World Health Organization

EQUIPPING, ENABLING AND EMPOWERING

Priority Assistive Products List

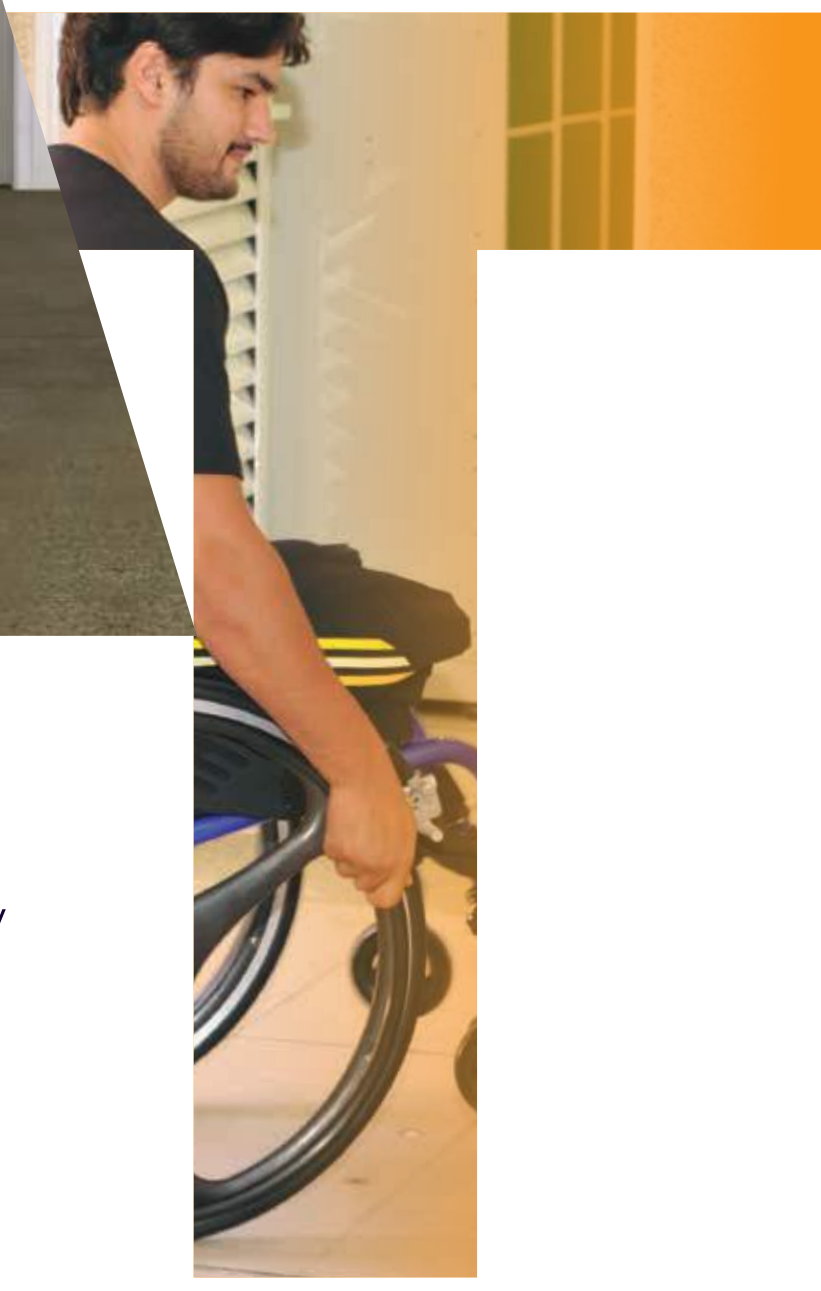
Photo: CBM/Foto Backofen Mhm

Improving access to assistive technology for everyone, everywhere

USAID FROM THE AMERICAN PEOPLE

The GATE Initiative

International Disability Alliance



Improving access to assistive technology for everyone, everywhere

Introduction

WHO estimates that over one billion people need one or more assistive products. The majority of these are older people and people with disabilities. As people age, including those with disabilities, their function declines in multiple areas and their need for assistive products increases accordingly. As the global population progressively ages and prevalence of noncommunicable diseases rises, the number of people needing assistive products is projected to increase to beyond two billion by 2050.

Assistive products enable people to live healthy, productive, independent and dignified lives; to participate in education, the labour market and civic life. Assistive products can also help to reduce the need for formal health and support services, long-term care and the work of caregivers. Without assistive products, people may suffer exclusion, are at risk of isolation and poverty, and may become a burden to their family and on society.

The positive impact of assistive products goes far beyond improving the health and well-being of individual users and their families. There are also socioeconomic benefits to be gained, by virtue of reduced direct health and welfare costs (such as recurrent hospital admissions or state benefits), and by enabling a more productive labour force, indirectly stimulating economic growth.

DEFINITIONS

Assistive technology is the application of organized knowledge and skills related to assistive products, including systems and services. Assistive technology is a subset of health technology.

Assistive products: Any external product (including devices, equipment, instruments or software), especially produced or generally available, the primary purpose of which is to maintain or improve an individual's functioning and independence, and thereby promote their well-being. Assistive products are also used to prevent impairments and secondary health conditions.

Priority assistive products: Those products that are highly needed, an absolute necessity to maintain or improve an individual's functioning and which need to be available at a price the community/state can afford.

Today, even before the predicted steep increases in need for assistive products are established, only around 10% of those in need have access to them. This is due to high costs, limited availability and inadequate financing in many settings, as well as a widespread lack of awareness and suitably trained personnel.

To improve access to high quality, affordable assistive products in all countries, the World Health Organization (WHO) is introducing the *Priority Assistive Products List* (APL). The APL is the first stage of implementing a global commitment to improve access to assistive products – the Global Cooperation on Assistive Technology (GATE).

The APL includes 50 priority assistive products, selected on the basis of widespread need and impact on a person's life. The list will not be restrictive; the aim is to provide Member States with a model from which to develop a national priority assistive products list according to national need and available resources. Like the WHO *Model List of Essential Medicines,* the APL can also be used to guide product development, production, service delivery, market shaping, procurement, and reimbursement policies (including insurance coverage).

The APL will support Member States to fulfil their commitment to improve access to assistive products – as mandated by the *United Nations Convention on the Rights of Persons with Disabilities* (CRPD). More than 162 Member States have ratified the CRPD, thus committing to ensure access to assistive technology at an affordable cost, and to foster international cooperation in order to achieve this goal (Articles 4, 20, 26 and 32).

Member States have also endorsed the Sustainable Development Goals (SDGs). Universal health coverage is central to SDG goal 3 (*Ensure healthy lives and promote well-being for all at all ages).* Promoting access to assistive products needs to be an integral part of universal health coverage if the SDGs are to be attained.

The APL aspires to follow in the footsteps of the WHO *Model List of Essential Medicines*, which creates awareness among the public, mobilizes resources and stimulates competition. It has also supported countries to develop national lists to promote access in their own contexts. The APL is similarly intended to be a catalyst in promoting access to assistive technology – everywhere and for everyone.

More broadly, the GATE Initiative will support the WHO global strategy on people-centred, integrated health services across the life span, as well as action plans on noncommunicable diseases, ageing and health, disability, and mental health.

Who needs assistive technology?

THE PEOPLE WHO MOST NEED ASSISTIVE TECHNOLOGY INCLUDE:

- older people
- people with disability
- people with noncommunicable diseases
- people with mental health conditions including dementia and autism
- people with gradual functional decline

ASSISTIVE PRODUCTS ARE ESSENTIAL TOOLS TO:

- compensate for an impairment/ a loss of intrinsic capacity
- reduce the consequences of gradual functional decline
- help minimize the need for caregivers
- prevent primary and secondary health conditions
- lower health and welfare costs

ASSISTIVE PRODUCTS ARE OFTEN THE FIRST STEP TOWARDS:

getting out of bed and out of one's house

accessing education, work and employment

escaping from poverty and hunger

greater mobility, freedom and independence

inclusion and participation

leading a dignified life

Challenges in access

In 2011, the *World Report on Disability* collated evidence for the global unmet need for assistive products of all kinds. We now know that many people have little or no access to basic assistive products, even in some high-income countries. Today, few countries have national assistive technology policies or programmes. As a result, access to assistive products is far from universal: the majority are left behind.

In many countries, access to assistive products in the public sector is particularly poor or non-existent, leading to high out-of-pocket payments that are a burden for users and their families. People from the poorer sectors of society frequently rely on donations or charitable services, which often focus on provision of large quantities of sub-standard or used products. These are often not appropriate for the user or the context, and may even cause secondary health complications or premature death. Similar scenarios are common in emergency response programmes, where the need for assistive products is high but often neglected.

Affordable and appropriate access requires government commitment to adequate and sustained financing, including efficient procurement of appropriate assistive products and delivery systems. In many high-income countries, people are able to access assistive products via health or welfare systems. Where services exist, they are often stand-alone and fragmented. People must often attend multiple appointments at different locations, which are costly and add to the burden on users and caregivers, as well as on health and welfare budgets.

The assistive products industry is currently limited and extremely specialized, primarily serving the requirements of high-income settings. There is a general lack of state funding, nationwide service delivery systems, user-centred research and development, procurement systems, quality and safety standards, and context-appropriate product design.

Trained personnel are essential for the proper prescription, fitting, user training, follow-up and maintenance of assistive products. Without these key steps, assistive products are often abandoned, of little benefit or harmful, all of which result in extra health care/welfare costs.

By supporting coherent, prioritized national assistive technology policies and programmes, the APL is a potential game-changer in improving access to assistive products globally.

Priority Assistive Products List

1 **Alarm signallers with light/sound/vibration**

2 **Audioplayers with DAISY capability**

3 **Braille displays (note takers)**

4 **Braille writing equipment/braillers**

5 **Canes/sticks**

6 **Chairs for shower/ bath/toilet**

7 **Closed captioning displays**

8 **Club foot braces**

9 **Communication boards/books/cards**

10 **Communication software**

11 **Crutches, axillary/ elbow**

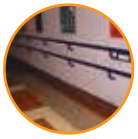
12 **Deafblind communicators**

13 **Fall detectors**

14 **Gesture to voice technology**

15 **Global positioning system (GPS) locators**

16 **Hand rails/grab bars**



17 **Hearing aids (digital) and batteries**

18 **Hearing loops/FM systems**

19 **Incontinence products, absorbent**

20 **Keyboard and mouse emulation software**

21 **Magnifiers, digital hand-held**

22 **Magnifiers, optical**

23 **Orthoses, lower limb**

24 **Orthoses, spinal**

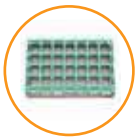
Priority Assistive Products List

25 **Orthoses, upper limb**

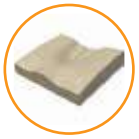
26 **Personal digital assistant (PDA)**

27 **Personal emergency alarm systems**

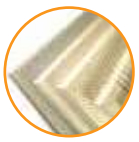
28 **Pill organizers**



29 **Pressure relief cushions**



30 **Pressure relief mattresses**



31 **Prostheses, lower limb**

32 **Ramps, portable**

33 **Recorders**

34 **Rollators**

35 **Screen readers**

36 **Simplified mobile phones**

37 **Spectacles; low vision, short distance, long distance, filters and protection**

38 **Standing frames, adjustable**

39 **Therapeutic footwear; diabetic, neuropathic, orthopaedic**

40 **Time management products**

41 **Travel aids, portable**

42 **Tricycles**

43 **Video communication devices**

44 **Walking frames/ walkers**

45 **Watches, talking/ touching**

46 **Wheelchairs, manual for active use**

47 **Wheelchairs, manual assistant-controlled**

48 **Wheelchairs, manual with postural support**

49 **Wheelchairs, electrically powered**

50 **White canes**

Development of the APL

The APL has taken over a year to develop and has involved extensive consultation with experts, including users and their caregivers. The development of the APL has involved four interlinked steps:

1. SCOPING REVIEW

A scoping review was carried out to gather evidence from the literature on the efficacy of various assistive products in maintaining or improving an individual's functioning, independence, quality of life or well-being. Electronic searches in eight databases for articles published between 2000 and 2014 generated 10,961 hits. Following multistage screening, 205 articles were included for data extraction.

2. DELPHI EXERCISE

For the first round of a Delphi exercise, 150 assistive products were identified from the reviewed articles and included in a preliminary list. The products were divided into six broad domains (mobility, vision, hearing, communication, cognition and environment). Disability and ageing data from 50 countries were analysed to estimate the need within each domain, and a fixed number of products was allocated to each domain accordingly.

The preliminary list was piloted with 30 assistive technology experts from 22 countries. The pilot resulted in an expanded list of 155 products which was used for the first round of the Delphi exercise.

A call to take part in the Delphi exercise was sent to assistive technology stakeholders, including professionals and users' organizations. 200 stakeholders from 52 countries responded. The Delphi exercise consisted of three rounds:

Round 1: Participants received a preliminary list of 155 assistive products. They were asked to review the list and propose any additional products that should be included. As a result, an additional 45 products were added to the list.

Round 2: Participants received the extended list of 200 products and were asked to select up to 100 assistive products that should be given priority.

Round 3: Participants received a list of the 100 highest ranked products from Round 2. They were asked to select up to 50 assistive products that should be given priority.

3. GLOBAL SURVEY

To capture the opinions of a larger global population, especially those of users and caregivers, a global survey in 52 languages was launched and made available online for three months. From the list of 100 products generated in Delphi Round 2, respondents were asked to select up to 50 assistive products that they thought should be given priority. The survey was widely disseminated by Member States, UN agencies, WHO offices, collaborating centres and partners, and the International Disability Alliance. 10,208 people from 161 countries took part in the survey, 44% of whom were older people or people with disabilities. The survey succeeded in reaching people with diverse linguistic and socioeconomic backgrounds.

4. CONSENSUS MEETING

A two-day consensus meeting was held at WHO headquarters in Geneva, on 21–22 March 2016 to finalize the APL. Seventy participants attended the meeting with representation from every WHO region. The meeting included people working in service provision and at a policy level, researchers and representatives from organizations for people with disabilities and older people, as well as individual users of assistive products. Following extensive discussion and deliberation, an overwhelming consensus was reached on the final list of 50 priority assistive products.

Next steps

In order to have maximum possible impact, the APL needs to be supported with additional policy and legislation, resources, and personnel working within integrated health services. Hence, WHO is in the process of developing three additional tools to assist Member States to develop national assistive technology policies and programmes, as an integral component of universal health coverage. These tools include:

Policy: Assistive technology policy framework

WHO will assist Member States to initiate national policy dialogues to develop national assistive technology programmes. A WHO *Model assistive technology policy framework* will support this process, with best practice examples. It will include financing mechanisms, such as health and welfare insurance programmes, to help ensure sustainability of service provision and universal access. The policy framework will also include guidance on implementation of the APL, standards, training, and service delivery systems.

Personnel: Assistive products training package

WHO will support Member States to develop the capacity of their health workforce through an assistive products training package. Existing health and rehabilitation personnel will add to their skillset in order to provide a range of basic assistive products at the primary health care or community level, including the training of formal and informal caregivers. For assistive products that require specialist training (for example, prostheses or spectacles for low vision), WHO will work with Member States to explore possibilities for increasing local or regional capacity for specialist training. The assistive products training package will include four essential steps of service provision: assessment, fitting, training, and follow-up and repair.

Provision: Assistive products service delivery model

A network of specialist referral centres connected to primary health care infrastructure is needed for universal access to assistive products, and to ensure early intervention. WHO will support Member States to develop a model service delivery system that is best suited for their specific needs. This will enable people to access assistive products for all their functional needs from a single point. WHO will work with Member States to ensure that the service delivery of assistive products becomes an integral part of the health/social welfare system.

For further details:

The GATE initiative is hosted by the department of essential medicines and products and works across other departments within WHO. For more information:

http://www.who.int/phi/implementation/assistive_technology/en/

Acknowledgements

Thank you to the following organizations, which have contributed to the development of the APL: Abilia, African Federation of Orthopaedic Technicians, Alzheimer's Disease International, Association for the Advancement of Assistive Technology in Europe, Canadian Continence Foundation, CBM, CBR Global Network, CBR India Network, CBR Malaysia Network, China Assistive Devices and Technology Centre for Persons with Disabilities, China Disabled Persons' Federation, Doro, European Assistive Technology Information Network, Fondazione Don Carlo Gnocchi, Foreningen Norges døvblinde, Handicap International, HelpAge International, Hong Kong Society for Rehabilitation, Instituto de Medicina Física e Reabilitação do Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo, International Committee of the Red Cross, International Disability Alliance, International Society of Prosthetics and Orthotics, International Working Group on the Diabetic Foot, Motivation Australia, Mobility India, Motivation UK, National Rehabilitation Centre for Persons with Disabilities Japan, Office of UN Special Envoy, Perkins School for the Blind, Perspektiva, Ottobock, Rehabilitation Engineering and Assistive Technology Society of Korea, Rehabilitation Engineering and Assistive Technology Society of North America, Rehabilitation Engineering Society of Japan, Sanchar, SINTEF, Stellenbosch University, Trinity College Dublin Centre for Global Health, United States Agency for International Development, UCP Wheels for humanity, Uhambo Foundation, University of Colombo, University of Pittsburgh, World Blind Union, World Confederation of Physical Therapy, World Federation of Occupational Therapists, Zuyd University of Applied Sciences.

We also thank the following individuals, who have also contributed to the development of the APL: Martin Aker, Michael Allen, Serap Alsancak, Natasha Altin, Renzo Andrich, Ismet Bajrami, Arjen Bergsma, Girma Bireda Assena, Johan Borg, Penny Bundoc, Tomas Čereška, Gautam Chowdhury, Cristina Maria Correia Cardoso, Jie Dai, Alireza Darvishy, Tulika Das, Luc De Witte, Mareike Decker, Sunil Deepak, Vinicius Delgado Ramos, Biushnu Dhungana, Mukesh Doshi, Pham Dung, Robi Kishore Dutta, Valerio Gower, Edith Hagedoren, Zee-A Han, Kristin Horn, Yunyi Hu, Eldar Husanovic, Erlisi Iljazi, Eduardo Inglez Yamanaka, Cristian Ispas, Vilija Juškienė, Norah Keitany, Nejla Khadri, Mohammed Khadri, Razi Khan, Zia Khan, Phatcharaporn Kongkerd, Anarème Kpandressi, Hung Hei Kwan, Anna Lapinska, Frank Lunde, Maryam Mallick, Katerina Mavrou, Padmani Mendis, Satish Mishra, Inchyuk Moon, Nela Mujacic, Farzaneh Naghshineh, Kozo Nakamura, Yoko Nishimura, Achille Otou-Essono, Timothee Pakouyowou, Jingwen Peng, Tanya Prasolava, Sheila Purves, Malek Qutteina, Ganna Radysh, Uta Roentgen, Joan Ruto, Dovilė Sabaliauskaitė, Kjersti Sagstad, Daniel Scheidegger, Christian Schlierf, Albina Shankar, Dusan Simsik, Anna Söderberg, Terje Sund, Inoue Takenobu, Claude Tardif, Ephrem Taye, Damaijanti Teguh, Outi Töytäri, Patricia Traub, Kai Ming Tsui, Batdulam Tumenbayar, Isabelle Urseau, Miguel Ángel Valero Duboy, Isabel Valle Gallego, Armando Jose Vasquez, Prashannata Wasti, Wang Wei, Petra Winkelmann, Cheryl Ann Xavier, Nan Xia, Noor Yasmin, Diana Zandi, Yan Zhang.

WHO/EMP/PHI/2016.01

Printed by the WHO Document Production Services, Geneva, Switzerland

Financial support: US Agency for International Development

Designed by Inís Communication – www.iniscommuniation.com

Photo credits: Abilia, Cedaf/Guatemala/Patricia Catellanos de Muñoz, WHO/Eduardo Martino, WHO/Pakistan, WHO/Pierre Virot, WHO/SEARO/Vismita Gupta-Smith

The GATE Initiative

Photo: KAPAD KROPP (E. Ohlson Wallin and L. Axelsson) © Scandinavian Orthopaedic Lab.

World Health Organization