

Effective access to Assistive Technology: overcoming gaps in developing countries

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ABSTRACT

Access to Assistive Technology is a key factor to facilitate people with disabilities to enjoy human rights that environmental barriers interrupt. The Article 32 of the Convention on the Rights of Persons with Disabilities related to International Cooperation on Assistive Technology Effective access to Assistive Technology must overcome gaps in developing countries, such as distribution of them, their quality, that Assistive Technology must be affordable. The World Report on Disabilities from the World Health Organization indicates that there are over one billion people worldwide (approx. 15%) who have a disability. According to a recent survey conducted by the WHO (1), the statistics will double over the next 30 years. There will be 2 billion people needing assistive technologies due to the growth of the elderly population.

Developing countries face challenges to implement Assistive Technology policies, there are gaps related to the models about disabilities applied, income distribution, social welfare, among other key factor may have great impacts

Key words: Assistive Technology, Human Rights, developing countries

Introduction

To fully understand what is an effective access to Assistive Technology, and which gaps in developing countries arise, some previous definitions are needed.

According to the World Health Organization WHO (2), Assistive technology is an umbrella term covering the systems and services related to the delivery of assistive products and services. WHO also give examples of Assistive Technology, such as hearing aids, wheelchairs, communication aids, spectacles, prostheses, pill organizers and memory aids are all examples of assistive products.

It is interesting to notice that WHO declares that Assistive products maintain or improve an individual's functioning and independence, thereby promoting their well-being. From a perspective based on The International Classification of Functioning, Disability and Health, known more commonly as ICF, an Assistive technology can be categorized as a facilitator that produces two virtuous effects A) to improve an individual's functioning and independence benefits not only an individual person, but society itself due to the fact that participation of this person will contribute to culture, economy, happiness, health among other critical factors. B) Assistive technology would have impacts on mental health.

The information presented in this paper is based on existing research and, most importantly, the author's own experiences gained during his work as the National Director of the Chilean Disability Fund (current National Disability Service) where he led a national Assistive Products programme, for ONG Inclusiva

Overcoming gaps to ensure effective access to Assistive Technology in developing countries

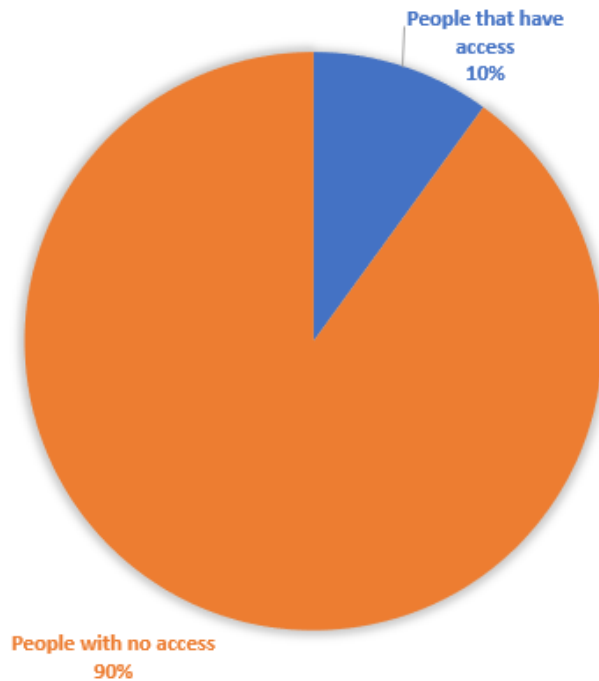
WHO establish that globally, more than 1 billion people need 1 or more assistive products, but today, only 1 in 10 people in need of assistive products have access to them, therefore, the gap of 90% without access to assistive products must be addressed taking into account several key factors.



Access to assistive products. Source: own production based on WHO data

WHO states that with an ageing global population and a rise in noncommunicable diseases, more than 2 billion people will need at least 1 assistive product by 2030, with many older people needing 2 or more of them.

ACCESS TO ASSISTIVE PRODUCTS



Pie graph of the gap to access to assistive products. Source: own production based on WHO data

The above-mentioned gap is persistent in developing countries. Here we have the case of Chile. According to the World Bank After growing at a rate of 4% in 2018, the GDP fell to 1.8% in the first half of 2019 due to a challenging external context, adverse climatic conditions and the delay in some Government reforms.

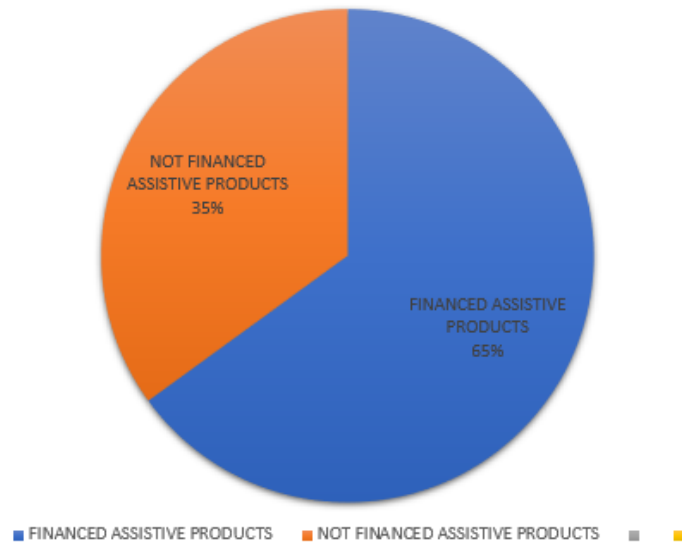
Among the gaps, the world faces that over 75% of low-income countries have no prosthetic and orthotics training programmes. Countries with the highest prevalence of disability-related health conditions tend to be those with the lowest supply of health workers skilled in provision of assistive technology (as low as 2 professionals per 10 000 population) (3)

The Chilean current account deficit (4) increased from 0.9% of GDP in the first semester of 2018 to 1.3% in the same period of 2019. The international reserves, however, remained stable since the current account deficit was financed by external debt (public and private) and, to a lesser extent by foreign investment. The twelve-month rolling central government deficit remained at around 1.7% of GDP in the first half of 2019 as lower copper revenues were offset by the slowdown in current expenditures and the contraction of capital transfers.

That being said, Chile has a system to buy and distribute assistive products for people with disabilities. It started with the law number 19,284 that created the National Disability Fund (5). The law 20,422 replaced the law number 19,284 and create the National Disability Service SENADIS. This law states in its article 6 letter b that assistive products are the elements or implements required by a person with a disability to prevent its progression, improve or recover its functionality, or develop an independent life. Article 62 letter g) of Law 20,422 establishes that the National Disability Service shall: Finance, totally or partially, assistive products and support services required by a person with a disability to improve their functionality and personal autonomy, considering within the prioritization criteria, the degree of disability and the socioeconomic level of the applicant.

The evidence from the Chilean government records shows that, according to SENADIS COMPREHENSIVE MANAGEMENT BALANCE YEAR 2018, reports that the execution of the Budget is insufficient to cover the entire demand for assistive products in the 2018 Call, which increased by 105% compared to previous years. The 2018 budget allowed 35% to be addressed to start its administrative and technical evaluation, leaving 65% without financing in 2018. Users of the program, people with disabilities and institutions of / for people with disabilities report delays of up to three years in the delivery of assistive products.

**ASSISTIVE PRODUCTS BUDGET EXECUTED SENADIS CHILE
2018**



Pie graph of assistive products budget executed by SENADIS, Chile 2018. Source: own production based on SENADIS data

SENADIS reports difficulty in reporting the management of financed technical aids, which do not reflect what is actually executed when comparing the SIGFE platforms (Information system for the Financial Management of the State) and FONAWEB (institutional platform). SENADIS also declares:

□ Delay in the development of the computer system, which generated difficulties in the deadlines administrative and technical evaluation of admissible applications.

□ Insufficient budget to cover the entire demand for technical aid in the Call 2018, which increased by 105% compared to previous years. Budget 2018 allowed to approach 35% to start its administrative and technical evaluation, remaining 65% without financing in 2018

GAPS TO ACCESS ASSISTIVE PRODUCTS:

- GAPS TO IDENTIFY THE REAL NUMBER OF PEOPLE IN NEED OF ASSISTIVE PRODUCTS
- GAPS TO GET PROPER BUDGET TO BUY ASSISTIVE PRODUCTS
- GAPS TO PRODUCE ASSISTIVE PRODUCTS
- GAPS TO DISTRIBUTE ASSISTIVE PRODUCTS
- GAPS TO ENSURE QUALITY OF ASSISTIVE PRODUCTS
- GAPS TO FOSTER INNOVATION OF ASSISTIVE PRODUCTS

Gaps to access assistive products table. Source: own production

Possible solutions to the gaps

1. One of the first solutions to overcome gaps consist of improving protocols of access to Assistive technologies and products. In order to achieve this point, it is of paramount importance to stablish networks with rehabilitation providers, with local governments and with organizations of people with disabilities.
2. Sometimes, different governmental agencies buy assistive products by their own. A coordinated purchasing system can make the difference optimizing quality and costs.

3. Governments can improve budgets getting funds from different development funds and coordinating with international programmes such as GATE. The World Health Organization is developing a flagship programme – Global Cooperation on Assistive Technology (GATE) – in partnership with UN Agencies, international organizations, donor agencies, professional organizations, academia, and organizations of/for persons with disabilities (6).

According to WHO, GATE will open the doors for children with disabilities to access education and adults to earn a living, overcome poverty, participate in all societal activities, and live with dignity, which are some of the key objectives of the global development goals. Assistive Technology, Information and Communication Technology (ICT), Accessible Technology, Universal Design, Accessible or Enabling Environment are all interlinked and are preconditions for mainstreaming disability in development priorities. Investment in technology to make it available and affordable is definitely a practical step to establish the “Promise of Technology to Achieve Sustainable Development for All.”

4. It is very important to highlight the relevance of associating Assistive Technology and Assistive Products with other programmes such as educational programmes, access to work, independent living, disaster risk reduction among others.
5. Systems of Assistive Technology and products impact indicators are key aspects to close gaps in developing countries
6. To help of closing the gaps on assistive technology on developing countries, a comprehensive training programme to increase the number of professionals that can work properly on prosthetic and orthotics training programmes

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