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## **Improving access to assistive technology**

### **Report by the Secretariat**

1. This item was proposed for consideration by the Executive Board at its 138th session, but the Officers of the Board decided to defer discussion to allow time for regional consultations and research.<sup>1</sup> The Secretariat subsequently undertook further research and consulted with regional offices. It convened a meeting (Geneva, 21 and 22 March 2016) with representatives from all WHO regions.

#### **THE NEED FOR ASSISTIVE TECHNOLOGY**

2. **Assistive technology**, a subset of health technology, refers to assistive products and related systems and services developed for people to maintain or improve functioning and thereby promote well-being. It enables people with difficulties in functioning to live healthy, productive, independent and dignified lives, participating in education, the labour market and social life. It can reduce the need for formal health and support services, long-term care and the burden on carers. Without assistive technology, people with disabilities and older people and others in need are often excluded, isolated and locked into poverty, and the burden of morbidity and disability increases.

3. **Assistive products** include any external product whose primary purpose is to maintain or improve an individual's functioning and independence and thereby promote his or her well-being. They include wheelchairs, hearing aids, walking frames, spectacles, pill organizers, and artificial legs, as well as assistive information and communication technology such as memory aids, specialized computer hardware and software, augmentative and alternative communication, and customized telephones. Assistive products are essential tools: to compensate for an impairment/a loss of intrinsic capacity, to reduce the consequences of gradual functional decline, to reduce the need for carers, for primary and secondary prevention, and to help rationalize health and welfare costs.

4. WHO estimates that there are more than 1000 million people who would benefit from one or more assistive products. With populations ageing and the prevalence of noncommunicable diseases rising across the world, this number will rise above 2000 million by 2050, with many older people needing two or more products as they age. Those who most need assistive technology include, among others: people with disability, older people, people with noncommunicable diseases, people with mental health conditions including dementia and autism, and people with gradual functional decline.

5. As at 26 April 2016, 163 Member States had ratified the United Nations Convention on the Rights of Persons with Disabilities since its adoption in 2006. Ratification means that they are obliged

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<sup>1</sup> Document EB138/1 (annotated).

to ensure access to assistive technology at an affordable cost and to foster international cooperation in order to achieve this (Articles 4, 20, 26 and 32).

6. In 2015, United Nations Member States endorsed the Sustainable Development Goals. Universal health coverage is central to Goal 3 (Ensure healthy lives and promote well-being for all at all ages), and access to assistive products needs to be an integral part of universal health coverage if the Sustainable Development Goals are to be attained.

7. Today only 1 in 10 people have access to assistive products, owing to a lack of financing, availability, awareness, trained personnel and high costs.<sup>1</sup> For example: 70 million people need a wheelchair but only 5–15% have access to one, and hearing aid production meets only 10% of global need and 3% of the need in low-income countries.<sup>2</sup> Moreover, 200 million people with low vision do not have access to glasses or other low-vision devices.

8. Awareness needs to be raised and sustained about the existence of affordable assistive products and that their use can be a cost-effective intervention to reduce disease and disability burden. Member States need to encourage the integration of assistive products into services at the district, subdistrict and primary health-care levels as a move towards universal health coverage.

9. At the High-level Meeting of the General Assembly on Disability and Development (New York, 23 September 2013), stakeholders requested WHO to develop and coordinate a global initiative to support Member States in realizing their obligations in the Convention on the Rights of Persons with Disabilities towards increasing access to assistive technology. Following a consultative meeting (Geneva, 3 and 4 July 2014), the Secretariat established the Global Cooperation on Assistive Technology in partnership with international organizations, donor agencies, professional organizations, academia and user groups.

10. This Global Cooperation has one goal: to improve access to high-quality, affordable, assistive products globally. It will support the Secretariat's global disability action plan 2014–2021,<sup>3</sup> which inter alia urges Member States to develop policy, financing mechanisms and standards in order to increase access to assistive technology (objective 2). It also plans to support the Secretariat's draft global strategy and plan of action on ageing and health 2016–2020, should it be adopted by the Sixty-ninth World Health Assembly to which it has been submitted for consideration.<sup>4</sup> Strategic objective 2.1 in the action plan calls on Member States inter alia to provide appropriate products to “enable older people to retain the maximum level of control over their lives despite significant loss of capacity”. It expects the Secretariat to provide a list of essential assistive products to support this objective.

11. The goal of the Secretariat's global action plan for the prevention and control of noncommunicable diseases 2013–2020 is to reduce the preventable and avoidable burden of

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<sup>1</sup> Community-based rehabilitation guidelines: health component. Geneva: World Health Organization, 2010 (<http://www.who.int/disabilities/cbr/guidelines/en/>, accessed 14 April 2016).

<sup>2</sup> Deafness and hearing loss: Fact sheet No.300. Geneva: World Health Organization; 2015 (<http://www.who.int/mediacentre/factsheets/fs300/en/>, accessed 21 March 2016).

<sup>3</sup> Adopted in resolution WHA67.7; for text, see document WHA67/2014/REC/1, Annex 3 ([http://apps.who.int/gb/ebwha/pdf\\_files/WHA67-REC1/A67\\_2014\\_REC1-en.pdf#page=112](http://apps.who.int/gb/ebwha/pdf_files/WHA67-REC1/A67_2014_REC1-en.pdf#page=112), accessed 14 April 2016).

<sup>4</sup> Document A69/17.

morbidity, mortality and disability due to noncommunicable disease.<sup>1</sup> Assistive technology plays a key role in the reduction and prevention of morbidity and disability; for example, therapeutic footwear reduces the incidence of foot ulcers, preventing lower limb amputations and thus lowering the significant burden on health systems that these both incur.

12. Assistive technology also contributes to the implementation of WHO's comprehensive mental health action plan 2013–2020,<sup>2</sup> particularly in enabling people to participate fully in society and live in the community.

13. Increasing access to assistive technology will also support the Secretariat's activities in tackling other major contributors to the global burden of disease, including road traffic injuries, violence and conflicts, birth defects, poliomyelitis, leprosy, Buruli ulcer and Zika virus infection, as seen in the recent rise in cases of microcephaly and Guillain–Barré syndrome.

## IMPACT OF ASSISTIVE TECHNOLOGY

14. The impact of assistive technology goes far beyond the benefits of health and well-being to individual users and their families. It also has socioeconomic benefits, by reducing direct health and welfare costs (such as hospital admissions or state benefits), enabling a more productive labour force, and stimulating economic growth. For example:

- proper use of hearing aids by young children leads to improved language skills, without which a person with hearing loss has severely limited opportunities for education and employment;
- appropriate wheelchairs increase access to education and employment, and their use reduces health care costs owing to a reduction in the risk of pressure sores and contractures;<sup>3</sup>
- the risk of falls in older people can be lowered by managing declines in intrinsic capacity, including reduced vision, hearing and mobility.<sup>4</sup>

15. Assistive technology can enable older people to continue to live at home and delay or prevent the need for long-term care.

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<sup>1</sup> See document WHA66/2013/REC/1, Annex 4 ([http://apps.who.int/gb/ebwha/pdf\\_files/WHA66-REC1/WHA66\\_2013\\_REC1\\_complete.pdf#page=132](http://apps.who.int/gb/ebwha/pdf_files/WHA66-REC1/WHA66_2013_REC1_complete.pdf#page=132), accessed 14 April 2016).

<sup>2</sup> Adopted in resolution WHA66.8; for text see document WHA66/2013/REC/1, Annex 3 ([http://apps.who.int/gb/ebwha/pdf\\_files/WHA66-REC1/A66\\_REC1-en.pdf#page=106](http://apps.who.int/gb/ebwha/pdf_files/WHA66-REC1/A66_REC1-en.pdf#page=106), accessed 14 April 2016).

<sup>3</sup> Guidelines on the provision on manual wheelchairs in less resourced settings. Geneva: World Health Organization; 2008 (<http://www.who.int/disabilities/publications/technology/wheelchairguidelines/en/>, accessed 21 March 2016)

<sup>4</sup> World report on ageing and health. Geneva: World Health Organization; 2015 ([http://apps.who.int/iris/bitstream/10665/186463/1/9789240694811\\_eng.pdf?ua=1](http://apps.who.int/iris/bitstream/10665/186463/1/9789240694811_eng.pdf?ua=1), accessed 15 April 2016).

## CHALLENGES IN ACCESS TO ASSISTIVE TECHNOLOGY PROVISION

16. The *World report on disability*<sup>1</sup> provided the evidence to substantiate empirically the unmet need globally for assistive technology of all varieties. Many people have little or no access to basic assistive products such as hearing aids, even in some high-income countries. Where available, an astonishingly high proportion of assistive products are abandoned by users (estimates run as high as 75%).

17. Few countries have a policy or programme on national assistive technology. In many countries, access to assistive products in the public sector is 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 are forced to rely on donations or charitable services – these often comprise delivery of large quantities of low-quality or used products, are often not appropriate for the user or the context, and lack mechanisms for repairs or follow-up.

18. Affordable access to assistive technology needs governmental commitment to adequate and sustained financing as well as efficient procurement of appropriate assistive products and delivery systems.

19. In many high-income countries, people can access assistive technology through health or welfare systems, although services are often stand-alone and fragmentary. People are forced to attend multiple appointments at different locations, a chain of events that is costly and adds to the burden on both carers and health and welfare budgets.

20. A similar scenario is also common in emergency response programmes, where the need for assistive products is high but often ignored. As a consequence, inappropriate products may be provided in haste, leading to secondary health complications and even premature death.

21. The assistive technology industry is currently limited and specialized, primarily serving high-income markets. There is a lack of state funding, user-centred research and development, systems of procurement, quality and safety standards, and context-appropriate product design.

22. Trained health personnel are essential for the proper prescription, fitting, user training and follow-up of assistive products. Without these key steps, assistive products are often of no benefit, abandoned or even cause physical harm, all of which result in extra health-care costs.

## IMPROVING ACCESS: THE SECRETARIAT'S RESPONSE

23. The many years of experience in working with countries in making health products affordable and accessible through innovation, partnership, technology transfer, local production and bulk purchase have shaped the focus of the Global Cooperation on Assistive Technology initiative on four interlinked components (detailed below) within the framework of the universal health coverage.

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<sup>1</sup> World report on disability. Geneva: World Health Organization; 2011. ([http://www.who.int/disabilities/world\\_report/2011/en/](http://www.who.int/disabilities/world_report/2011/en/), accessed 15 April 2016).

**Policy: assistive technology policy framework**

24. The Secretariat is providing support to Member States in developing national assistive technology programmes through initiation of national policy dialogues. An assistive technology policy framework is being prepared to support this process, with best practice examples. The framework will include financing mechanisms, such as health and welfare insurance programmes, to ensure sustainability of service provision and universal access. It will also include guidance on implementation of the priority assistive products list, minimum standards, appropriate training and service provision.

**Products: priority assistive products list**

25. The Secretariat has finalized the compilation of a priority assistive products list.<sup>1</sup> The list is not restrictive, but aims to provide Member States with a model from which to develop a national priority assistive products list according to national need and available resources, modelled along the lines of the WHO Model List of Essential Medicines.

26. The Secretariat will provide support to Member States at their request in exploring possibilities for local and/or regional manufacture and service provision.

**Personnel: assistive technology training package**

27. The Secretariat will provide support to Member States in building the capacity of their health workforces through an assistive technology training package. The aim is to expand the skill set of existing health personnel (including those working in rehabilitation, nurses and community health workers) 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 carers. For assistive products that require specialist training (such as prostheses or spectacles for low vision), the Secretariat will work with Member States at their request to explore possibilities for increasing local and/or regional capacity for specialist training.

**Provision: single-window assistive products service provision**

28. A network of specialist referral centres connected to the primary health-care infrastructure is needed to ensure universal access and early intervention. The Secretariat will provide support to Member States at their request for developing an assistive products service provision model that is best suited for their specific needs. Such a tailored model will enable people to access assistive products for all their functional needs, preferably from a single point. The Secretariat will also work with Member States to ensure that the assistive products service provision model is integrated into the health system.

**ACTION BY THE EXECUTIVE BOARD**

29. The Board is invited to note the report.

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<sup>1</sup> To be launched during the Sixty-ninth World Health Assembly.