

# Systems Strengthening for Assistive Technology Workforce



A worker at the National Orthopaedic Centre (NOC), Dushanbe, fabricating locally manufactured mobility products. The ATscale-supported programme has been supporting NOC to refresh their strategy and implementation plan. Photo: WHO Tajikistan.

## What is systems strengthening for assistive technology?

Access to assistive technology relies on an effective system built on key interconnected building blocks: governance and leadership, financing, service delivery, workforce development, assistive products, data and information systems, all centered around people. Strengthening assistive technology systems requires coordinated investment in each of these building blocks to enhance their capacity and ensure they function efficiently and cohesively. Systems strengthening lies at the heart of ATscale's country investments, tailored to specific national contexts.



*The critical 'building blocks' of systems strengthening for assistive technology*

## What are the key challenges?

Worldwide, more than 2.5 billion people need one or more assistive products, such as wheelchairs, hearing aids, prostheses, spectacles or digital assistive technology. This number is expected to rise to 3.5 billion in 2050.

Lack of trained workforce is a large factor affecting access to assistive technology. The Global Report on AT in 2022 found that globally only 1 in 10 countries had adequate and trained resources for any of the functional domains, and 14% had no relevant training and education.

In low- and middle-income countries, the challenge is even greater; 93% have fewer than one audiologist per million, optometrists operate at densities of less than 0.08 per 100k contrary to the recommended 1 per 50k<sup>1</sup>, and there is usually only one prosthetics and orthotics professional per million, contrary to the suggested minimum of five per million<sup>2</sup>.

A trained workforce is critical for assistive product provision and its associated services to ensure the appropriate screening, referrals, assessment, prescription, fitting, user training, follow-up, repair and maintenance. However, training can be costly and time-consuming, and in many cases, accredited courses are not available locally, making it very difficult to address the shortage in the short run.



An estimated **4.4 million** full-time personnel are required to meet **global assistive product needs.**  
(Rosberg Petersson et al., 2025)

## How does ATscale address these challenges?

To address this gap, supporting training and capacity building of the assistive technology workforce remains central to ATscale's country programme investments.

<sup>1</sup> Naidoo KS, Govender-Poonaam P, Morjaria P, et al. Global mapping of optometry workforce. Afr Vision Eye Health. 2023;82(1), a850. <https://doi.org/10.4102/aveh.v82i1.850>

<sup>2</sup> Mdudana L, Tiwari R, Lieketseng N, Chikte U. Exploring national human resource profile and trends of Prosthetists/Orthotists in South Africa from 2002 to 2018. Glob Health Action. 2020 Dec 31;13(1):1792192. doi: 10.1080/16549716.2020.1792192. PMID: 32723026; PMCID: PMC7480577.

ATscale employs a multi-pronged approach, implementing both short- and long-term solutions. The interventions target building capacity in pre-service, post-service and training institutions for long-term sustainability.

Personnel are supported in upskilling for assistive technology through their current roles in health and social care; community healthcare workers and teachers trained in vision and hearing screening facilitate screening of school-aged children during the course of their existing duties. The efforts are underway to integrate new training curricula into professional training and continuing professional development programmes for the workforce.

Funding and scholarships are provided to support the training of personnel at existing institutions, both within the country and overseas, who then return to work within the healthcare system. This is further strengthened at the country level by introducing a mandatory period of public services for the professionals benefiting from scholarships, advocating for the creation of new positions within services and rational distribution of the workforce.

In countries where appropriate training doesn't exist, training courses and curricula are created or upgraded to ensure quality delivery meeting international standards, including promoting the use of the latest technology. Countries are also promoted to utilize a blend of online and practical training resources to train people at scale and scale up workforce capacity in the provision of basic assistive technology and its integration into primary health care.

## Stories of Impact

**Training on Assistive Products** - The World Health Organization, with support from ATscale, has developed 'Learning on TAP', an online learning resource to provide training for primary health care and other community-level workforce, increasing access to health services. This training, on assistive technology, eye and vision care, and vision and hearing screening, has been rolled out in multiple countries, including **Tajikistan**, where ATscale's programme supports healthcare workers who have incorporated these screening practices into their daily activities.



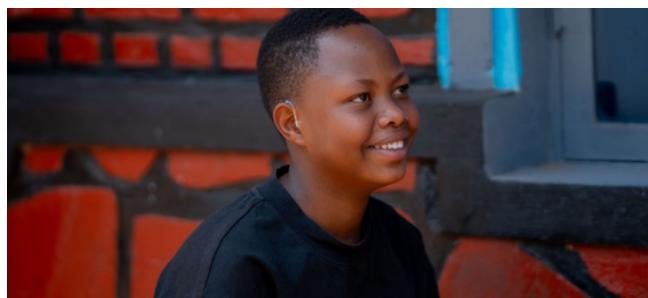
Staff at the Rasht Health Centre are now equipped to support wheelchair users with product selection, fitting, training and follow up care thanks to Training on Assistive Products. Photo: WHO Tajikistan

**Cambodia and Senegal** - ATscale has supported training in prosthetics and orthotics through country programmes in Cambodia and Senegal. In **Cambodia**, ATscale has supported a scholarship programme for thirteen students to pursue training at the Cambodian School of Prosthetics and Orthotics, who will be placed in Physical Rehabilitation Centres by the Government for three years to begin their professional careers once their training is complete. In **Senegal**, three students are being supported to complete their studies at Ecole Nationale des Auxiliaires Médicaux of Lomé in Togo, before returning to Senegal to replace retiring personnel at the National and Regional Centres.



Cambodian students from the Bachelor's in Prosthetics and Orthotics during a visit from the ATscale Partnership.  
Photo: ATscale

**Rwanda** - In **Rwanda**, ATscale supported the integration of Ear and Hearing Care components into the Audiology and Speech Therapy training curriculum. The Audiology Technician Curriculum was also updated to include Rwandan Sign Language and replaced the “Introduction to Audiology” module with “Fundamentals of Audiology Practice”. In addition, training manuals and educational materials were distributed to caregivers, community health workers and teachers to support early detection, maintenance and follow-up of children with hearing aids.



With the help of her hearing aids fitted at the ATscale-supported outreach clinic in Rwanda, Fatuma is able to fully participate in school and dreams of becoming a doctor. Photo: UNICEF/Iyakaremye

## About ATscale

ATscale is a cross-sector global partnership with a mission to improve people's lives through assistive technology. It catalyses action to ensure that, by 2030, an additional 500 million people in low- and middle-income countries get the life-changing assistive technology they need.

Together, let's ensure everyone, everywhere can access and afford the assistive technology they need, enabling a lifetime of potential.



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