technology

Affordability is the most common challenge to accessing assistive products globally, with 40 per cent responding 'cannot afford' as a barrier to access in the large number of countries surveyed for the WHO-UNICEF Global Report on Assistive Technology in 2021. Meeting the significant need for assistive products and associated services is an ambitious objective requiring sustained, long-term commitment, in particular in low- and middle-income countries, and has been a long neglected area in public health and social development.

The high impact of assistive technology is not recognized enough in public budgets and hence underfunded. The case to increase funding is strong when costs are compared with health and functional benefits, especially when the economic impact through education and labour market participation is included. However, the sector receives fewer financial resources than warranted, possibly because the gains are not understood, or not prioritized over other health areas. This is true on a global scale, and in public budgets of most countries, but its negative impact is most acute for low- and middle-income countries. While there is increasing public sector awareness and acknowledgement of the gap, the funds are still limited, unpredictable, uncoordinated and not adequately prioritized.

Households' direct out-of-pocket payments are the main funding source for assistive technology, leading to the risk that access is based on ability to pay instead of need. Direct payment by the user is common worldwide, but many more people in low- and middle-income countries experience difficulties in access because of this challenge. Heavy dependency on out-of-pocket payments means that only people with sufficient financial resources can access assistive technology, not necessarily those with the greatest needs. Moreover, there is a higher risk of financial burden on the individual and family, particularly in cases where the assistive products and services are costly and required for a longer period of time. Limiting dependency on out-of-pocket payments is a social imperative because of the financial barriers to access and financial hardship they cause. It is also important to ensure that funds are allocated to where they have the most impact.

Large fragmentation in both financing and provision of assistive technology, and unclear priorities by public funding bodies, contribute to inefficient use of resources. Of the 70 countries surveyed in the WHO-UNICEF Global Report on Assistive Technology in 2021, half had assistive technology funds allocated across three or more ministries, and often local budgets add to the complexity. While non-governmental sources of funds also exist in the assistive technology sector, the funds are often limited, unpredictable in the long run, and may not be aligned with national priorities.

The role of domestic financing strategy is to meet the domestic assistive technology needs by pulling the following two critical levers: (i) expanding resource levels available for assistive technology and (ii) utilizing the available resources more effectively. A well-designed domestic financing strategy has the benefits of directly targeting funding gaps, aligning public sector responsibilities, improving inter-ministerial coordination, and incentivizing non-government sector's sources of funds to align with national interests.

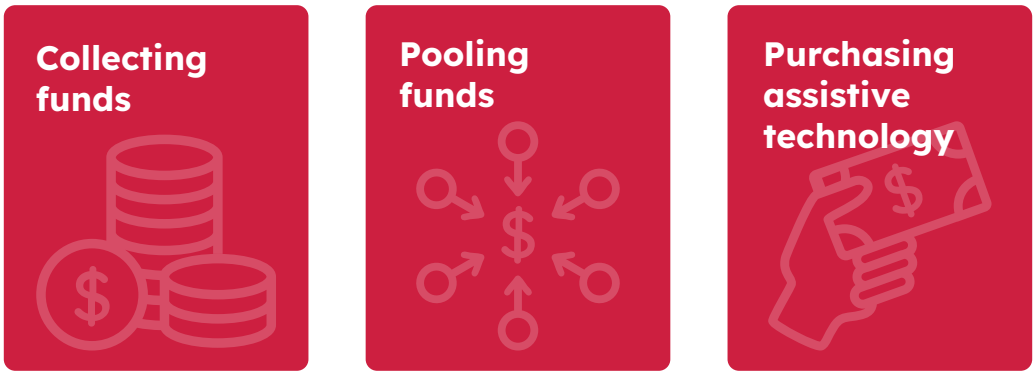
Purpose of the report

This report guides national policymakers to enhance access to affordable quality assistive technology. The focus is domestic financing, which is required to build resilience and sustainability in meeting the population's needs, whether or not this is complemented by external resources. Furthermore, the report guides policy development for non-governmental development partners and global institutional stakeholders. The report presents concrete policy tools and country examples of designing a domestic financing strategy to achieve defined objectives.

A functional framework for domestic financing strategy

The primary objective of a domestic financing strategy is to improve access to affordable quality assistive products and services for the entire population. While the specific objectives of a national strategy must be defined by key stakeholders, additional objectives include strengthened (i) needs-based distribution of assistive technology, (ii) financial protection for households in need of assistive technology, and (iii) efficient use of resources in assistive technology provision. It must also be understood that allocating financial resources involve choices, and different national stakeholders will have diverse perspectives on the expected outcome of such a strategy.

A functional framework to domestic financing strategy for assistive technology is proposed, to comprehensively describe financing principles and assess policy options in the assistive technology sector. This includes the following three pillars representing the flow of funds:



- **Collecting funds** for assistive technology primarily focused on the public sector, noting the criticality of other development partner resources.
- **Pooling funds** for assistive technology across population groups and utilization purposes for distribution based on need and efficiency.
- **Purchasing assistive technology** for the best possible impact in the use of these financial resources, including defining which assistive products and services should be funded, for whom, how to pay for these, and at what prices and volumes.

Key recommendations

Develop a domestic financing strategy for assistive technology with clear objectives, in collaboration with key national stakeholders. National governments should clearly recognize functional ability as a health objective and increase public funding for assistive technology to cover defined essential needs. The specific objectives must be clearly aligned with the population needs and strategic priorities of the national government. The national government has a role in leading such an exercise, in close collaboration with relevant ministries, technical experts, organizations of persons with disabilities, and representation of all populations in need.

Determine a goal for an adequate level of public funding for assistive technology, and develop policies to allocate these resources. In the national context, the determined level of funding must relate to how much societal resources are available, the relative priority to other social needs, as well as prioritization among different AT domains. While no global benchmarks exist, a country can benchmark national budget contributions to assistive technology, for example with other countries that have a similar gross domestic product (GDP) level per capita. While there are several approaches for expanding public funds available to assistive technology, key approaches are building a strong case for assistive technology demonstrating social and economic outcomes, establishing dedicated budget lines, and finding complementary revenue sources such as health or sin taxes for AT-related programmes.

Pool funds for assistive technology across line-ministries and levels of government to increase efficiency and to meet critical needs. Pooling funds for common purposes and reducing fragmentation in financing arrangements can save administrative costs, drive down product prices and better enable needs-based allocation of assistive products and services. In the AT sector, resource-pooling mechanisms have large potential, both within public entities and across public and private sector entities.

Use the domestic financing strategy to limit negative effects of household out-of-pocket payments for assistive technology. For example, by limiting user payments to assistive technology that are low-cost and have a short time-frame of use, allowing for exemptions for vulnerable users, and using alternative mechanisms that support restructured or deferred payments such as micro-lending.

Incentivize and guide development partner funds towards national assistive technology priorities to ensure optimal impact and efficiency. Development partner funds cover a small part of the total fiscal requirement but can be targeted effectively to well-identified needs. When public policy is focused and transparent, non-government stakeholders can identify and cover gaps more effectively. Some resources can be pooled for common purposes; others can be better coordinated to increase effectiveness. A domestic financing strategy has a strong role to play to crowd-in resources towards assistive technology.

Develop purchasing strategy for assistive technology to prioritize what public funding will cover and the approach to purchasing these products and services. Public funding needs to consider prioritization across three dimensions: (i) population coverage, (ii) assistive products and services coverage, and (iii) cost-sharing with users. A national priority assistive products list can be a critical tool for prioritization, however it must be adapted to available budget resources. Cost-sharing strategies must be carefully developed to suit low- and middle-income country (LMIC) contexts so they limit risks that only those who can afford the payment can benefit from the public funding of assistive technology. For LMICs, often the most effective approach is to simplify cost-sharing by prioritizing the most needed products clearly, and making them accessible at zero co-payment.

Leverage private sector resources to have a multiplying effect on particular assistive technology domains or sectoral needs. A domestic financing strategy can support private sector participation in the sector beyond direct payment for the assistive technology, such as sharing risk in investments and market entry, providing market volume guarantees, supporting entrepreneurship and employment for persons with disabilities through microfinancing, and applying voucher systems where purchasing can be handed over to users, among others. More evidence on the relative efficacy of different models of private-public partnerships in the AT sector is much needed.

Scale-up opportunities in digital assistive products and services that can lower cost and other access barriers. While development and deployment of digital AT are often expensive, and access is often conditional on an expensive enabler such as a mobile phone, sharing investment risk and lowering individual entry cost for low-income users are examples of harnessing benefits while ensuring needs-based utilization of digital innovations.

Increase efforts to generate data and evidence on need and utilization of assistive technology. The sector is characterized by a lack of data and evidence on how well utilization meets the needs and effectiveness of interventions. This is a challenge for effective provision and utilization, but also, financial resource allocation for assistive technology would benefit from more and better data.

Next steps

There is no domestic financing strategy that will fit all countries, rather there is a need for a tailored approach to develop a domestic financing strategy for assistive technology that is deeply rooted in the country's context, needs, resources and ambitions. With well-designed domestic financing strategies aligned with non-governmental partners, collecting funds, pooling and purchasing can become more effective and cross-sectorally coordinated. To make the best possible use of the constrained available financial resources, financing for assistive technology must develop better tools to prioritize, and find payment mechanisms that incentivise suppliers and providers of assistive technology to work towards affordable access.

In doing so, the financing system has to align with the delivery model, so that all aspects along the assistive technology continuum are adequately funded, from prevention of need to maintenance of products. At the same time, countries have an opportunity to leverage upcoming innovations such as pooling public and private resources for common purposes, and harnessing effects of digital development in ways that are affordable for all users. Such policies benefit from public engagement in all phases of the policy cycle.

There is a need for continued research and evidence generation to advance this subject area, with specific focus on providing practical tools and approaches for policy makers and other relevant stakeholders in financing. These can include topics such as benchmarking national budget allocation to assistive technology and monitoring approaches, guidance on pooling of funds for assistive technology, and case studies on effective financing strategies at country and regional levels. As governments increase commitments and focus on access to assistive technology, there is also a need for partners from across the sector and countries to build a community and share ideas and lessons to further advance this field of work. While this report aims to present a starting point, it also hopes to be the trigger for a longer and more collaborative discussion.

1. Introduction

KEY MESSAGES

- Ensuring affordable and quality assistive technology for everybody in need is decisive for individuals to live independently and be active in the community, and increases economic welfare for the entire society through access to education and labour markets, among others.
- Still, meeting the significant need for assistive products and associated services is an ambitious objective requiring sustained, long-term commitment, in particular in low- and middle-income countries, and has been a long neglected area in public health and social development.
- The role of a domestic financing strategy is to meet the domestic assistive technology needs by pulling the following two critical levers: (i) expanding resource levels available for assistive technology and (ii) utilizing the available resources applied through financing mechanisms of a country more effectively.

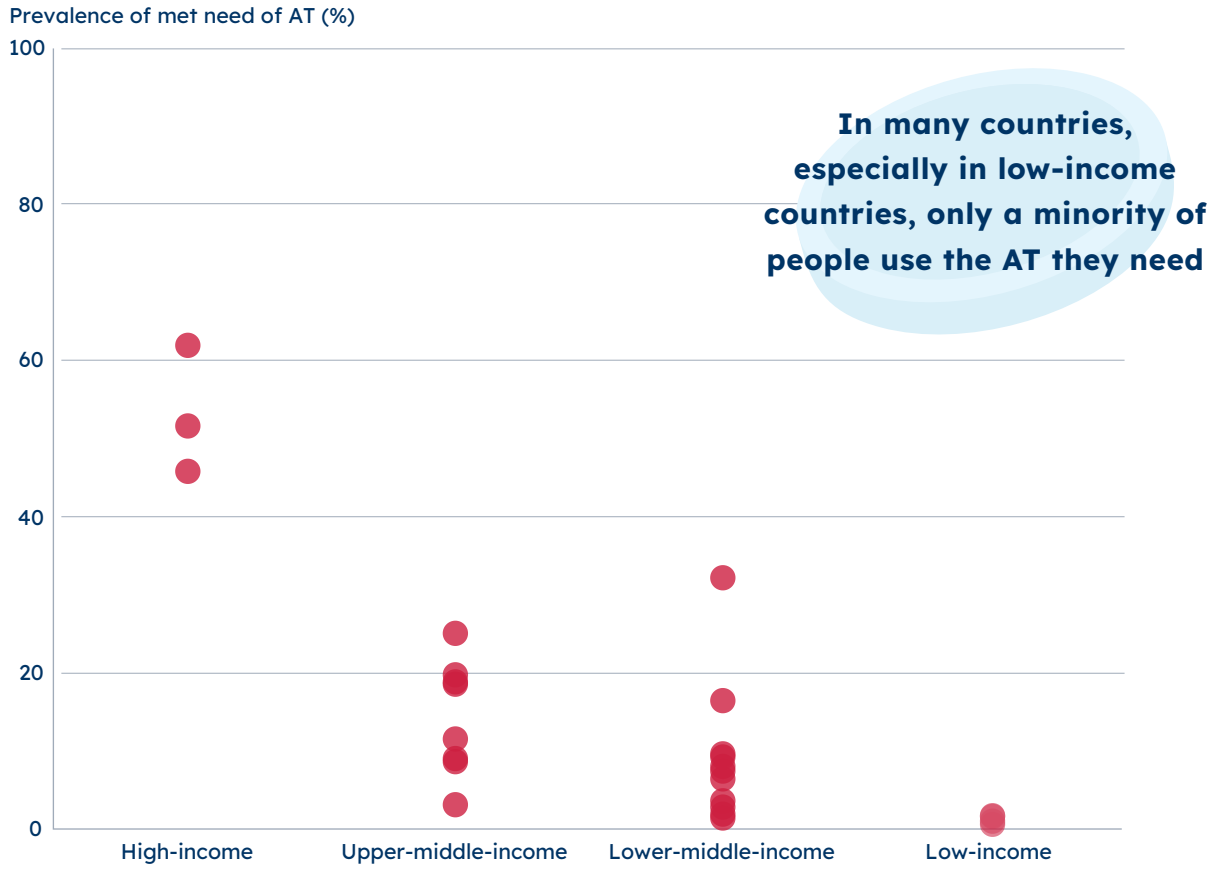
Assistive technology is an umbrella term that encompasses products and associated services supporting and enhancing people in their daily living. These can be wheelchairs, spectacles, prostheses and hearing aids, as well as digital devices and software, and the services that assess and prescribe, fit and train in the use of assistive products. Assistive technology is for persons with disabilities, as well as for people recovering from injury or accident, and ageing people with emerging functional difficulties. Globally, 2.5 billion people need one or more assistive products, an estimate projected to increase to reach 3.5 billion by 2050 with ageing populations and the rising prevalence of noncommunicable diseases (WHO-UNICEF, 2022).

Access to and effective use of assistive technology can be pivotal for the individual, while there are large welfare gains for society, quantified as a return-on-investment of 9:1. For the individual user, assistive technology can alleviate or mitigate functional disabilities in everyday life, and increase participation and excellence in educational and professional life. For families and communities, assistive technology means lower needs for informal and formal care and support, for example supporting older adults living independently at home. From a societal perspective, effective assistive technology accessible to all in need creates welfare gains for the

economy and brings society closer to its full potential. Generally, the return on investment for common assistive products like hearing aids, prostheses, spectacles and wheelchairs is 9 to 1, meaning that for every dollar spent, the societal value generated is nine dollars (ATscale, 2020).

Yet access to assistive technology is very far from meeting the need globally. While unmet need of assistive technology exists in all countries, the gap to full coverage is much more prevalent in low- and middle-income countries (figure 1). This unmet need for assistive technology also varies significantly within countries, with women and girls and people in rural settings typically having lower access to assistive technology (Borg et al., 2025).

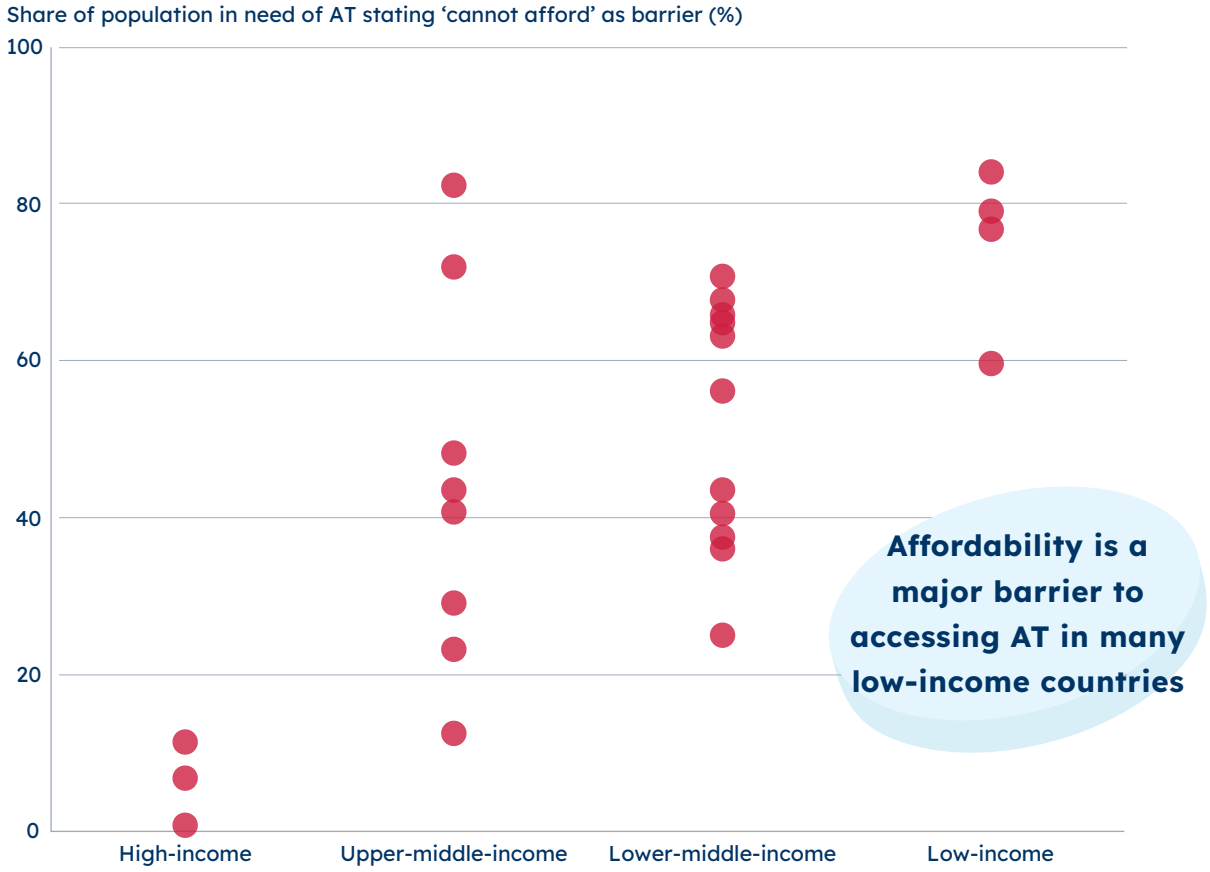
Figure 1. Share of population with access to the assistive technology they need, by country income group



Source: The rapid assistive technology assessment (rATA, www.who.int/tools/ata-toolkit/rata). Each dot represents a country. For a list of the countries and corresponding values, see Global Health Observatory (www.who.int/data/gho/data/themes/assistivetech). Country income groups by World Bank classification: datatopics.worldbank.org/world-development-indicators/the-world-by-income-and-region.html

Financial barriers significantly contribute to the unmet need for assistive technology. Affordability is the most common challenge to access assistive products globally, with 40 per cent responding 'cannot afford' as a barrier to access in the wide group of countries surveyed for the Global Report on Assistive Technology (Eide et al., 2023; WHO-UNICEF, 2022). In most countries, users commonly pay directly to attain their assistive product and related services, and many more people in LMICs experience difficulties caused by these user payments. It must also be noted that these costs are typically not one-off, but recurring for the long term. Variation among countries is large but many high-income countries (HICs) have more effective social protection systems and relatively more people can afford user payments (figure 2).

Figure 2. Share of population in need of assistive technology reporting cost as a barrier to access it, by country income group



Source: The rapid assistive technology assessment (rATA, www.who.int/tools/ata-toolkit/rata). Each dot represents a country. For a list of the countries and corresponding values, see Global Health Observatory (www.who.int/data/gho/data/themes/assistivetech). Country income groups by World Bank classification: datatopics.worldbank.org/world-development-indicators/the-world-by-income-and-region.html

The assistive technology funding currently available is too limited in scale and ambition to sustainably ensure affordable access. The significant unmet need is primarily driven by limited availability and ineffective allocation of domestic public financial resources. In most LMICs, there are also multiple initiatives by development partners[1] to fund and provide assistive technology. Although some initiatives are long-lasting efforts, many remain fragmented and unpredictable in the long term. Moreover, the increasing pressure on domestic fiscal space, which is globally prevalent, risks further shrinking of funding for assistive technology. Strong and sustainable domestic financing policy, with public resources and purposeful regulation and guidance for complementing efforts, is warranted to realize the societal benefits that assistive technology can unlock.

The challenge countries face to ensure affordable and quality assistive technology, accessible to all in need, is increasingly recognized. Assistive technology is a key instrument to reaching the 2030 Agenda for Sustainable Development and several of the Sustainable Development Goals[2]. The right of access to assistive technology is rooted in several international commitments and human rights frameworks. The United Nations Pact for the Future and the Addis Ababa Action Agenda also emphasize the importance of assistive technology in achieving Sustainable Development Goals in an inclusive and equitable manner. The United Nations Convention on the Rights of Persons with Disabilities outlines the general obligation of state parties to conduct research and disseminate information about assistive technology (Article 4), identifies them as tools for mobility and emphasizes the need to address the diverse needs of persons with disabilities (Art. 20), highlights their role in rehabilitation (Art. 26), positions them as a means for enabling participation in public and political life (Art. 29) and encourages international cooperation to enhance access globally (Art. 32). Furthermore, a range of global health frameworks, for example the 2018 World Health Assembly resolution 71.8, emphasize

1. Development partners refer to different types of organizations that operate independently from a government and have humanitarian or development objectives. These can include non-governmental organizations (international and national), bilateral and multilateral agencies, private foundations, charitable organizations, faith-based organizations, among others.

2. In particular #1 (No poverty), #3 (Good Health and Well-being), #4 (Quality Education), #5 (Gender equality), #8 (Decent work and Economic Growth), #9 (Industry, Innovation and Infrastructure), #10 (Reduced Inequalities), #13 (Climate Action) and #17 (Partnerships). (https://atscalepartnership.org/atscale-publications/assistive-technology-and-sdgs)

the need for increasing access to affordable assistive technology, recalling commitments under the United Nations Convention on the Rights of Persons with Disabilities, which includes ensuring access to quality, affordable assistive technology (WHO, 2018a).

Still, financing policy for assistive technology receives relatively little attention in LMICs, beyond the acknowledgement that access or funding is inadequate, and has been a long neglected area of public health and social policy. Policy and funding agendas are often dictated by curative medicine, a focus that tends to marginalize rehabilitation and other interventions that focus on functioning and quality of life (Fuller, 2022). While political will is growing and gradually translating into increased financial commitment and budget lines in select countries, overall progress remains slow and geographically limited. Resilience and sustainability in meeting AT needs depend on robust domestic financing, whether or not this is complemented by external resources (Neill et al., 2024).

1.1. Purpose of the report

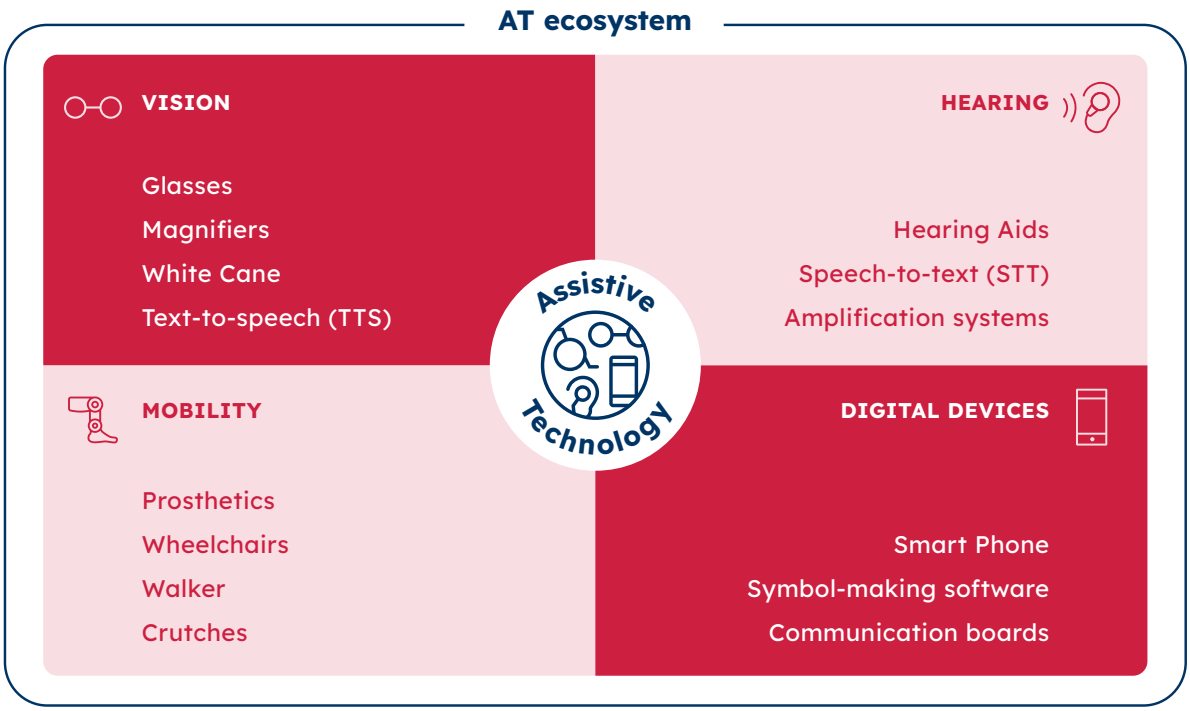
The ability to meet assistive technology needs is driven by two critical levers: (i) resource levels and (ii) effective utilization of available resources through financing mechanisms in a country. This report aims to support countries in developing their financing system for access to affordable assistive technology, especially LMICs, by addressing both these critical levers. Universal health coverage (UHC) with the ambition to cover all in need, includes assistive technology and is a guiding concept for this report, although assistive technology is a concern of several sectors and thereby also of multiple government agencies and line-ministries. This report applies public and health financing principles to the assistive technology sector. A standard health financing framework provides a structured guide and analytical tool for AT financing. Options rooted in evidence and financing practice for enhancing multiple performance aspects are presented and explained. A guiding principle is that all solutions need to be contextually designed, as both performance challenges and prerequisites for policy implementation differ by country and specific assistive technology.

The report targets all stakeholders with an interest in improving access to affordable assistive technology. Importantly, while the target audience for this report is policy makers and related government stakeholders across ministries, this report is also aimed at development partners, which have a crucial role in current AT ecosystems. A dedicated section describes how private financial resources and entities can contribute most effectively. The report is relevant and applicable in all countries, but puts an emphasis on LMICs, as affordability is particularly challenging in these contexts.

FOCUS AREA #1: WHAT IS ASSISTIVE TECHNOLOGY?

Assistive technology is an umbrella term for the combination of assistive products and the systems and services needed to ensure safe assessment, distribution and use of these products. Assistive products such as wheelchairs, hearing aids, prostheses, spectacles or digital devices, means any physical or digital device external to the human body, whose primary purpose is to maintain or improve an individual's functioning and independence, and thereby promote their well-being. Timely access to appropriate, affordable, quality assistive technology can transform people's lives. It allows children to play and learn, adults to work and travel, and older people to join in with family and community life. Assistive technology is critical for advancing inclusion, equity, human rights, universal health coverage and the Sustainable Development Goals.

The prevalence of need and mode of provision for assistive technology varies widely by type of assistive product. For example, the need for spectacles is very common while braille tools are used by few. These products require diverse assessment methods, fitting skills, and vary substantially in cost and accessibility. Assistive products are provided through a wide range of healthcare services, but also by education and social service providers. While some products are highly advanced and require specialists, others can be provided through task-sharing by a range of professional categories, such as community health workers.



Chapter 2 outlines the objectives for domestic financing policy, discusses the main challenges for attainment of these, and explains the functional approach to financing AT. The following chapters 3, 4 and 5 describe each pillar of the functional approach introduced, i.e. collecting funds, pooling resources, and purchasing. **Chapter 3** provides guidance on how to benchmark funding levels for AT, and guides policy on how to collect and allocate more funds for AT. **Chapter 4** explains principles and provides examples of how responsibilities across line-ministries and multiple engagement by development partners can be pooled for more effective use, while local provider and individual user perspectives are kept. **Chapter 5** explains policy choices in prioritization among assistive products and services from a societal resources perspective, and describes mechanisms to pay for these, and how the system can mitigate harmful effects of user payments. **Chapter 6** provides strategies to increase complementarity in different funding streams and outlines opportunities in innovative financing used in assistive technology and other social sectors. Finally, **Chapter 7** describes how more comprehensive data on the need and utilization of assistive technology can support countries in developing effective financing policy.

2. Objectives and framing of domestic financing strategy for assistive technology

KEY MESSAGES

- Affordability of assistive technology for people in need is the main barrier to accessing assistive technology, with 40 per cent responding 'cannot afford' as a barrier to access in the wide group of countries surveyed for the Global Report on Assistive Technology in 2021.
- Assistive technology is heavily reliant on direct household out-of-pocket payments (OOP). The Global Report on Assistive Technology in 2021 estimated that the share of users funding their products themselves ranged from 47 to 95 per cent across countries.
- Of 70 surveyed countries for the Global Report on Assistive Technology in 2021, half of the countries had assistive technology funds allocated across three or more ministries. The limited financial resources for assistive technology are highly fragmented across both public and private stakeholders. This fragmentation limits complete understanding and transparency of funding availability, weakens oversight and accountability, and hampers needs-based allocation of resources.
- The primary objective of a domestic financing strategy is to improve access to affordable quality assistive products and services for the entire population. Additional specific objectives include strengthened (i) needs-based distribution of assistive technology, (ii) financial protection for households in need of assistive technology, and (iii) efficient use of resources in assistive technology provision.
- This report applies a functional framework to describe the flow of financial resources for assistive technology, including (i) collecting funds, (ii) pooling funds, and (iii) purchasing assistive technology, and provides concrete policy tools for improving attainment of defined objectives.

Domestic financing strategy for assistive technology implies identification, design and implementation of the most effective policies to translate societal resources into functional ability for the population. A guiding operational objective of domestic financing strategy is to improve access to affordable and high-quality assistive products and services. To develop purposeful and implementable policies, it is useful to break this ambition down further in a set of specific intermediary objectives. These can be defined in different ways, but generally, in any country, providing access to affordable assistive technology means the system needs to progress towards:

- Needs-based distribution of assistive technology
- Financial protection for households in need of assistive technology
- Efficient use of resources in assistive technology provision

Maximizing the impact of a domestic financing strategy often requires balancing different objectives. In all countries, both government and non-government organizations have limited resources and must strive to achieve the maximum results with available resources. This means financing for assistive technology will always be an exercise in prioritization between different needs, products and services. With multiple objectives often comes a balancing act, such as between increasing access for the many versus protecting the most vulnerable individuals, or raising quality standards versus allowing for lower cost alternatives to minimize financial hardship for households. But a policy can also have a positive effect on more than one objective. For example, a needs-based distribution of assistive technology is more likely to protect households from financial hardship, as functional difficulty and financial vulnerability are often interlinked. In practice, finding the most effective financing policies and mechanisms is contextually dependent.

2.1. AT-specific challenges for domestic financing policy

Many assistive technology challenges are shared with the health and social sectors. Still, assistive technology as a sector carries characteristics that are particularly dominant, including large household direct payments and fragmented responsibility in financing. These characteristics are highly prevalent worldwide (Mishra et al., 2024), but often have more severe consequences in LMICs.

2.1.1. Assistive technology utilization is highly dependent on household payments

Assistive technology is heavily reliant on direct household out-of-pocket payments. Across all country income levels, and particularly in LMICs, utilization of assistive technology is very often funded directly by households themselves. Among the countries surveyed for the Global Report on Assistive Technology, the share of users funding their products themselves ranged from 47 to 95 per cent (WHO-UNICEF, 2022). This share is substantially higher than the share of health expenditure sourced from households (figure 3) and is only comparable to specific health care utilization areas such as prescribed pharmaceuticals in some countries.

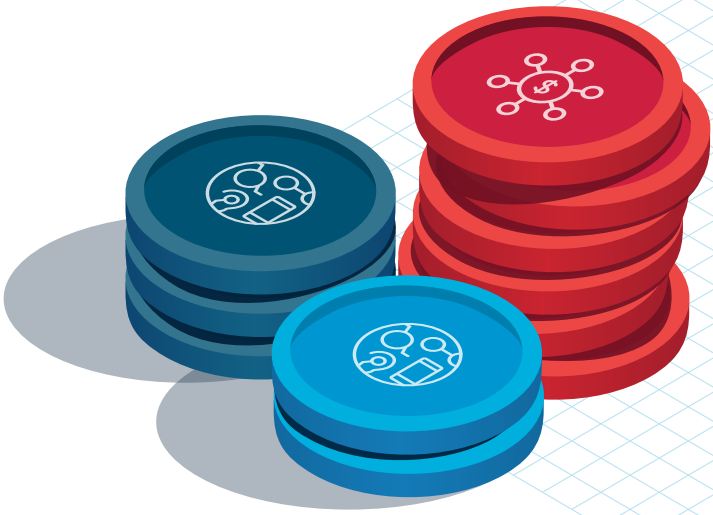
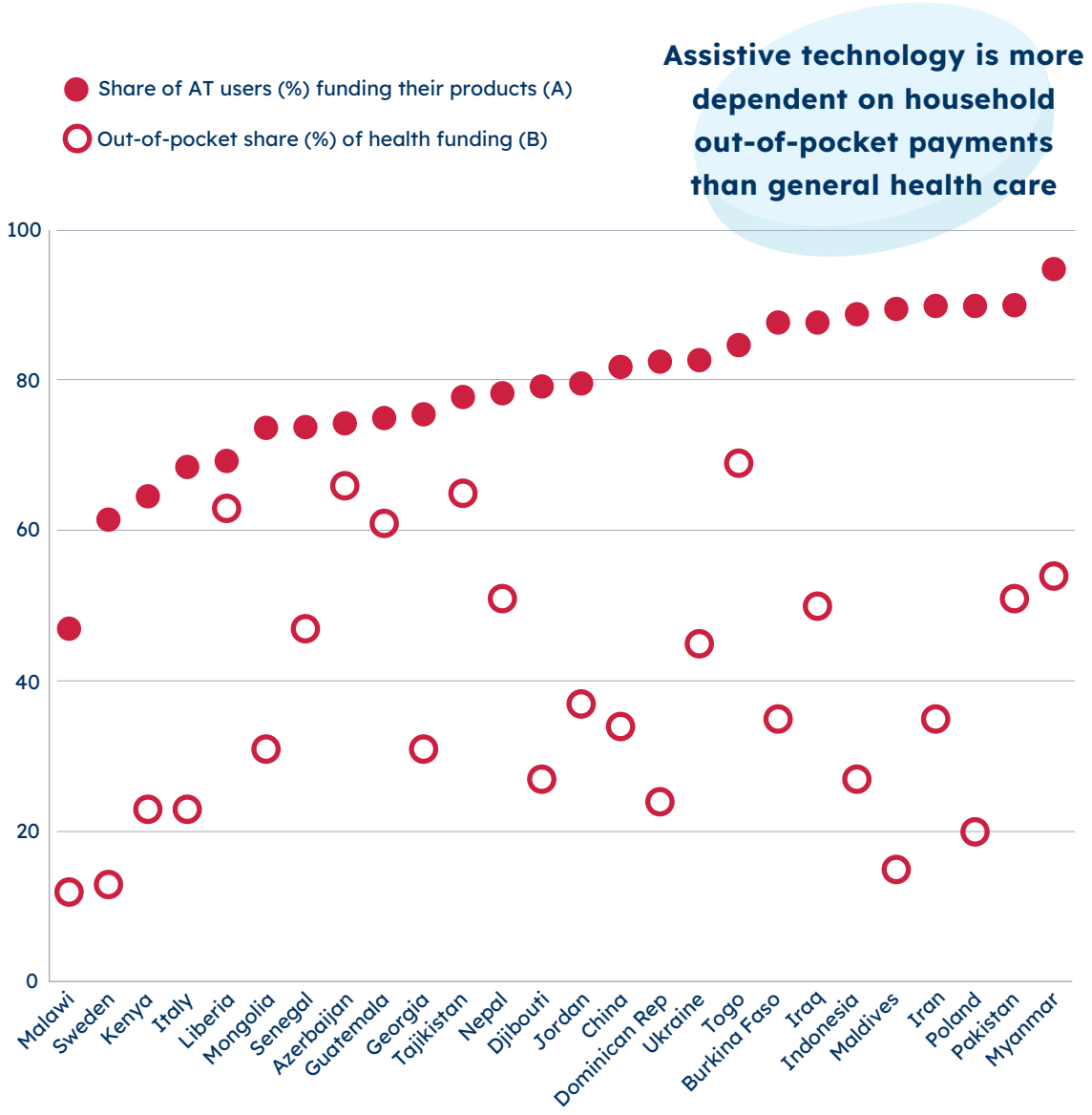


Figure 3. Share of assistive technology users funding their own products vs. out-of-pocket share of health expenditure



Source: (A) The rapid assistive technology assessment (rATA). The percentage combines the two survey responses 'Out-of-pocket' and 'Friends or family', (B) WHO Global Health Expenditure Database (https://apps.who.int/nha/database)

High levels of out-of-pocket payments for using assistive technology cause unmet need, financial hardship for households, and inefficiency, which public policy needs to address. First of all, utilization conditional on the individual's ability to pay creates barriers to access and use. Globally, affordability for the individual is the most common barrier to accessing assistive technology (WHO-UNICEF, 2022). High out-of-pocket payments can also lead to delayed utilization, which may result in worsened outcomes and higher future costs. Those who do manage to fund the needed assistive technology themselves risk financial hardship, i.e. risk to sacrifice other socially critical spending (Ssewanyana & Kasirye, 2020). Additionally, utilization of assistive technology governed primarily by ability to pay instead of need creates and exacerbates inequities. These are problematic from a fairness and human rights perspective as well as from an efficiency perspective. If those who use assistive technology have less relative need for it than those who forfeit use, total societal gains are reduced. While prevalence of financial hardship is highest in LMICs generally, for vulnerable groups it can be significant also in HICs, where, for example, many older adults face severe financial barriers in accessing hearing aids (Jilla et al., 2023).

People in need of assistive technology are already a financially vulnerable group, which exacerbates financial protection challenges. Disability, ageing and chronic conditions are risk factors for lower income and poverty. In most countries, people with disabilities have lower educational attainment and employment rates than their peers. Households with members who have disabilities also own fewer assets and allocate a higher proportion of their spending on general health care (Mitra et al., 2013). These factors mean that when they need assistive technology, the risk of unmet need and financial hardship is higher than for the general population. In addition, in contrast to most health care, assistive technology needs are typically continuous and persistent. For example, an individual who permanently lost their ability to use their legs needs assistive products to support mobility for the rest of their life. Assistive products require maintenance, repairs and replacement. These recurrent expenses exacerbate the financial burden of out-of-pocket payments.

2.1.2. The responsibility for financing assistive technology is highly fragmented

The limited available resources for assistive technology suffer from fragmentation in funding and governance, even more so than the health and social sectors generally. Of 70 surveyed countries in 2021, half of the countries had assistive technology funds allocated across three or more ministries (WHO-UNICEF, 2022). In addition, in most countries decentralized local budgets are also used to fund AT. This fragmentation is intimately linked with the nature of assistive technology as a service. The product and service range covers many different functional needs, which are met by different public administrations. Often, this overlap concerns the same assistive product for an individual user. For example, the need for an assistive product supporting mobility may be identified in school, eligibility for support may be dependent on means-testing by another authority, and fitting and training for the actual product may be provided by the healthcare system. In most countries, health, education and social support are organized in different administrations, answering to different line-ministries. Sub-national authority responsibilities add to the national governance structure. For example, a study identified that **Australia** had 88 government bodies administering 109 funding schemes for assistive technology (Layton et al., 2024).

Fragmented financing arrangements mirror fragmented provider responsibility, which policy can assist to overcome. Decentralization of service provision is needed and most often preferred in assistive technology. In addition, development assistance and NGO funding in LMICs are often necessities. In **Bangladesh**, it is estimated that only 1 per cent of assistive products are provided by the government (Borg & Östergren, 2015). Although not all the remaining is privately funded, a wide and weakly coordinated range of NGOs provide the bulk of assistive technology. This fragmentation in itself may not be the problem to target, but rather a contextual constraint that financing policy must relate to (WHO, 2008). While inter-ministerial and

cross-sectoral efforts to address the challenge can be a strength, the current status in many countries often leads to lack of full clarity and transparency of financing levels, fragmented oversight and accountability, and ineffective coordination. Financing policy can provide part of the solution to overcome these fragmentation challenges, to increase coordination and strengthen cross-sectoral advocacy. (See chapter 4 Pooling funds for assistive technology and chapter 6 Leveraging private funding and provision for assistive technology).

2.2. A domestic financing strategy framework for assistive technology

This report applies a functional framework to describe the flow of financial resources for assistive technology and provides concrete policy tools for attainment of defined objectives. Commonly used in health financing, the framework supports description and development of all mechanisms for financing AT. The three functions are: 1) Collecting funds, 2) Pooling of these financial resources, and 3) Purchasing, i.e. making the best possible use of available resources (figure 4). Financing in all social sectors is about organizing the flow of funds from where resources are created to those with the greatest need, ensuring that the sector's objectives are met (Kutzin, 2001).

The following three chapters demonstrate the application of the three pillars of this functional approach to developing a domestic financing strategy for AT. They also provide concrete policy tools and best practices from different countries to showcase how to improve attainment of the defined objectives.

Figure 4. Functional approach to domestic financing - the flow of funds

Societal resources

Collecting funds

Revenue sources and collection mechanisms for assistive technology. There are three sources of funds for assistive technology. (i) Public funds for assistive technology are collected by means of compulsory contributions, such as taxes and mandatory insurances. (ii) Development partner funds for assistive technology from non-governmental organizations (international and local), bilateral and multilateral agencies, private foundations, charitable organizations, faith-based organizations, etc. (iii) Direct out-of-pocket payments by users and families. Sources and collection mechanisms affect how well the AT system performs.

Pooling funds

Pooling funds for assistive technology is the consolidation of financial resources on behalf of a beneficiary population group or specific purpose. These can be groups defined by geography or a need such as a specific functional ability. How resources are pooled (e.g. by an insurance mechanism, a budget line, or geographic area) influences the system's ability to redistribute resources based on need and efficiency in the use of funds.

Purchasing assistive technology

Purchasing assistive technology is about making the best use of available financial resources. Purchasing policy defines which assistive products and services the resources should be spent on, for whom, by whom, how to pay for these, and the institutional responsibility for these decisions. Purchasing policy creates incentives for suppliers and service providers to contribute towards access to affordable quality AT.

Assistive technology for people in need

Source: Adapted from 'A descriptive framework for country-level analysis of healthcare financing' (Kutzin, 2001)

2.3. Different perspectives on use of financial resources

Stakeholders have different perspectives on what is well spent money and even what is a cost-saving, which shapes how they make choices. Financing policy for assistive technology requires incorporating many sectors and levels of government, as their objectives, costs and benefits are often different. For example, assistive technology as a means to increase labour force participation may lead to a different prioritization compared to if it aims to increase independence in daily living (Cote, 2021). A government budget is an important tool in prioritizing public resources, but it can also lead to undesired priorities if used rigidly. Return on investment in assistive technology comes with societal wealth and tax revenues, but not necessarily savings in the same sector budget or even in the general government budget. Also, proactive investments by one level of government can create fiscal effects by reducing or increasing downstream costs on a different administrative level.

A societal perspective on financing for assistive technology includes valuing impact in several dimensions. Enabling people to live more independently reduces the cost of assistance and saves resources regardless of whether the support is provided by paid workers or by family members in informal care settings. In health, informal care is valued from 0.8 per cent to 4.9 per cent of the economy (WHO, 2024a), levels approaching total spending on health in many countries. The effect comes from individuals both being helped to become economically active and previously informal caregivers being able to take on new tasks. Few of these effects are visible in public budgets or even captured by GDP measurements.

The different perspectives on financial resources means financing is more than a mere technical exercise. While stakeholders with various perspectives on financial resources all subscribe to overall objectives like universal access, they have different limitations and incentives, leading to different views on how financing assistive technology should be organized, including how costs should be shared (figure 5). These differences often also mean that accountability, e.g. vis-à-vis the funding source, looks different across stakeholders.

Figure 5. Different stakeholder perspectives on cost, price, value and financing of assistive technology

Societal values

- Employment opportunity
- Informal work and care giving
- Social participation

Stakeholder	Perspectives
AT user	• Ability to pay • Travel costs • Alternative use of time
Charity/NGO	• Target group or AT priority • Funders' expectation
Manufacturer/Supplier/Provider	• Balance budget/seek profit • Staff interests
Government (at different levels)	• Budget perspective on costs • Labour market impact

Bridging perspectives to find ownership and consensus-based policy across different stakeholders is key to actually transforming financing arrangements. Changing funding flows often meets resistance. A political economy approach can provide methods to map how power is distributed, examine practical constraints that shape norms and decision power (formal and informal), and thereby illuminate the feasibility of policy alternatives. Applied proactively, political economy analysis can identify opportunities for leveraging policy change and supporting reform by increasing understanding about political realities, rather than identifying constraints or 'lack of political will' (Andreas et al., 2022).

3. Collecting funds for assistive technology

Collecting funds

KEY MESSAGES

- Determining what is adequate funding for assistive technology must relate to the amount of societal resources available, the relative priority to other social needs, and prioritization among different AT domains.
- While no global benchmarks exist, a country can benchmark national budget contributions to assistive technology, for example with other countries with similar GDP per capita, percentage of budget expenditure, time-trends, etc.
- Public funding is the most critical source of funds to support needs-based access, and governments need to increase priority to assistive technology. While there are several approaches for expanding public funds available to assistive technology, key steps can include building a strong case demonstrating social and economic outcomes, establishing dedicated budget lines, and finding complementary revenue sources such as health taxes for AT-related programmes.
- Household out-of-pocket payments for assistive technology cannot realistically be completely avoided, but their negative effects can be mitigated through effectively designed domestic financing policy. This includes limiting user payments to assistive technology that are low-cost and have a short time-frame of use, better structuring of AT payment policies, and leveraging alternative mechanisms with restructured or deferred payments such as micro-lending.
- Development partner funds cover a small part of the total need but can be targeted effectively to well-identified needs. Domestic financing policy has a strong role to play to crowd-in resources towards assistive technology through better data on needs and utilization, public funding commitment to national assistive technology programmes, transparency of flow of funds, and potential pooled financing mechanisms.

The assistive technology sector is characterized by a scarcity of resources, as the need in the population is always higher than the available financial resources allow. This is true for all social sectors in all countries, but especially evident in LMICs, where resources are scarcer. In addition, as in the health sector generally, continuous technical advances provide effective new assistive technology, which at the same time increases demands on the ability to fund them (Sorenson et al., 2013). This chapter focuses on the first pillar of the financing framework, collecting funds for AT, guides how to assess the level of available funds (3.1) and describes how different collection mechanisms affect the ability to increase affordable access (3.2).

3.1. Determining adequate funding levels for assistive technology

Ultimately, resource allocation requires balancing the need for assistive technology against available resources in society and other societal priorities. This section proposes indicators for formulating overall targets for AT spending, while recognizing that data on both AT needs and expenditures are sparse.

The magnitude of people's aggregate burden addressed by assistive technology is a reference point for the financial resources needed. A burden of disease perspective can be applied by defining the disability share of the total disease burden broken down by condition (Lopez, 2005; Mishra et al., 2023). Globally the two most prevalent groups of conditions amenable to rehabilitation are musculoskeletal disorders followed by sensory impairments (Cieza et al., 2021). Comparing prevalence and its burden with the corresponding share of all health spending gives an indication of priority relative to other health areas.

Granular data are difficult to obtain for both prevalence and expenditure. Estimates of rehabilitation expenditure are available for most countries, although breakdowns by relevant conditions are rare (see focus area #2). Identifying the most relevant conditions is challenging because standard burden of disease measures such as 'quality-adjusted life years' or 'disability-adjusted life years' focus on mortality and major morbidity and do not capture well the impact of

functional limitations assistive technology addresses, such as vision, hearing and mobility. In addition, assistive technology supports a wide range of functional limitations that may stem from multiple, coexisting health conditions, which makes it difficult to isolate and quantify the attributable burden (Bright et al., 2018).

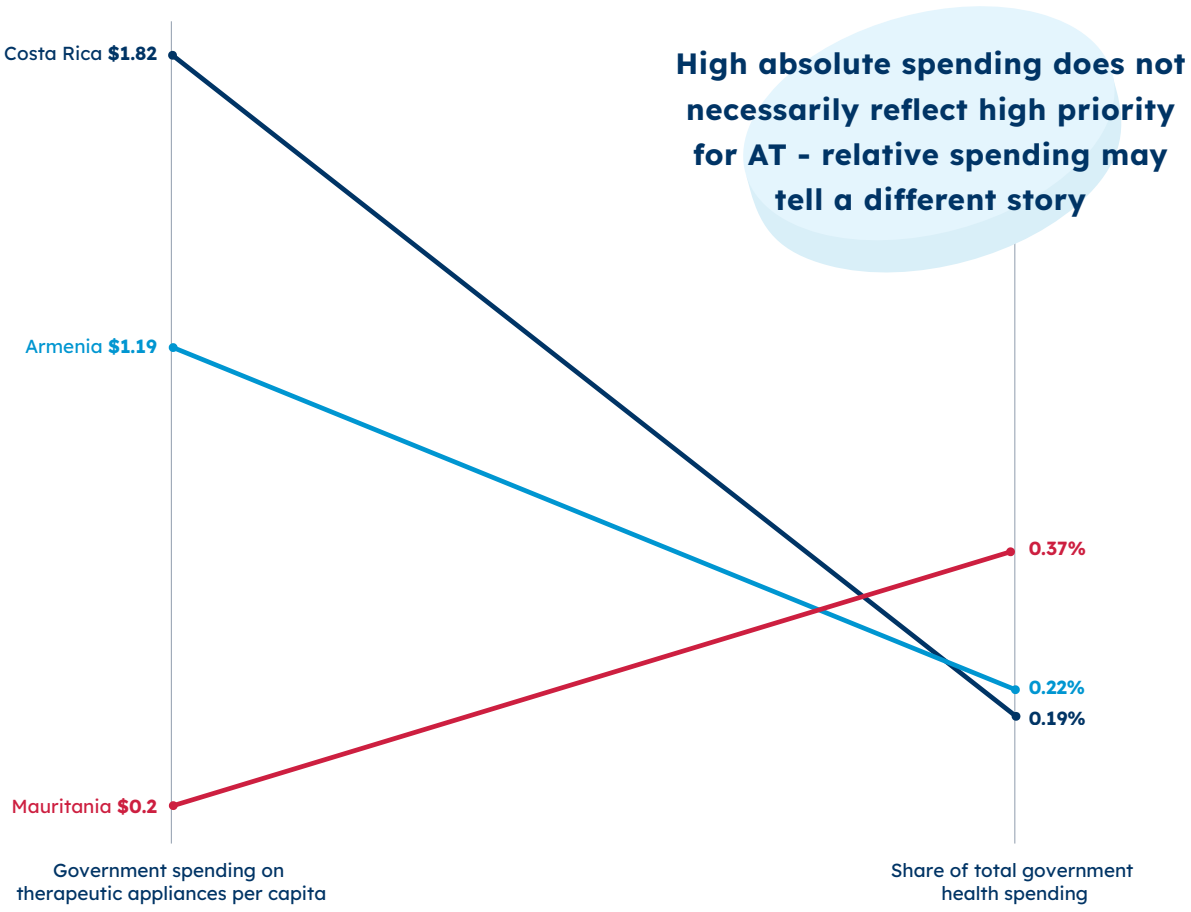
3.1.1. Levels of funding – practical reference points

A purposefully structured set of expenditure indicators is useful for assessment and monitoring. While there are no globally available normative benchmarks about how much is needed to ensure access to affordable quality assistive technology, it is useful to apply a set of purposefully structured indicators. Expenditure on assistive technology can be measured in:

- **Relative measures** (such as a percentage of social spending) - AT expenditure relative to denominators such as total health expenditure, total social sector spending, total public (general government) expenditure, and societal resources such as GDP, gives different relative indicators of priority to assistive technology. The same approach is commonly used to assess priority to health (McIntyre et al., 2017).
- **Absolute measures** (such as USD per capita) - Complementing indicators of relative priority, data on absolute purchasing ability are important to understand available resources. This can use the same approach as estimates of how much is needed to fund defined essential health services (Jowett et al., 2016; Stenberg et al., 2019).

Relative and absolute measures inform different policy questions. Assessing affordability of assistive technology in any country is dependent on whether cost drivers are domestic or global. For AT interventions relying heavily on provider time and expertise, the relative measures are useful, as costs are related to other spending in the same environment, mostly staff costs. In instances when imported products are relatively more dominant, costs are driven by global market prices, including shipping (ATscale, 2025c). Large amounts of local currency can be allocated to a specific assistive technology, but the number of products distributed may still be small if imported goods are very expensive relative to local costs. Figure 6 illustrates the complementarity and difference between absolute and relative spending from three countries, where **Costa Rica** has almost nine times higher absolute public spending per capita on therapeutic appliances than **Mauritania**, but still gives the area much lower priority in its overall government budget.

Figure 6. Illustration of difference in absolute and relative government spending on therapeutic appliances[3]



Source: WHO Global Health Expenditure Database (https://apps.who.int/nha/database)

Both relative and absolute measures are more robust and comparable if based on a defined set of assistive technology. This can be a minimum set of assistive products, which by a normative standard should be available for all in need, such as the WHO Priority Assistive Products List (APL). In countries that have developed a national APL, or nationally applied budget lines for assistive technology, these are practical definitions to work with, although not necessarily comparable with other countries. In some cases, a regional APL can also play a role in referencing or guiding national priorities.

3. Refers to 2023 expenditure in the category HC5.2. Therapeutic appliances and other medical durable goods, which includes assistive products but not services, see functional classification in OECD. (2012). A System of Health Accounts 2011: Revised edition [Online Electronic document].

Both types of measurement need to be applied to context- and policy-relevant comparators. In assessing levels of funding, comparisons will always suffer from differences in data availability and specification of the AT content. Still, approximate comparisons can be used across:

- **Countries with similar levels of societal resources** (such as GDP per capita) or other parameters.
- **Time-trends**, with or without other geographical reference points. For absolute value indicators, adjustment for changes in unit-cost (inflation) is warranted.
- **Separation of volume and price** to understand if spending shifts over time are translated into higher volumes of products and services, or is an effect of changing prices. This necessitates evaluating specific products or services, as volumes and prices change at different pace across them.

FOCUS AREA #2: STANDARDS FOR MEASURING SPENDING ON ASSISTIVE TECHNOLOGY EXIST, BUT DATA COLLECTION IS ABSENT

Global standards are available for defining what should be included in measuring AT spending by both governments and households. The System of Health Accounts, which builds on the national accounting system measuring economic transactions in a country, provides a functional classification to capture the different types of consumption with a health purpose. Rehabilitation and therapeutic appliances are specific categories, but assistive technology is broad and its spending falls into several more categories (OECD, 2017).

In practice, data are very scarce, especially in LMICs. There is neither regularly collected data on how much countries spend on assistive technology, nor comprehensive cost studies, which makes comparisons and assessments of available resources difficult. The large share of household direct payments for privately provided assistive technology makes data collection dependent on survey data, which are not granular enough to capture AT spending. While all assistive products and services in principle are included in the classifications, the small share assistive technology has in total spending also in itself leads to little attention in data collection. In countries where assistive technology is a defined programme in the public budget, or specific assistive products are funded by a national insurance mechanism, these items can be used as a lower benchmark indicator for how much is spent publicly on assistive technology. But these data typically do not encompass the combined spending on products and associated services, and represent a narrow subset of assistive technology.

3.2. Sources and collection mechanisms

The mechanisms for collecting funds for assistive technology affect how much is possible to raise, who in society contributes, and to what extent resources are allocated according to need. This section starts with how the general government budget can be allocated to AT. To this category of public resources also belong other compulsory collection mechanisms, such as labour income-based social health insurance. Beyond government, other sources of funding include development partners' funding and out-of-pocket payments by individuals and families, as defined earlier. Development partners play a role in filling the gaps, but are often not the dominant funder in this sector. As a result, a vast majority of people in need pay out-of-pocket for AT. Evidently, domestic public resources have a stronger potential for sustainable and needs-based allocation than the other sources of funds.

3.2.1. Approaches to collecting public funds for assistive technology

In LMICs, where a larger share of the economy is informal than in HICs, raising public funds is more challenging. Domestic public revenue mobilization in African countries averages 19 per cent of GDP compared with the 34 per cent OECD average (Modica, 2018). This implies that fiscal reality is not merely about African countries having a lower GDP per capita, but that the share of societal resources available for allocation to the social sector is smaller. However, there are potential approaches for expanding national budgets allocated to AT:

A. **Budget priority within the general government budget is the starting point for how much is available to assistive technology.** The budget formulation process affects how assistive technology is prioritized and safeguarded. Following on from the previous section, once the population needs and national priorities are determined, the recommended next step is developing national assistive technology priorities, for example an Assistive Products Priority List, which is budgeted to clarify the ambition and scope of the government's commitment. Government budget practices for assistive technology are very heterogenic across countries, and the actual priority to assistive technology in government funding is difficult to assess because of the oftentimes multiple responsibilities across line-ministries and

levels of administration. In addition, the type of AT domains and interventions these resources are targeted for typically varies between budget holders within any one country. A cross-sectoral and consistent budget strategy prevents overlaps and wastage.

B. **Designated assistive technology lines in the government budget can build accountability for how much is allocated, and ultimately spent.** Regardless of how many different government entities have allocated budget funds for AT, specific line-items in government budgets on relevant administrative levels (national, regional, local) with designated resources for assistive technology can ensure a policy ambition is translated into resource availability for the population.

C. **To increase accountability and effectiveness in public spending, and future advocacy for assistive technology, budget practice can include what should be achieved for the allocated resource.** Many countries increasingly practise various forms of programme budgeting to increase focus on performance, by which the budget is formulated and executed based on defined goal-oriented programmes (Barroy et al., 2018). In countries where the health and social sectors have advanced on programme budgeting, it can also be applied to assistive technology specifically. Then focus on how much is spent is complemented by what effect it has.

D. **Additional revenue collected through compulsory insurance contributions (or social health insurance) has been introduced in the last two decades in many LMICs where it was previously not practised.** Often based on labour income, this is a common approach to increase public resources but carries limitations, especially in LMICs. The introduction is often intended to complement government budget funds and carries hopes to afford additional healthcare, sometimes also including assistive technology that has not previously found priority in public spending (Visagie et al., 2020). However, generating additional funds based on labour income meets the fundamental problem that it requires a relatively high formal labour participation rate, which is low in many LMICs. Also, if specific benefits like assistive technology are linked to the insurance contribution, an equity problem arises as it may limit entitlements for people who cannot participate, including many children, women and persons with disabilities (Yazbeck et al., 2023).

E. **Collecting revenue for social purposes from undesired consumption is increasingly practised in public health and financing policy.** Such health or sin taxes target consumption instead of labour market activity, which is an opportunity for assistive technology, for example in allocating road traffic or petrol taxes

towards prevention of conditions that drive the need for assistive technology or rehabilitation services. In **South Africa**, the Road Accident Fund generates revenue through a fuel levy that is used to rehabilitate people injured in road accidents. This serves as a complementing dedicated rehabilitation and AT financing model to expand services (Tay-Teo et al., 2021).

Taxing consumption can serve dual purposes by nudging behaviour and generating revenue. There is an increasing body of evidence that taxes disincentivize the consumption of unhealthy products, such as tobacco or alcohol, are effective. However, when successful in limiting undesired consumption, their fundraising effect decreases. Caution is also warranted about the contribution's distribution across the population, so that a tax intended for a specific social need does not disproportionately burden lower-income people (Cashin et al., 2017). Some revenue sources may predominantly collect revenue from the relatively wealthy, such as aviation fees, which are practised in 18 African countries (Nabyonga-Orem et al., 2023) or the bank cheque transaction tax allocated to disability services (including assistive technology) in **Argentina** (Tay-Teo et al., 2021). See focus area #3 for further guidance on earmarking funds.

FOCUS AREA #3: EARMARKING RESOURCES FOR ASSISTIVE TECHNOLOGY AT THE SOURCE OF COLLECTION

Raising funds for a specific purpose, like assistive technology, by earmarking the revenue at source for a specific purpose, is a politically attractive approach. For taxes on consumption, many countries earmark a financial resource to a disease or service area. The additional funds can be designated for a broad purpose, such as a sugar tax for the health budget, or more specifically such as towards diabetes services. Whether funding for a specific intervention such as assistive technology actually increases depends on downstream decisions in the budget process and how health benefits are designed (see chapter 5.1.2 Decision-making on assistive product and service coverage below).

However, earmarking revenue can have multiple unintended negative effects. Earmarking resources for a specific purpose already at the source can become an impediment to flexibility when newly identified or urgent needs are not met, and an unnecessary fragmentation in the use of funds. It can also become an argument for not allocating general budget resources, i.e. earmarked funds might over time replace existing allocations rather than add to them. Safeguarding resources, by means of monitoring attribution and additionality, is difficult over time as budget classifications, the relative share of each spending item and inflation, can change the actual amounts made available (WHO, 2021b). Too narrow a specification of end purpose can also create inequities, for example, when traffic fees are earmarked for AT needs caused specifically by traffic injury, rather than the same need regardless of cause. The collective evidence on how to avoid potentially negative effects of earmarking revenues to increase available funding for a specific social purpose suggests these taxes should primarily be seen as a tool to limit undesired consumption rather than a fiscal 'money-maker'.

3.2.2. Household out-of-pocket payments as a source of revenue

Direct household payments for assistive technology will continue but carry significant risks for needs-based access and efficiency, which public policy can mitigate. AT utilization is very reliant on out-of-pocket payments, as displayed by national level data (figure 3). This means out-of-pocket payments are an important source of funding that is not realistic to abolish in the AT sector. Out-of-pocket payments can complement government funding and thereby enable more utilization for the population in need. However, out-of-pocket payments come with severe challenges to financial protection and financial barriers to access, which also risk detrimentally affecting the efficiency of the AT system as utilization of resources is governed by ability-to-pay rather than need.

A domestic financing strategy can shape the user-fee structure to mitigate negative effects. To the extent possible, out-of-pocket payments should be consciously leveraged for assistive products and services with the lowest access barriers. This reduces dependency on out-of-pocket payments and can mitigate the risk of negative effects such as financial hardship for the user (WHO, 2023). This means out-of-pocket payments should be limited to assistive technology that:

- Is low cost
- Meets needs with a relatively short time-frame
- Meets relatively lower functional difficulty
- Allows for exemptions for vulnerable users, if information systems permit and transparency about the rules can be upheld.

In very resource-constrained communities, out-of-pocket payments requirement leads directly to unmet need. Household payments can have different detrimental effects depending on the structure of the local economy and the specific source of OOP. In **Afghanistan** the incidence of financial hardship due to care needs is lower among people who can source the payment from their salary or savings than for those who must borrow or sell assets (Dastan et al., 2021). Where formal incomes are few and barter trade is common, formal co-payments give a higher risk of forgone care.

When household payments are possible, there is still a risk of financial hardship and ultimately impoverishment due to the nature of AT costs which are continuous and relatively high.

FOCUS AREA #4: EXEMPTING HEALTH CARE USER FEES FOR CHILDREN IN BURKINA FASO TO STRENGTHEN EQUITY AND FINANCIAL PROTECTION

Exempting user fees for vulnerable groups has become an important strategy to reduce financial barriers and advance equity in health systems. For example, governments of several West African countries have removed user fees for priority groups such as pregnant women, young children and older adults, ensuring these medically and economically vulnerable populations can access services like antenatal care, assisted deliveries and primary care for children without financial hardship. In **Burkina Faso**, removing all user fees for children under five led to substantial improvements in equity and financial protection, such as reduced differences in care-seeking across income groups, and eliminated financial hardship for families. However, global evidence also underscores the importance of complementing user fee exemptions with adequate budget allocations, improved provider payment mechanisms and clear communication to service users. Such comprehensive policy measures are essential to ensuring user fee reduction policies translate into their intended effects (Dehnavi, H., Nematollahi, M.S., Daneshkohan, A. et al., 2026).

Consumer loans and microcredit arrangements may ease the pain but the funding source remains the household. Credits to enable access (sometimes labelled loan-based or deferred payment models, or organized as credit guarantees) provided by product vendors, government-supported programmes or separate credit institutes, are common in high- and middle-income countries, though these are less frequent in low-income country contexts. Formal arrangements are particularly common in the United States, but exist in various formats in many countries. It can, depending on design, avoid unmet needs for assistive technology or alleviate financial hardship. Digital payment solutions may also increase efficiency in these mechanisms (Chen et al., 2025). But while these mechanisms can enable the individual to access a product at a specific point in time, funding is still sourced from the household and does not use pre-paid pooled resources that can share the burden based on need. Moreover, these are less accessible in low-income countries and in many cases less trusted. Hence, they make access dependent on ability-to-pay and should be ‘second-line’ strategies. For strategies about how to apply and regulate co-payments, see chapter 5.1.3 Decision-making on cost-sharing below.

3.2.3. Collecting development partner resources

Total contributions from development partners are small relative to total assistive technology funding, but an important part for specific interventions and population groups. Development partner funds are voluntary contributions aimed for AT utilization. A key characteristic of this funding stream is that it is almost exclusively purpose driven, whether for a specific health condition, disability or vulnerable population group (Bhat et al., 2024). Hence, these resources are typically earmarked at the source. While they can be seen as a consequence of failing public commitment (The Lancet Oncology, 2017) and fragmentation in funding streams in itself is challenging in the AT sector, they can be essential to meet specific needs and their effectiveness is partly dependent on how gaps in affordable access are identified.

The ability to raise these funds is related to trust and transparency, which can be supported by information systems and digital tools. Special purpose fundraising based on identified gaps in health coverage can be a motivating factor both for contributing individuals and organizations raising funds (Snyder et al., 2020). Development partners' fundraising is also dependent on the level of trust it can communicate, how well specific goals and purposes are formulated, and whether there is a system and sense of accountability. Digital solutions for sharing information, reporting results and tracking attribution of specific contributions, hold potential in this field.

Financing policy can support the development sector in meeting gaps in affordable quality assistive technology. Development partner contributions are by nature not governed directly by public policy, but are part of the government's regulatory responsibility. The government's commitments can also signal to development partners on national priorities and potential for long-term sustainability of funded programmes. The focus on meeting needs in a specific geography, product or disability area, sometimes dependent on preferences and directives from the funding source, makes effectiveness and accountability in development partner funding dependent on how well it complements existing coverage. Chapter 6 Leveraging private funding and provision for assistive technology below guides effective use of private resources by providing strategies for complementarity of public and private resources.

Development partner contributions and crowd-funding are mechanisms to pool small individual amounts from a large number of contributors. Commonly labelled crowd-funding when used to raise capital for entrepreneurial projects such as developing a new product, the term is also widely used for funding NGO activities and provision of social and health services. Both purposes are most often based on unconditional donations, but can be linked to a reward or benefit entitlement to increase the collection capacity. All these contributions have an intrinsic pooling function in that they accumulate funds that otherwise would have been too small to be efficiently used (see chapter 4 Pooling funds for assistive technology below).

FOCUS AREA #5: VOLUNTARY OR PRIVATE INSURANCE AS A METHOD FOR RAISING FUNDS AND INCREASING ASSISTIVE TECHNOLOGY COVERAGE

In HICs, some assistive technology, such as hearing aids and spectacles, are commonly covered by voluntary supplemental or employer-sponsored plans, while prostheses and mobility aids are less frequently included. Depending on regulation and practice, AT inclusion in voluntary health insurance can improve coverage, partly because rehabilitation and assistive technology becomes more available with improved access to general healthcare (Azizatunnisa et al., 2024). However, in LMICs, the market conditions for these plans are seldom present, as few people can afford the contribution (premium). Because the ability to pay contributions does not correlate well with need for AT, voluntary health insurance also carries severe equity barriers to overcome, especially in LMICs, and is therefore seldom useful for increasing needs-based affordable access (WHO, 2018b).

4. Pooling funds for assistive technology

Pooling funds

KEY MESSAGES

- Pooling funds for assistive technology across line-ministries and levels of government is important both for allocating resources to meet needs, and to make more use of the resources available.
- There are also immense benefits in pooling arrangements in the non-government sector for assistive technology. However, the government may need to play an active or guiding role.
- Pooling resources is possible without centralizing important local and individual decisions about volume and customizing specific assistive technology.

Since the responsibility and funds for assistive technology are distributed across ministries and geographic areas, aligning different funding streams for common purposes is crucial. The second pillar in the functional framework to domestic financing strategy (figure 4) covers pooling resources. In all countries, financial resources are fragmented in various 'pots of money' to a greater or lesser extent. This might be by geographies like municipality and regional administrations with separated income streams and budgets, by labour market status like separate social benefits funds for civil servants and private employees, or insurance arrangements that separate population groups by purchasing power. The potential benefits of an effective pooling policy are:

- **Redistribution of ability-to-pay and risk of assistive technology need.** Wealth and income, as well as need for various social and health services, vary across the population. To ensure access to assistive technology is based on needs rather than ability-to-pay, any society needs mechanisms to redistribute financial resources between individuals with high to low ability-to-pay, and from low to high need. In addition, at any specific point in time, the future need for assistive technology is

not known by the individual. Most interventions in assistive technology are life-long, which makes risk-sharing important also for low-cost interventions. Pooling resources for assistive technology on behalf of a large population base enables effective risk-sharing.

- **Strategic and efficient use of resources.** In addition, pooling can support centralized knowledge and capacity for many governance tasks, such as consolidating needs assessments, developing guidelines and practices, growing purchasing power and strategically distributing resources for the highest possible impact. These efforts give scalability to lower costs and can minimize fragmented administrative functions.

Since development partners play an important role in assistive technology, pooling strategies can include public and private funds. Development partners, including international and local NGOs and private foundations, are important stakeholders in the AT ecosystem. Two in three users in LMICs obtain their assistive technology directly through the private sector, which is instrumental in development and availability of quality assistive technology (ATscale, 2025c). The more these assistive technology needs can be funded by pooled resources, the more likely the assistive technology is to be provided based on need.

Increasing pooling size for better purchasing power is effective both globally and nationally. On the global scene, unified pooling of funds for critical pharmaceuticals has been used for many years to leverage global purchasing power, for the benefit of both price and quality (Huff-Rousselle, 2012). In domestic financing, the same is true for nationally centralized purchasing, which is also an important strategy in pharmaceutical policy (Nguyen et al., 2015). The same principles apply to AT financing, both globally and in national contexts. In **Kenya**, AT2030 has worked with the Ministry of Health and local disability organizations to pilot community-based AT provision, blending international aid and national health budgets (AT2030, 2025). Pooling resources across fundraising mechanisms can help purchasers use their market power, save administrative costs, and make it easier to attain needs-based AT allocation across the population (focus area #6).

FOCUS AREA #6

Expanding access to spectacles by combining resources from markets with differences in ability to pay

Access to spectacles can increase a worker's productivity by over 30 per cent, with corresponding gains in income, as well as educational outcomes for those in school (Reddy et al., 2018). VisionSpring is a social enterprise that increases access to affordable spectacles in low- and middle-income countries by combining market-based strategies with philanthropic support. The organization enables provision in communities where traditional market solutions are not viable by delivering low-cost spectacles through a hybrid financing model that blends earned revenue with philanthropic support. Revenue from sales sustains operations in more-viable markets, while philanthropic funding subsidizes services in low-income and remote regions, enabling the organization to maintain affordability while scaling its impact sustainably. A task-shifting strategy supports scale, wide geographical reach and efficiency, while building local capacity. Trained 'vision entrepreneurs' and community health workers conduct basic vision screenings and dispense ready-made glasses, often in areas where optometrists are scarce.

Pooling globally scattered resources for scaling procurement and production

Consolidating Logistics for Assistive Technology Supply and Provision (CLASP) is a social enterprise that combines demand from buyers of mobility devices such as wheelchairs, postural support devices and walking aids. This pooled procurement mechanism enables multiple buyers – government agencies, NGOs, charities and private entities – to combine their individually relatively low purchasing power. By aggregating demand, CLASP enables smaller buyers to be part of a larger procurement arrangement. This can lower costs by economies of scale among producers and by enabling supply chain efficiency. Small-scale suppliers of AT, particularly in small low-resource countries where volumes are low, can increase their range of products with this arrangement. In addition to market access and favourable prices, there are quality gains from these pooled resources arrangements. By applying unified product specifications and standards to these combined purchases, quality can rise. Combining resources for products distributed to multiple sites and organizations also allows for more resources to support fitting and user instructions, which enhances purposeful application of devices (www.clasphub.org).

5. Purchasing assistive technology

Purchasing assistive technology

KEY MESSAGES

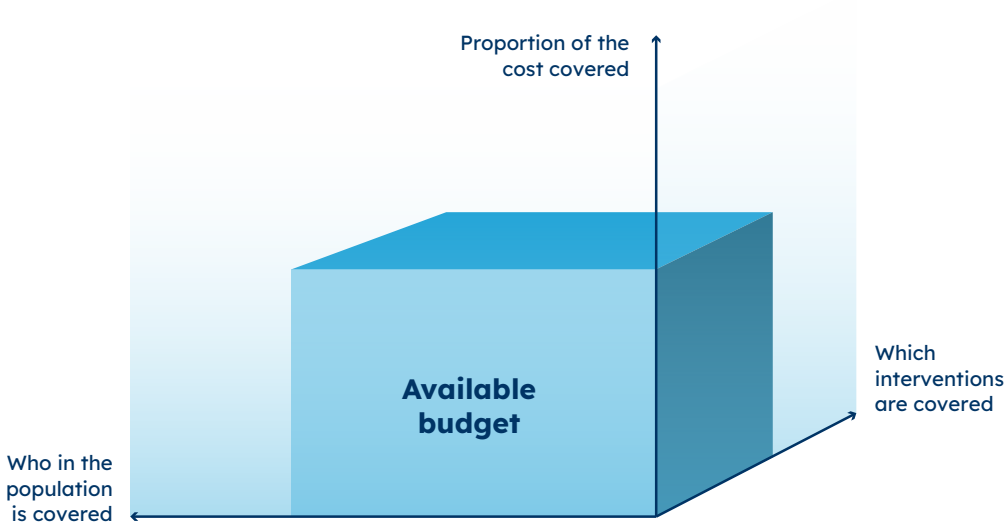
- The purchasing strategy for assistive technology requires a systematic approach to prioritization, including (i) decision-making on population coverage, (ii) decision-making on assistive products and services coverage, (iii) decision-making on cost-sharing, all based on criteria for desirable outcomes such as financial protection of vulnerable populations.
- Effective assistive technology requires provision of both products and services along a continuum of interventions, all of which need to be adequately funded. To determine assistive technology coverage, the priority setting must include products and services expected to be covered across the complete assistive technology service delivery continuum.
- A national priority assistive products list can be a critical tool for prioritization. To meet its objectives, it must be adapted to available budget resources.
- Cost-sharing strategies must be carefully developed to suit LMIC contexts. Blunt cost-sharing approaches to affording more assistive technology do not prioritize among products and services, and there is a risk that only those who can afford the payment can benefit from the public funding. For LMICs, often the most effective approach is to simplify cost-sharing by clearly prioritizing the most needed products at zero co-payment.
- Purchasing strategy also includes developing contract and payment mechanisms for services and products, creating conducive incentives for providers and suppliers to contribute to affordable access.

Society must make the best possible use of the resources at hand for assistive technology. The third pillar in the functional approach to domestic financing strategy is purchasing of assistive technology (figure 5). Purchasing implies making a deliberate and informed choice about which assistive products and services the financial resources should be spent on, and adopting payment mechanisms that incentivize AT suppliers and providers to work towards the same objectives as society at large.

5.1. Defining what should be publicly funded in assistive technology

Creating affordable access involves hard priority-setting in several dimensions. With a constrained budget for all stakeholders, priorities must be made in which assistive technology can be afforded and who is eligible to these. When these priorities are not based on strategic and systematic choices, there is risk of implicit rationing, i.e. unspoken and indirect limitation in access or quality because of unmanaged scarce resources. The universal health coverage (UHC) framework illustrates the interdependency across choices of these dimensions, from deciding who in the population is entitled to assistive technology (such as priority population groups), which interventions (products and services) within assistive technology will be funded, and the proportion of costs covered (figure 7).

Figure 7. The Universal Health Coverage framework



Source: Adapted from World Health Report 2010: Health Systems Financing - the Path to Universal Coverage

5.1.1. Decision-making on assistive technology population coverage

The starting point for decision-making on who is entitled to benefit from available resources is to find the most purposeful definition of who needs assistive technology. Countries apply different techniques to define population coverage. The legislated system for priority setting is often dependent on how the general health system is funded. For example, general government budget funding (**United Kingdom**) or compulsory insurance (**Germany**) leads to different ways to regulate who is entitled to assistive technology (Panteli et al., 2018).

A functional assessment criterion can guide assistive technology prioritization, if applied wisely. In many countries, access to AT coverage requires the individual to have obtained a formal disability certification (Cote, 2021). This can act as a strategy for targeting people in need and therefore prioritizing resources. However, the approach has some limitations as it is an administratively costly and lengthy procedure both for users and the provision system (Waddington & Priestley, 2021), and the precision in spending resources on actual need is unclear. People who do not meet the legal definition of disability, cannot navigate the registration process, have impairments related to ageing, or have temporary impairments are often excluded. Furthermore, not all disability definitions capture the cumulative impact of multiple conditions. Disability certification also risks becoming a stigmatizing and excluding descriptor for individuals that are already marginalized (WHO-UNICEF, 2022). Therefore, an individual functional status assessment is more targeted and often more resource-efficient in establishing need for an assistive technology than a general disability status.

A criterion on poverty or financial vulnerability is potentially useful for targeting resources to where they most effectively reduce access barriers. As social protection programmes are designed to protect all, actual spending is most often targeted to the most vulnerable, to increase effectiveness (Grosh et al., 2022). The same principle applies to working for access to affordable assistive technology, as poor people are furthest away from utilization. However, means-testing also requires administrative and methodological capacity to effectively target the intended population groups and can in itself create additional barriers for persons with disabilities (Kidd & Athias, 2020).

Both effective functional assessment and poverty criterion are useful but place high demands on service delivery and information systems. Many countries combine needs- and means-testing to prioritize resources, often with regulation integrated with general healthcare entitlements. In **Indonesia**, persons with disabilities who are in the two lowest income quintiles have access to fully subsidized health insurance, which covers a defined set of assistive products. **India** combines functional status and means-testing, where a degree of assessed disability above 40 per cent gives eligibility to different levels of assistive product subsidy depending on whether household income falls below defined thresholds (Cote, 2021). To be effective, such models require trained workforce capacity to assess functional status and AT needs, validated and transparent classifications, and information exchange between multiple public agencies.

5.1.2. Decision-making on assistive product and service coverage

While assistive technology is unquestionably an area with high societal returns, the value of assistive technology risks being underestimated in traditional health prioritization tools. From a cost-effectiveness perspective, as used in conventional economic evaluation of health interventions, the more health impact the intervention gives relative to cost, the stronger the case for prioritization.[4] But these approaches are designed to capture standard health outcomes and not wider functional values (Albala et al., 2021). AT evaluations with traditional cost-effectiveness approaches are indeed very rare and standards on assessing assistive technology from this perspective have not yet emerged in literature and practice (Borgnis et al., 2023). Most existing studies can therefore inform only about effect relative to cost as compared to not using assistive technology. Developing conventional economic evaluation tools applicable for assistive technology, with adequate value given to both health and functional impact, would enable comparison with other health interventions and assistive technology could potentially be given higher priority.

4. In this report, the term cost-effectiveness is used as an umbrella term for all economic evaluation approaches that compare cost to effect or impact. For understanding of different specific evaluation approaches such as cost-effectiveness, cost-utility and cost-benefit, we suggest Methods for the economic evaluation of health care programmes by Drummond et al.

With a constrained budget, it is ultimately about choosing among different interventions within the same functional area. While traditional economic evaluation methods are difficult for comparing AT costs and effects to other health spending, they can still support priority-setting within AT interventions, and be used to find consensus on the outcomes matrix and associated data collection methods (Ramella et al., 2024; Salatino et al., 2018). The return on investment study (ATscale, 2020) shows different levels of economic and health returns per dollar spent for categories of assistive technology, with high returns for all. With scarce resources, the most cost-effective assistive technology within each functional area can be selected.

The Assistive Products List is an important tool in defining the most essential assistive products. The global APL serves several purposes, such as definitions and regulation of quality standards and technical specifications, price regulation and procurement specification (WHO, 2016). As the globally defined APL builds on an evidence-based selection of effective AT, it is a useful base for selecting the assistive products to include in a national health benefits package for public funding, or related prioritizing tools.

To use the APL for prioritizing financial resources, its application must be adapted to available resources. If the national APL generates cost estimates of required spending that is beyond reach within a budget planning cycle, it will not help in prioritizing services. This means, when used for prioritizing a national AT budget specifically, it needs adjustment to align with national priority criteria and budget. The 2018 World Health Assembly resolution Improving access to assistive technology explicitly urges member states to develop a national priority APL that is affordable and cost-effective (WHO, 2018a).

FOCUS AREA #7: THE PRIORITY ASSISTIVE PRODUCTS LIST (APL)

To improve global access to affordable, high-quality assistive products, WHO has introduced the global APL. This list identifies 50 essential assistive products that significantly enhance individuals' independence, functioning and quality of life. The global APL is meant to be a flexible model to help any country develop its own national list based on local needs and resources. Like the WHO Essential Medicines List, the APL aims to guide product development, service delivery, procurement and coverage policies, while also raising awareness and stimulating market competition.

The APL was developed through a multi-step process, beginning with a scoping review of over 10,000 articles to identify evidence-based assistive products. This was followed by a consensus using the Delphi method, where experts from 52 countries reviewed and refined a preliminary list of 150 products, grouped into six broad domains: mobility, vision, hearing, communication, cognition and environment. Through three rounds of consultation, the list was narrowed to 50 priority products. To ensure broader representation, a global survey was conducted in 52 languages, gathering input from over 10,000 people in 161 countries – including people with disabilities and older adults. Finally, a consensus meeting brought together 70 stakeholders to finalize the list (WHO, 2016).

Following new evidence, advancing products and growing recognition of the importance of AT, WHO publishes a second edition the Assistive Products List in 2026. Some 300 assistive products were evaluated based on inclusion criteria framed along four dimensions: need (global prevalence of product need, relevant impairments and health conditions); benefits of product on individuals; risks associated with use; and product cost.

One country that has applied this approach is **Liberia**, whose first National Priority Assistive Products List, published in 2021, was designed to identify products that would provide the greatest benefit while being realistically deliverable within the country's existing funding and service-delivery realities. To accomplish this, multiple government and non-government organizations participated in consultations to evaluate and prioritize products using defined criteria, including impact on quality of life and the cost of corresponding assistive products.

5.1.3. Decision-making on cost-sharing

Once population and assistive technology coverage have been established, there is a choice to be made on how much the users should cover themselves. AT access is very reliant on large direct household payments, which for the most part originate in spending on products that are not covered by any pre-paid funding scheme, such as the government's budget or development partner programmes. In many countries, benefits provided in the publicly funded assistive technology system are partially funded by the user. Ultimately any user payments risk becoming a barrier for needs-based affordable access. There, any cost-sharing approach must be carefully designed to avoid detrimental effects.

When population entitlements are unfunded, or formally free-of-charge benefits exceed available budget capacity, the objective of needs-based access is not achieved. An overpromise of benefits risks leading to undesirable effects, such as informal payments, quality shortcomings, and waiting times caused by stockouts. Time-bound volume contracts and shortage of human resources are common when stated benefits lack budget resources. Therefore, explicit and transparent prioritization by sharing costs can be preferred. Depending on context and application, it may also guide consumption choices towards the most effective interventions.

Blunt user fees across a broad range of assistive products to afford more assistive technology for limited public funds are not effective in prioritizing among users and interventions. The choice of cost-sharing application should focus on supporting needs-based utilization. Spreading public or other pre-paid resources thinly by applying general cost-sharing across a broad range of products does not guide the system. Cost-sharing is difficult to apply in such a way that it helps the user distinguish between high- and low-value assistive technology, i.e. it leads to choices about use and reduction of use of both very effective and less effective products or services, which leads to inefficient use of resources (Graf et al., 2024).

The ambition to reach more people by partly subsidizing many products risks only reaching those who can afford the remaining co-payment. Then public funds reach relatively well-off people, instead of people with the most need for AT. If applied, fixed flat-rate co-payments are easier to make transparent and protect users from high-cost assistive technology better than cost-sharing based on a percentage of the cost. Fixed co-payments also give better incentives to the purchasing agency to keep prices down, as the individual user, with limited bargaining power, meets the same cost (WHO, 2023).

FOCUS AREA #8: LOW-COST ASSISTIVE TECHNOLOGY DEPENDENT ON AN INDIVIDUAL'S EQUIPMENT MAKES AFFORDABILITY DIFFICULT, REQUIRING INNOVATION IN DESIGNING BENEFITS PACKAGES

Smartphones are powerful enablers for low-cost AT applications, if entry costs are affordable for the individual. With digitalization, assistive technology is increasing the number of applications embedded in other products, such as eye-gaze, voice-input and text-to-speech techniques. Most of these applications are highly effective and still very low-cost, but conditional on having an expensive device. The prime example is smartphones, which for persons with visual and hearing impairments can replace multiple assistive products such as screen readers, hearing amplifiers and magnifiers (ATscale, 2023; Dobosz, 2025). Smartphone adoption is growing fast globally but, in 2023, ownership was still below 50 per cent in many LMICs and, in countries of all income segments, ownership is considerably lower among people with disability (ATscale, 2025a).

Some countries have included smartphones in their public benefits for people with a functional need, but budget resources in LMICs fall short. For example, in **Georgia**, with 3.9 million inhabitants, 50 smartphones were distributed in one year by the State programme for social rehabilitation and childcare (ATscale, 2025c). The intention of such a strategy is cost-sharing with users, so the government covers the more expensive hardware, while users can use out-of-pocket payment resources for the relatively inexpensive software. However, this calls for careful design of AT benefits packages, as ambition to include more than the public budget can afford could lead to undesired implicit priority mechanisms. Targeted benefits help, such as entitlement based on income level or specific indication with high need. This will become easier as low-cost mobile phones are increasingly available.

There are many techniques to use when defining a co-payment strategy for a country, or differentiating it across the population. This includes assessment of the individual's functional ability, prescription by designated specialists, subsidy of an amount up to a reference price for each product, cost-sharing limited to a yearly ceiling amount or exemption for persons with low income, and more. However, applying cost-sharing comes with information needs and transaction costs. Countries with advanced administrative infrastructure and information systems can apply different versions of these, such as full cost coverage at 60 per cent or more functional incapacity (**Portugal**) or capped co-payments of €385 per year for defined assistive products (**Netherlands**) (Smith EM., 2023). However, for countries with weak information systems, the ability to target individuals and high administrative costs risks outweighing benefits of cost-sharing arrangements (WHO, 2023). For many LMICs, the most effective approach is to simplify cost-sharing strategies by clearly prioritizing products that can be included in the benefits package for no co-payment. This reduces transaction costs, limits data requirements, and does not unduly raise expectations.

5.1.4. Criteria for setting priorities

In deciding what products and services should be funded, for whom, it is useful to establish criteria that can guide the choices. Coverage policy improves and population support increases when cost-effectiveness is combined with other criteria (WHO, 2021b). Many countries have other relevant priority criteria including access to assistive technology as a right (Domingues & and Laplane, 2024), user experience (Layton et al., 2025), financial protection of people in need of assistive technology, and equity in utilization.

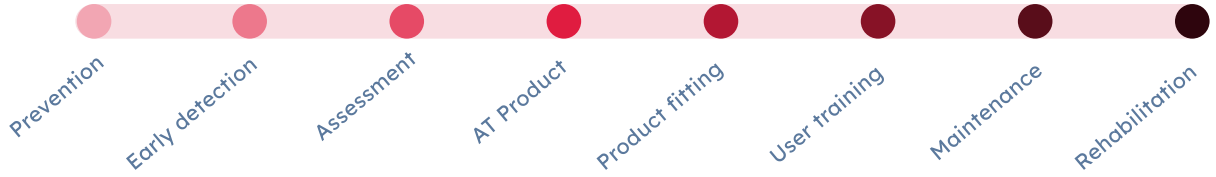
The choice of criteria affects the priority given to different products and services by balancing different objectives. Reading glasses are a case in point, as they have proven to have a high impact relative to their low cost, i.e. they are highly cost-effective, particularly if the effect measurement is education or labour income (Sehrin et al., 2024). They are also relatively low-cost and long-lasting, i.e. the financial burden on households obtaining reading glasses at their own expense may be limited (unlike other spectacles), if the retail market works well (see chapter 5.3.2 Prices and market efficiency below). This gives reading glasses low priority from equity and financial protection perspectives.

5.2. Aligning financing with the assistive technology provision model

Effective assistive technology is dependent both on products and services. Assistive technology is a continuum of interventions, which all need to be funded for any specific assistive technology to be effective. There is a strong focus on product procurement and product use in assistive technology, but their success depends on associated services, such as fitting to its users, education in its usage, and maintenance and repairs. In some instances, a product can even be harmful if fitting or other services are not available. The reliance on an effective AT continuum varies by how complex the specific assistive technology is, as highly standardized and simple products are less reliant on associated services (e.g. walking sticks). Still, most assistive products must be applied in a purposeful service delivery model, which implies that AT financing must be aligned with how interventions are organized (for

the illustrative case of hearing aids, see Dillard et al., 2025). Solutions in revenue raising, pooling and purchasing must then be effective along the continuum of assistive technology, not only for product provision (figure 8).

Figure 8. For effective assistive technology, financing arrangements need to include the entire continuum



Utilization is often conditional on the individual's ability to fund selected parts of the continuum, even when a product is made available at low cost. Assistive technology has recurrent ancillary costs. For instance, hearing aids require frequent replacement batteries, ear domes or moulds and routine maintenance, which is a challenge for affordability in LMICs (Dillard et al., 2024; McPherson, 2018). Another case in point is prostheses, often abandoned due to the high cost of repairs and replacement (Marino et al, 2015).

Different elements of the AT continuum are often provided in different health and social care providers, all of which need to be appropriately funded. Many assistive products and services are more accessible when provision is integrated into primary and elderly care. In addition to user benefits, costs can be contained through task sharing among staff resources and infrastructure, which ultimately makes more resources available for additional assistive technology. But policies to integrate assistive technology with general health, social or education services require that financing and regulation come hand in hand with the provider model. In **Tajikistan**, a new AT service model has been successfully developed, with gains in access and quality, but public funding of this new way of working is yet to be secured (focus area #9).

FOCUS AREA #9: TRANSFORMING ASSISTIVE TECHNOLOGY PROVISION IN TAJIKISTAN FOR IMPROVED ACCESS AND EFFICIENT USE OF RESOURCES

In **Tajikistan**, the Ministry of Health and Social Protection is piloting AT provision through primary health centres in a new one-stop model, where AT provision is integrated with health care to bring services closer to users and increase synergy with capacities in health care. At the primary level, family doctors and nurses conduct screening and provide basic products such as crutches, reading glasses and toilet chairs. At the secondary level, district or regional hospitals conduct more advanced assessments, deliver products such as wheelchairs and hearing aids, supported by specialists (ear, nose and throat doctors), and provide rehabilitation. The scarcity of professionals is mitigated by training general health staff, which enables specialists to focus on complex cases and supervise for quality. So far, 23 types of assistive products are provided in primary health centres, with reduced waiting times and comprehensive care at one location. In addition, efficiency has increased through coordination of resources, and across the system, awareness about assistive technology has increased in the community. Next, for sustainability and independence of external partners, financing of this service model needs to be integrated with the health care financing system. This includes several elements, such as the benefits package regulation, the distribution of assistive products funded by the state budget, and a budget allocation for human resource development to ensure adequate skills and competencies (ATscale, 2025d).

5.3. Payment, prices and market for assistive technology

The appropriate contract and payment mechanisms for services and products vary by product complexity and service delivery model. As effective assistive technology is dependent on both products and associated services, product procurement and service contracting need to be aligned, although with variation by type of AT. Some assistive products such as prostheses or hearing aids meet complex functional needs and require multiple services. These different components in the care continuum are best served when budget streams and purchasing procedures are coordinated. Payment for relatively simpler assistive technology is less sensitive to how well services and products are coordinated, which allows for less specification of contracts and demands on providers.

5.3.1. Payment models for assistive technology as a service

The payment model should support the assistive technology service delivery and help solve defined performance challenges. A key task in paying for assistive technology is designing the right incentives for providers, relative to identified specific challenges in affordable access. For example, **Georgia** recently introduced a public reimbursement per consultation for assistive technology in primary health care, to

incentivize larger uptake and responsiveness (ATscale, 2025b). Figure 9 describes the main techniques to define the AT service task and its payment by the purchaser.

Figure 9. Service payment mechanisms and assistive technology relevance

PAYMENT MECHANISM	DESCRIPTION	INCENTIVES AND IMPACT
Input-based payment	Prospective payment for provider's total cost for providing assistive technology defined by set of provider capacity, services, time period, and catchment area. Sometimes labelled global budget and typically based on historical line-item budgets.	• Sensitive to how explicitly assistive technology is budgeted and described in contracts. • Sensitive to internal provider prioritization, especially in constrained budgets. • High control on spending by purchaser.
Activity-based payment	Case- or specific service-based payment for assistive technology. Providers are paid a fixed amount for an intervention defined by the patient's consultation, diagnostic or receipt of an assistive product. Can be condition- or function- specific and adjusted by severity and patient characteristics.	• Encourages providers to deliver more of the assistive technology specified in the contract. • Encourages efficiency but risks over- or under-utilization relative to need, depending on specification. • Risks fragmentation in the AT continuum, depending on specification. • Financial risk with the purchaser.
Capitation payment	Assistive technology responsibility included in a fixed amount defined by enrolled number of people, or catchment area, disbursed to providers regardless of intervention volume.	• Encourages providers to work preventatively (e.g. mobility support and aids to reduce falls) and minimize unnecessary services. • May lead to low accessibility and low provision of costly interventions. • High control on spending by purchaser.

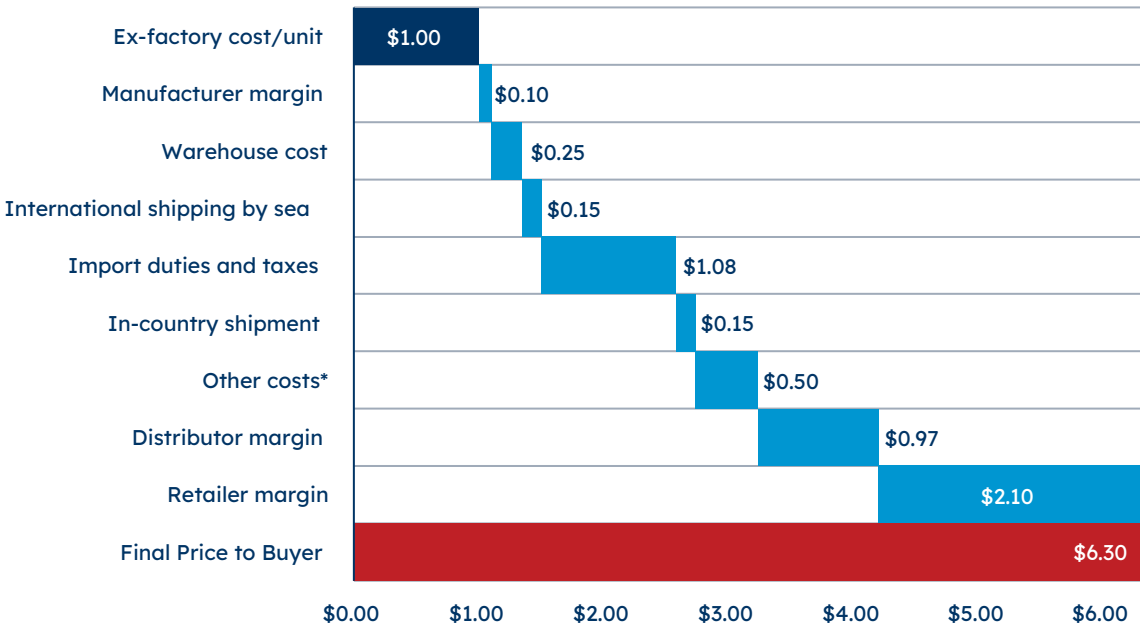
For additional payment mechanisms such as voucher systems and impact-based funding, using private sector engagement, see chapter 6.2 Maximizing impact in the use of public and private resources.

Source: Authors, based on Cashin (2015)

5.3.2. Prices and market efficiency

Purchasing power in public and large not-for-profit organizations is often not used at its potential. Knowledge about prices and analytical ability in the purchasing organization can obtain more assistive products and services for available resources. Distributor margins for wheelchairs are estimated to range between ten per cent and more than 200 per cent of ex-factory cost. Retailer margins for spectacles are estimated to range from zero (among some NGO providers) to at least 210 percent in LMICs. In **Bangladesh**, distributor and retail margins constitute half of the final market price, three times more than production costs (figure 10). The variation indicates the potential in building capacity in the purchasing organization, in addition to regulation efforts in the market.

Figure 10. Cost components of $1 ex-factory spectacles with $6.30 retail price in Bangladesh



Source: Assistive Products Market Report 2025 (ATscale, 2025a)
*Note: Other costs include quality inspection costs, management costs, clearing + forwarding agent fees, etc.

Local production and assembly is one of many alternatives to making assistive products more affordable. Encouraging local production is an attractive idea for many policy makers, although often with other objectives than increasing access to affordable AT, such as creation of qualified labour opportunities. But price of products or components, relative to quality and availability, is dependent on multiple factors, which does not necessarily make domestic production superior to imports. A complementary

strategy to local assistive products manufacturing, which can meet objectives of both affordable access and local labour market, is to focus development on the services around a product. In the application of the product along the AT continuum lies potential for qualified work and user value, in particular for assistive products with large elements of customization.

Digital solutions are scalable at a new dimension with potential for effective yet low-cost assistive technology. The digitalization leads to new assistive products such as augmentative visual and hearing communication by screen readers and smartphones, but also to many traditional assistive products transitioning from mechanical products to digital, with enhanced functionality or availability at lower costs (ATscale, 2023). An intrinsic feature to digital tools, with vast implications for financing, is that scaling-up the use of a product can come at very low cost. In fact, the marginal cost of one additional user applying, for example, a software, is close to zero, which makes it different from physical products requiring production, transportation and storage. Low cost is, however, not the same as low price, which makes purchasing more complicated and may necessitate shared up-front costs (see chapter 6.2 Maximizing impact in the use of public and private resources).

Finally, all purchasing arrangements must balance benefits in scaling with flexibility in use. Large-volume purchases need to be combined with flexible use of assistive products (WHO, 2020, 2021a). Therefore, using pooled resources for procurement of products to distribute across multiple AT provider contexts needs flexibility in:

- **Local customization to provider and individual assistive technology user knowledge.** For example, local assistive technology providers need flexibility in customization options and type of products over time, which translates to regional variation in the national system.
- **Development partner missions.** Their target populations vary, for example by age, for similar products. Their funding and delivery cycles vary and they may have different demands from members or financial contributors, which leads to specification needs.
- **Administrative and legal regulation applications.** Within any one country, local administration and AT provider budget processes may vary considerably, which necessitates alignment of legal and regulatory processes in large purchases.

6. Leveraging private funding and provision for assistive technology

KEY MESSAGES

- Non-government efforts are more effective when it is clear to all stakeholders which assistive technology is publicly funded, for whom, and on what terms. With a well-designed domestic financing strategy and good governance, private sector funds can be leveraged for additional resources.
- A domestic financing strategy can catalyze private sector participation beyond direct procurement by adopting market-shaping mechanisms, such as sharing risk in investments and market entry, market volume guarantees and microfinancing, and support for entrepreneurship and employment for persons with disabilities.
- When data on need, utilization and effects allow, more innovative financing arrangements can be applied, such as paying for product use instead of the product, or even for impact, for example increasing functioning among users.

Public policy can increase the impact of the large private funding and provision resources in the assistive technology sector. The impact of private sector engagement must not be measured by the additional magnitude of resources, but by the increase in needs-based access in the system. This chapter presents principles and examples of how to make the best use of the private sector.

For financing policy development, it is useful to separate the dimensions of financing and provision. Assistive technology as a sector, just like health generally, is often looked upon as either public or private. But AT policy needs to recognize the specific role a private engagement has in the system and how a specific public-private partnership adds value. Separating funding and provision helps to understand the nature and benefits of these policy choices (figure 11).

Figure 11. Examples of resource combinations in assistive technology along dimensions of funding and provision

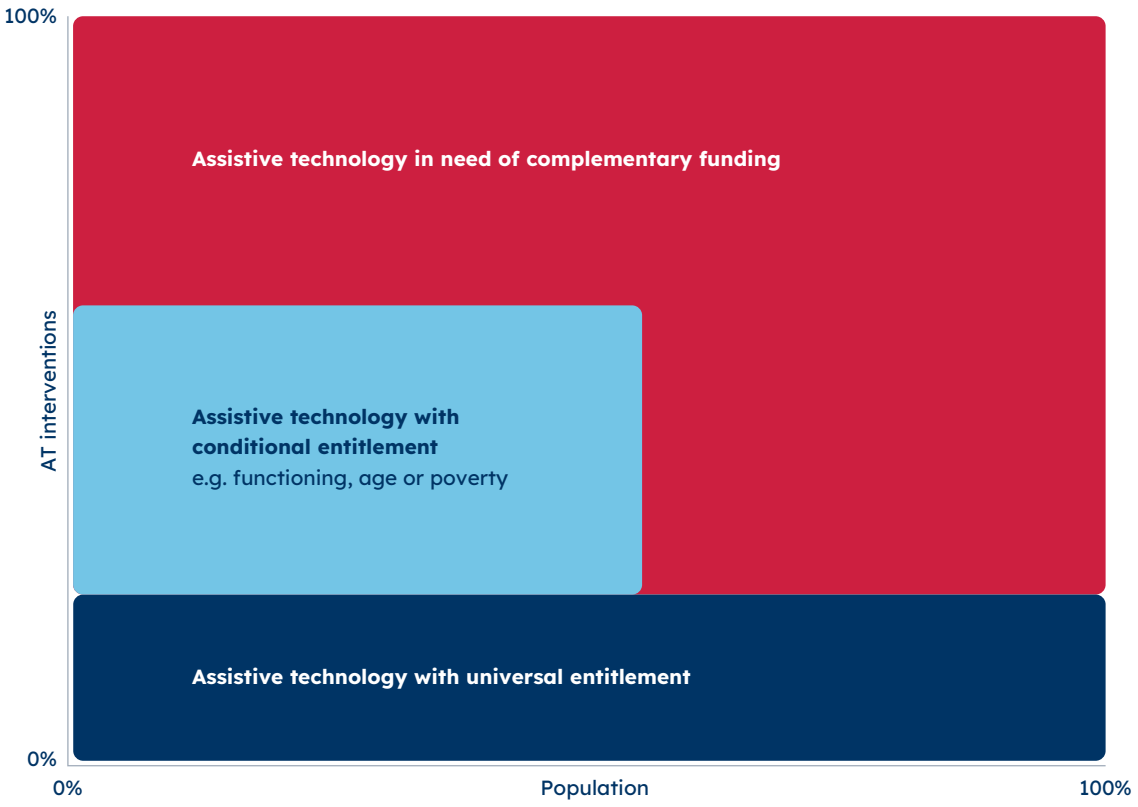
	Public provision	Private provision
Public funding	**Vietnam** – The National Rehabilitation Program funds assistive products distributed through public rehabilitation centres (WHO, 2019).	**South Africa** - Government vouchers subsidize assistive products (e.g. hearing aids) provided by private clinics (WHO, 2019).
Private funding	**Uganda** - Faith-based donations (churches and NGOs) fund assistive products distributed via public hospitals (MoH, 2020).	Several LMICs - Non-profit organization Humanity & Inclusion funds assistive products in partnership with private providers (HI, 2025).

6.1. Transparency in the public funding commitment increases access

People in need of assistive technology face a spectrum of products and services offered on varying and unpredictable terms. Assistive technology is characterized by inadequate public funding in combination with unpredictable private funding streams from development partners, including international and national NGOs and private foundations (Tay-Teo et al., 2021). In addition, the latter is often designated for needs defined at the source rather than at the user end. Navigating entitlements, product availability and quality is difficult for the individual, causing access barriers and inefficiencies, particularly for people with disabilities. Uncertainty and fragmentation also cause inefficiency and lost opportunities among suppliers, NGOs and AT professionals (ATscale, 2025c).

Clarity about which assistive technology is publicly funded increases effectiveness of other funding arrangements. Access in most LMICs is highly dependent on the engagement of multiple stakeholders, national as well as international. For example, in **Malawi** it has been shown how eight organizations supplied 36 assistive products, with related services for those products provided by 12 different organizations (Smith et al., 2023). This report uses the UHC framework to specify how population groups and AT interventions (products and services) can be explicitly prioritized to attain the highest possible performance in the system (see chapter 5.1 Defining what should be publicly funded in assistive technology). The coordination and complementary efforts required for assistive technology to be equitably and efficiently provided becomes much easier when the 'AT benefits package' is there at the core and is well known to all stakeholders (figure 12).

Figure 12. Illustration of funding commitment to assistive technology by intervention and population group



Source: Authors

Private stakeholders benefit from meeting coordinated funding. Pooling resources and strategically purchasing a defined set of assistive technology offers more than lower unit costs and shared ability-to-pay between individuals. Private producers and providers, including distributors and retailers, as well as social enterprises and NGOs, can more effectively provide the needed assistive technology when there is clarity in the market about what the government funds pay for. The CLASP example (focus area #6) shows the benefits of pooling funds for scaled procurement and manufacturing. When funding responsibility along AT interventions, and possibly specific population groups, is clear, such arrangements are even more effective as they can target gaps and different funding streams can complement each other.

FOCUS AREA #10: INCREASING ASSISTIVE TECHNOLOGY LITERACY

Needs-based utilization is easier to obtain when people are knowledgeable about assistive technology. Access to healthcare is sensitive to factors such as societal stigma and health literacy, in addition to barriers like user payments and physical access, not least for people with disability (Gréaux et al., 2023). People with disabilities in LMICs are also more likely to be marginalized or have missed schooling (Groce & and Bakhshi, 2011; Karki et al., 2023). Low awareness about rights to, and availability of, assistive technology is highly prevalent especially in LMICs, which hampers access (Karki et al., 2023). For people with intellectual disabilities, lack of awareness about assistive products has been shown a particularly important barrier (Boot et al., 2018).

Priorities across assistive products and services are more effective when people are knowledgeable about their entitlements, i.e. what they can access at low cost. If this knowledge is absent, equitable and efficient utilization is difficult to achieve as it is dependent on ability to express demand. This is true for all types of public funding, but also pre-paid private funding, and applies to general health benefits (Anas et al., 2025; WHO, 2021b) as well as assistive technology specifically (Pedersen et al., 2021).

6.2. Maximizing impact in the use of public and private resources

With a well-designed domestic financing strategy and good governance, private sector funds can be leveraged for both additional resources and increased utility. Public and private entities can meet in common interests in multiple ways. This section describes the functional role some of the common public-private partnerships have in financing AT. Each potential solution must be assessed in a specific context for how it can increase access to affordable assistive technology. Using private resources can make AT systems more complex, and strong regulatory and monitoring ability in

government institutions are needed to ensure private entities have appropriate incentives and are held accountable. These capacities are often inadequate in LMICs, and have to be developed to ensure societal objectives are attained (WHO, 2025b).

SHARING RISK IN INVESTMENTS AND MARKET ENTRY

Many investments and market engagements can be made 'affordable' by lowering risk. Both the cost of capital and the cost of providing specific products or services correlate with risk. Oftentimes it is risky for organizations to invest in infrastructure for developing or providing assistive technology, to expand distribution and services in an area where there is uncertainty about ability-to-pay or about licensing and market regulation, which can lead to low access and high prices (MacLachlan et al., 2018). Credits and loan guarantees can be organized by government agencies, or supported by public policy when commercial. Guarantees of volume or price in the market are practised by many public purchasers such as national health insurance agencies, and development partners can also provide such guarantees. The approach can be combined with subsidized prices or particular benefits for underserved communities. For example, suppliers may seek a premium to engage in remote or relatively poor areas (WHO, 2025a).

SUPPORT ENTREPRENEURSHIP AND EMPLOYMENT FOR PERSONS WITH DISABILITY THROUGH MICROFINANCING

Access to traditional financial services for persons with functional limitations are often scarce due to discriminatory lending practices and other social exclusion, lack of collateral and irregular income, and limited financial literacy, especially among low-income households. Microfinance arrangements providing access to credits, savings and financial services can enable self-employment and entrepreneurship (Disability Evidence Portal, 2025). Effectiveness increases when financial services are directed towards an income-generating activity, when the programme design can manage the volatility of informal-sector income, when interest rates are moderate and well regulated, and when borrowers have access to complementary services such as business training. A case in point is the Financial and Social Inclusion Project by BRAC **Myanmar**, which provides a 'graduation-model' approach to supporting people with disabilities, combining cash assistance, life-skills

training, comprehensive technical training and tailored financial services. Among persons with functional limitations participating in the project, 97 per cent experienced better living conditions and improved livelihoods (BRAC, 2023).

PURCHASING CONDUCTED BY THE USER (VOUCHER AND PERSONAL ALLOWANCE SYSTEMS)

In well-regulated and functional markets, the actual purchasing can be handed over to the user, practised with some variation like vouchers, cash benefits, patient cards or allowance systems. Utilizing public funds to shift purchasing power to users can leverage market dynamics by enhancing user participation and influence. Various forms of voucher systems are practised to make use of market forces in AT provision, or to leapfrog challenges in public provision. Eligible individuals are issued a combination of value check and prescription for use with approved service or product providers. When it works well, providers increase their focus on quality and responsiveness to users' needs. Personal allowances, commonly practised in several European countries, is a format that gives the user the largest flexibility in identifying specific needs (Smith EM., 2023). Voucher systems, and even more so, personal allowance systems, work best when a set of preconditions are in place:

- Clear and accessible information is available on products and providers for users.
- Literacy and awareness are present about how the system and products work.
- The provider structure is diverse and geographically well distributed.
- Systems are available for tracking voucher usage and user feedback.
- Clear rules define pricing and service standards.

Many of these preconditions are difficult to meet in LMICs, especially in rural areas. This leads to public funds not being well spent, as there is a risk that only users who are relatively well informed, wealthy and living in urban areas benefit.

PAYING FOR UTILIZATION INSTEAD OF PRODUCTS

Paying for the ability to utilize products can increase focus on the product's life-cycle. Assistive product suppliers have limited interest in reusing and recycling and, although quality is decisive for their success, product longevity is not their objective. In addition, the wider AT system is seldom designed to incentivize maintenance and repairs. In **Tajikistan**, 46 per cent of AT users stated that repair or maintenance services are "rarely or never" available (ATscale, 2025d). If assistive technology purchasers formulate contracts to make products available for ongoing use rather than simply disbursing them, providers may have more interest in extending the product's life-cycle.

Paying for use of assistive technology instead of a specific assistive product can lower cost barriers and integrate products and services. Utilization is often conditional on the individual's ability to fund selected parts of the continuum (see chapter 5.2 Aligning financing with the assistive technology provision model). When appropriate use instead of purchase of products is in focus, costs for associated services in the continuum can be included. For example, hearing aids are expensive, but the life-cycle cost includes the retail product price as well as the recurrent ancillary costs of replacement batteries, ear dome or moulds routine maintenance (WHO, 2025a). Lending and renting are emerging in assistive technology, often combined with product maintenance, although still uncommon in LMICs (Martínez-Silva et al., 2025).

RESULTS- AND IMPACT-BASED FINANCING

While currently rare in assistive technology, there is significant potential for purchasers to design payments to reward the ultimate goal of increased functional ability. The approach can be practised as a marginal incentive targeting different levels of outcomes. Any of the service payment models described in figure 9 can be complemented with such a 'bonus' for achieving certain results.

On a larger scale, financing schemes can be designed to pay for long-term impact instead of specific interventions, such as school or labour market participation, or other increased utility for the individual. Ultimately, what a funder of assistive technology wants is impact. Social, or health, impact bonds are financing mechanisms

where the purchaser reimburses the provider if predefined outcomes are achieved, with the aim of incentivizing measurable impact. Impact bonds are used across health, education and employment. Applicable to assistive technology, such models are best suited to when the provider is responsible for a larger part of the AT continuum beyond just product or single service provision.

Public and private entities can take roles as both purchasers and providers. Most impact bond schemes are designed around a public purchaser and a private provider, but the possible arrangements are many. In **South Africa**, a HIV prevention intervention for adolescent girls and young women implemented by the Medical Research Council has been funded by the Global Fund, for which the government was accountable for results following services delivered by the Medical Research Council (Mathews et al., 2021). Another example is the International Committee of the Red Cross (ICRC) Humanitarian Impact Bond, which raised funds from private investors to build and operate three physical rehabilitation centres for persons with disabilities in conflict-affected regions of **the Democratic Republic of the Congo**, **Mali** and **Nigeria**. After five years, a group of donors, the 'outcome funders', rewarded ICRC and the investors in a payment-by-results model according to benchmarks like number of people who received mobility devices as well as trained new staff (ICRC, 2017).

Yet, there are still few examples of outcome- and impact-related purchasing in assistive technology. A key reason for this is that data on user impact and satisfaction are rarely available in LMICs' health and social services information systems, and even less so for assistive technology. Data on utilization and its effects are paramount for any outcome-related model to be effective.

7. Data on need and utilization for effective financing strategy

KEY MESSAGES

- Scarcity of relevant data on needs and utilization hampers decision-making on resource allocation in the AT sector.
- The global initiatives for standardized survey data can meet basic data needs, but countries must integrate assistive technology data into existing information systems in relevant sectors.

Sparse and disparate data on assistive technology needs and utilization hampers informed policies for affordable access. In all social sectors, capturing population needs, utilization and outcomes is essential for working towards effectiveness and efficient use of resources. However, measuring access and other performance aspects in functionality and disability is traditionally weak (Bright & Kuper, 2018). It is also suffering from the documented global variation in definitions of assistive technology and its impact (Danemayer et al., 2022; Smith et al., 2025). Consequently, prevalence rates of disability show large variation by different estimates in many countries (Gudlavalleti, 2018).

Successfully implementing the key recommendations in this report requires data availability. Prevalence by type of functional disability across the population is needed to make informed decisions about resource allocation for AT utilization. These data are arguably even more important than data on financial allocations themselves, which are also scarce. Further, complementarity in efforts by public and private entities (see chapter 6.2 Maximizing impact in the use of public and private resources) requires national information systems that inform stakeholders about availability and utilization of assistive technology. For example, NGOs can be more effective when gaps in access are well known. Local community fundraising arrangements have been shown to be more successful for beneficiaries in geographical areas that are already relatively well served, and hence are less effective in raising funds for the most vulnerable (Cai et al., 2025).

Data gaps are caused partly by the financing arrangements themselves. Compared to overall healthcare, funding and provision of assistive technology rely relatively more on household OOP, and the AT sector is more fragmented. Therefore building standardised data collection systems is more difficult. In LMICs, data collection on health status and care utilization through (electronic) medical records systems is also less developed, and data availability is relatively more dependent on well-developed population surveys.

Standardized survey data collection on assistive technology need and utilization is emerging. In countries where inclusion of assistive products and services within administrative data collection, such as electronic medical records systems, cannot be foreseen in the near future, population survey modules to inform AT indicators are vital. However, functional difficulty questions are still seldom included in household surveys (Mitra et al., 2022). The Washington Group on Disability Statistics develops tools for measuring disability through surveys (Madans et al., 2011). These tools are grounded in the WHO International Classification of Functioning, Disability and Health and aim to identify functional difficulties rather than medical diagnoses. One example is the World Bank's Living Standards Measurement Study programme, which increasingly integrates these questions on disability status into household surveys.

Examples of more specialized surveys with granular data are the Model Disability Survey developed by WHO and the World Bank to measure disability (WHO, 2024b) and the WHO rapid Assistive Technology Assessment implemented as a population-based household survey in 35 countries in 2021, with the ambition to be repeated regularly (WHO, 2021c).

National assistive technology information systems must adapt to the sector's organization. So far, tools and initiatives for monitoring assistive technology are not standardized and regularly applied nationally. Several regulatory efforts can support this development to the benefit of the entire sector:

- Compulsory registration of assistive products in the retail sector, such as data collection requirements for product licensing, which is common for other health products.
- Registration by condition and activity (by established tools like the WHO International Classification of Functioning, Disability and Health) can be a standard requirement in contracts when public funds are used.
- Integration of these data into routine health information systems.
- Nationally institutionalized capacity for using these data in monitoring and assessments.
- Assistive technology must be included in the governance portfolio of core health agencies such as quality inspectorates and performance monitoring agencies, which exist in most countries, even though responsibility for assistive technology may lie with other line-ministries.

8. Recommendations and next steps

This report on domestic financing for assistive technology applies public and health financing concepts and evidence to the assistive technology sector with the aim of guiding both government and non-government stakeholders to better aim, prioritize and design national strategies. It is evident that investing in assistive technology yields high societal returns. The growing need for assistive technology with ageing populations and the subsequent need for all to sustain functional abilities will increase the importance of strengthening domestic financing strategies for assistive technology in the future. The public sector must assume greater responsibility by providing more financial resources, maximizing the impact of its spending and establishing policies that foster contributions by other stakeholders.

To increase access to affordable quality AT, a country-contextualized strategy towards domestic financing is required. There is no one-size-fits-all solution in domestic financing. This report presents a structure for systematically thinking about policy questions and country-tailored choices. The key recommendations in developing a domestic financing strategy at the country level are the following:

SETTING OBJECTIVES

The first step in developing a domestic financing strategy for assistive technology is for key national stakeholders to define objectives for the AT sector. The national government has a role in leading such an exercise in close collaboration with relevant ministries. This must be developed in accordance with available evidence, advice from technical experts, and with the participation of organizations of persons with disabilities and representation of the populations in need.

DETERMINING A GOAL FOR AN ADEQUATE LEVEL OF PUBLIC FUNDING

Public funding is the most critical source of funds to drive needs-based access to assistive technology and, therefore, it is critical to determine the most effective strategies to expand the government's national resources dedicated to assistive technology. In the national context, the determined level of funding must relate to how much societal resources are available and the relative priority to other social needs. Key approaches to expand available public funds are to build a strong case for assistive technology demonstrating social and economic outcomes, establishing dedicated budget lines, and finding complementary revenue sources such as health taxes for AT-related programmes.

POOLING OF FUNDS

Pooling funds for assistive technology across line-ministries and levels of government is important both for allocating resources to meet needs and to make more use of the resources available. National policy can play a role to enable pooling of resources by identifying funding streams, public and private, which have the same, or related, purposes with regard to target groups or products. It can also reduce fragmentation in financing arrangements, save administrative costs, make it easier to ensure needs-based allocation of assistive products and services, and support driving down product prices.

DECREASING AND LIMITING NEGATIVE EFFECTS OF HOUSEHOLD OUT-OF-POCKET PAYMENTS

For example, by limiting user payments to assistive technology that is low-cost and has a short time-frame of use, better structuring of AT payment policies, leveraging alternative mechanisms that support restructured or deferred payments such as micro-lending, and allowing for exemptions for vulnerable users can limit negative effects of assistive technology user payments. Trying to reach more people by partly funding many products poses the risk that benefits of these resources reach only those who can afford the remaining co-payment. For LMICs, often the most effective approach is to simplify cost-sharing by clearly prioritizing the most needed products at zero co-payment.

INCENTIVIZING AND GUIDING DEVELOPMENT PARTNER FUNDS

With a well-designed domestic financing strategy and good governance, private sector funds can be leveraged for both additional resources and to identify and cover gaps more effectively. Domestic financing strategy has a strong role to play to crowd-in resources towards assistive technology through better data on needs and utilization and transparent rules and descriptions about what is publicly funded.

PURCHASING ASSISTIVE TECHNOLOGY

The purchasing strategy for assistive technology requires a systematic approach to prioritization and decision-making along three dimensions. This includes (i) population coverage, (ii) assistive products and services coverage, (iii) cost-sharing. Working for accessible assistive technology is always subject to scarcity in funding. Countries must prioritize resources by making informed decisions about which assistive products and services should be publicly funded, which necessitates a government-led priority-setting process to ensure coverage of essential assistive technology. When a national priority assistive products list is used specifically for prioritizing financial resources, the applied list must align with budget resources.

LEVERAGING THE PRIVATE SECTOR

Domestic financing strategy can incentivize private sector participation in the AT sector beyond direct payment for assistive technology, such as sharing risk in investments and market entry, market volume guarantees, supporting entrepreneurship and employment for persons with disabilities, among others.

LEVERAGING OPPORTUNITIES IN DIGITAL ASSISTIVE TECHNOLOGY

Scaling digital assistive technology and services can lower cost and other access barriers. However, their development and deployment are expensive, and access is often conditional on an expensive enabler such as a mobile phone. Sharing investment risk and lowering individual entry cost for low-income users are examples of harnessing benefits while ensuring needs-based utilization of digital innovations.

INCREASING DATA AND EVIDENCE

Finally, data on need and utilization of assistive technology are too scarce. The sector is characterized by a lack of data and evidence on how well utilization meets the need and effectiveness of interventions. This is a challenge for effective provision and utilization, but also financial resource allocation for assistive technology would benefit from more and better data. There is a need to increase data availability on financial resources allocated to assistive technology covering all relevant administrative levels, and to develop benchmarks for assessment and monitoring of financial resources for assistive technology. Integrating AT data on needs, utilization and effects with relevant information systems, such as classification systems and administrative records already available in relevant sectors, enables more effective resource allocation.

There is a need for continued research and evidence generation to advance this subject area, with a specific focus on providing practical tools and approaches for policymakers or other relevant stakeholders in financing. Some reflection on future areas of study and evidence generation are provided below:

- Case studies on effective domestic financing strategies for assistive technology in LMICs.
- Guidance on costing and cost-effectiveness analysis of assistive products and services.
- Benchmarking national budget allocation to assistive technology and approaches for monitoring.
- Guidance on prioritization of limited resources and recommendations on complementarity of public and private sector funding.
- Frameworks and tools on provider payment mechanisms and different reimbursement models for funding assistive technology in LMICs.
- Guidance on pooling resources and procurement.
- Evidence on micro-financing mechanisms to expand access to assistive technology.

As governments increase commitments and focus on access to assistive technology, there is also a need for partners from across the sector to build a community and share ideas and lessons to further advance. While this report aims to present a starting point, it hopes to trigger longer and more collaborative discussion.

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