



How can optimized service and distribution improve wheelchair use?

Challenge: Wheelchairs are necessary, but remain unused

Global guidelines for the provision of wheelchairs in low-resource settings have been in place since 2008, and many individuals receive their wheelchairs free of cost through a variety of wheelchair distribution programs. Still, many wheelchair users report receiving but not using their chair. When a necessary mobility-enhancing device is available and free, what else can be done to improve its use?

Accelovate is a five-year, United States Agency for International Development (USAID)-funded program charged to increase availability of and access to lifesaving technologies and commodities in low-resource settings. In keeping with its mission, Accelovate addressed the challenge of ensuring the greatest possible independence for persons with disabilities by increasing the availability and uptake of appropriate wheelchair technologies in low- and middle-income countries.

Challenge Background: Wheelchair programs address both distribution and service delivery

According to World Health Organization (WHO) estimates, 65 million people worldwide need a wheelchair.¹ Yet less than 5% have a properly fitted wheelchair,² and, in one study, 57.4% of distributed wheelchairs went unused.³

Distribution programs are prevalent, and free wheelchair distribution programs have been established across the globe to bridge supply gaps and ensure widespread access to wheelchairs among populations that require them the most. In addition, an eight-step service model (including assessment, fitting, user training, and follow-up) has been developed by WHO.⁴ Little is known about the association between the receipt of these services and wheelchair uptake. Optimizing distribution models may be critical in protecting investments and promoting independent navigation through daily life.

When a needed device is available and free, what can be done to increase its use?

Less than 5% of people who need a wheelchair worldwide have a properly fitted one, and 57% of distributed wheelchairs remain unused.



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innovating to save lives
Jhpiego
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Accelovate's Solution: Examining associations between wheelchair services and wheelchair utilization

Because access to properly fitted wheelchairs is low and wheelchair abandonment is high, advocates for comprehensive wheelchair provision need data to promote an optimal distribution model.

Therefore, Accelovate conducted a research study to investigate the association between receipt of wheelchair services and wheelchair utilization in low-resource settings. In collaboration with local wheelchair sector experts, data collection was undertaken in 2015 in and around Nairobi, Kenya, and Manila, Philippines. More than 800 manual, basic wheelchair users completed a quantitative survey. Forty-eight also participated in an in-depth interview.

Findings suggest that service provision may be critical to achieving positive outcomes and protecting wheelchair investments. The importance of (1) training and (2) fitting while the wheelchair user propels emerged in both countries. Study findings were presented to country stakeholders in August 2015. In these meetings, stakeholders developed recommendations for advocates, governments, providers and planners of wheelchair services, funders, researchers, and others. A full report on the research study and its findings is available at <https://www.jhpiego.org/accelovate>.

Accelovate has also produced a desk review compiling known information on the outcomes associated with wheelchair receipt and a set of statistics on disability and wheelchair distribution across a sample of low-resource settings, available at <http://www.jhpiego.org/accelovate>.

Results Achieved

Our desk review and statistics on disability and wheelchair distribution in low-resource settings stand as resources for advocacy and service planning. Forthcoming study findings will be available on the Accelovate Web page to inform wheelchair distribution models.

The research study supports the provision of wheelchairs alongside services. Findings establish a platform to develop and test service model innovations.

Next Steps: Building on Accelovate's achievements

Accelovate continues to **work with strategic partners**; these partners include but are not limited to: USAID, national governments, universities, wheelchair service providers, nongovernmental organizations, organizations of disabled persons, innovators, and implementing partners.

Accelovate is collecting data to investigate the association between wheelchair services and wheelchair use in urban and peri-urban areas of Kenya and in Greater Manila, Philippines.



Accelovate sent surveyors into the community to conduct its research study.



¹ World Health Organization. 2008. *Guidelines on the Provision of Manual Wheelchairs in Less Resourced Settings*. Retrieved from <http://www.who.int/disabilities/publications/technology/wheelchairguidelines/en/>.

² World Health Organization. 2013. *Wheelchair Service Training Package: Reference Manual for Participants, Intermediate Level*. Retrieved from http://apps.who.int/iris/bitstream/10665/85776/4/9789241505765_eng_refmanual.pdf.

³ Mukherjee G and Samanta A. 2005. Wheelchair charity: A useless benevolence in community-based rehabilitation. *Disability and Rehabilitation* 27: 591–596. doi:10.1080/09638280400018387.

⁴ World Health Organization. 2008. *Guidelines on the Provision of Manual Wheelchairs in Less Resourced Settings*. Retrieved from <http://www.who.int/disabilities/publications/technology/wheelchairguidelines/en/>.

Accelovate—a Partnership in Accelerated Global Health Innovation

Accelovate is a global program dedicated to increasing the availability and use of lifesaving innovations for low-resource settings. Led by Jhpiego, the Accelovate program began in 2011 as a five-year, United States Agency for International Development (USAID)-funded program under the Technologies for Health (T4H) grant.

Also available from Accelovate:



Postpartum
Hemorrhage



Rehabilitative
Medicine



Pre-eclampsia
& Eclampsia



Male
Circumcision

Design Challenges promote the development of innovative solutions where appropriate technology is lacking

Solution Landscapes assess what solutions exist

Value Propositions assess the benefits and drawbacks of an array of solutions for our context

Business Cases assess manufacturability and commercial potential

Market Readiness Assessments evaluate a selected technology/solution for market-level readiness factors

Briefs describe technology access and utilization challenges in a topical area and outline Accelovate's approach

Excel Tools present raw data that implementers may develop for programming and advocacy purposes

Literature Reviews review secondary data, usually to understand a bottleneck

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Accelovate invites innovators, advocates, funders, and programmers addressing the procurement and use of maternal health drugs and technologies in low-resource settings to share our tools and develop appropriate models to promote wheelchair availability and use. To discuss **partnership opportunities around new solutions**, contact us at accelovate@jhpiego.org