Community Eye Health Journal
VOLUME 38 • NUMBER 129 • 2026
South Asia Edition

Near-vision spectacles can have a life-changing impact. INDIA

Up close and visible: correcting global presbyopia

Few global health challenges can be solved within a decade. We believe presbyopia – age-related near-vision loss – can be.

Abigail Steinberg
Executive Director: Livelihood Impact Fund, Denver, USA.

Patricia Elaine Freels
Communications: Livelihood Impact Fund, Istanbul, Turkey.

Elanor Watts
Research Consultant: Peek Vision, Technical Advisor: LIF Eyeglasses Initiative, and Ophthalmology Resident: NHS Scotland, Glasgow, UK.

Presbyopia is an age-related reduction in the eye's ability to focus on near objects (accommodation), and it affects nearly everyone aged 40 years or above. Global estimates are continually being updated;[1] however, according to the World Health Organization,1.8 billion people have presbyopia, and nearly half of them (as many as 826 million people) do not have access to optical correction (**bit.ly/wrvision**).

The benefits of near-vision correction

Historically, eye care services have prioritised distance vision. However, for many of us, near vision may be more important, allowing us to read or write, use our phones, perform self-care tasks like shaving and putting on make-up, or carry out labour-specific tasks such as farming, sewing, carpentry, repair work, or even eye surgery. Without good near vision, life can become very challenging. Fortunately, ready-made near-vision spectacles are a simple and accessible intervention that cost less than USD 1 to manufacture and can dramatically improve vision.

Restored near vision can be transformative. There are benefits to quality of life, adult literacy, autonomy, productivity, income, and empowerment. When a person with presbyopia receives a pair of near-vision spectacles, their ability to take on important tasks again or to learn new skills contributes

About this issue

Of the 1.8 billion people worldwide estimated to have presbyopia, nearly half (as many as 826 million) do not have access to optical correction. Ready-made near-vision spectacles are a simple and accessible intervention that cost less than USD1 to manufacture and can dramatically improve vision. However, access remains limited, especially in low- and middle-income countries. In this issue, we show how presbyopia can be addressed in the next decade, leading to improved quality of life, earning capacity, and national productivity gains.

Contents

to an improved sense of dignity, confidence, and self-worth. In one study, women self-reported that near-vision spectacles improved their economic, educational, political, and psychological empowerment.[2] Presbyopia correction is also a gender equity issue: women comprise the majority of older adults globally and are disproportionately represented in informal work that depends on near vision, yet their coverage is lower than men's.

Studies show that providing spectacles to working people can increase overall productivity by nearly 22%,[2] rising to 32% in workers over the age of 50 years.[3] In some settings, this can boost income by up to 33%.[4] Near-vision impairment from uncorrected or undercorrected presbyopia contributes to an estimated annual productivity loss of USD 25 billion.[5] Addressing presbyopia with low-cost interventions like near-vision spectacles could yield USD 1.05 trillion in productivity gains by 2050.[6] These larger-scale economic benefits can prove effective in persuading governments to make changes, and to improve access on a wider scale.

Near vision is now recognised as vital by the World Health Organization (WHO), as set out on pp. 4–5 in this issue. Near vision is included in effective refractive error coverage (near eREC), describing the proportion of those whose near refractive need is met (with good resultant visual acuity). eREC was recently made a WHO Global Health Observatory marker of health coverage. WHO has also launched the SPECS 2030 initiative, aiming to provide high quality, affordable, and people-centred refractive error services to everyone who would benefit. Read more in our previous issue on refractive error: **bit.ly/cehj785**.

However, access to near-vision spectacles remains limited, especially in low- and middle-income countries. This could be for a number of reasons, including limited access to eye health services, regulatory barriers, social or cultural norms (i.e., around ageing), lack of awareness of presbyopia, or competition with daily survival needs, among others. Removing regulatory barriers, strengthening supply chains, and increasing access points are all essential to support the normalisation and adoption of near-vision spectacles at scale. Philanthropy can play a massive role in supporting this push, as noted on p. 14.

Eye care can struggle to compete for resources within health care, but when viewed through the lenses of development, education, and employment, the investment case for vision is undeniable, especially for a condition that can be managed as affordably as

Community Eye Health Journal
VOLUME 38 • NUMBER 129• 2026
South Asia Edition

INTERNATIONAL CENTRE FOR EYE HEALTH

LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

IAPB

presbyopia. Presbyopia can also be an entry point for strengthening refractive services, primary health care, healthy aging programmes, universal health care, or community health strategies.

Because near-vision spectacles are safe, even people without easy or affordable access to qualified eye care professionals can – and should – be given access to near-vision correction, whether via a primary or community health worker (pp. 6–7), self-selected spectacles purchased over the counter (pp. 8–9) or an innovative distribution strategy (pp. 10–12). If a person finds that their vision does not improve with near-vision spectacles, or they have any other eye health problems, they should be encouraged and supported to visit the nearest eye clinic.

The global burden of uncorrected presbyopia and its social and economic implications on societies demand our attention. Correcting presbyopia may be the most achievable global eye health win of our generation.

What can we do about this?

If you're an eye care worker wanting to give your patients access to near-vision spectacles:

- Remember to check near visual acuity. Some testing options are listed under Useful Resources (right).
- When taking a history, don't skip over presbyopia symptoms or assume the patient already has near-vision spectacles.
- Find out where near-vision spectacles are currently available in your area and consider directing patients to these sources, or collaborate to bring spectacle provision into your workplace.
- Identify those patients who may not be suitable for ready-made spectacles (such as patients with myopia or significant astigmatism), and direct them to optometrists for formal refraction.
- If awareness is the barrier, consider simple awareness raising (such as with the posters included in this issue) or a more intensive campaign.
- Contact your country's national eye care coordinator or do an internet search to find out what projects are running in your country or to ask where you can find affordable near-vision spectacles.

If you're a policy maker or policy advisor:

- Support policies that reduce barriers to importing and providing near-vision spectacles, e.g. reducing tariffs.
- Use the WHO Refractive error situational analysis tool to integrate presbyopia into your national eye care strategies (for more, see article on pp. 4–5).
- Support screening and distribution through multiple channels, to ensure everyone has access: over the counter, via existing health channels (e.g. community and primary health workers), and through innovative channels.
- Reach out to and collaborate with organisations and partners already working in your country.
- Unlock funding to support scalable approaches (see philanthropy article on p. 14).
- Consider presbyopia a stepping stone to more comprehensive eye care. Alongside the relatively straightforward task of providing presbyopia correction, refer people for additional care, which improves access to effective distance refractive correction, cataract surgery, and treatment for more complex eye problems.

Useful resources

- **WHO Learning on TAP** (bit.ly/4rqkYcu) and WHO's **Vision and eye screening implementation handbook** (bit.ly/49FemAs) make training in vision and eye screening, and dispensing ready-made near-vision spectacles, widely accessible.
- The **WHOeyes app** (bit.ly/4ohzeBu) helps raise awareness about presbyopia and supports efficient screening when paired with an eye health screen.
- **Peek Acuity** (bit.ly/cehj_5DVQ) tools can be used to screen for presbyopia and guide provision of near-vision spectacles.
- **RestoringVision's** partner resources (restoringvision.org/resources) include a tumbling E chart and tips for dispensing; it can be used with their 8-minute training video on dispensing near-vision spectacles (bit.ly/RVnvtraining).

References

1 Bastawrous A, Kassalow J, Watts E. Global uncorrected refractive error and presbyopia: the size of the problem. *Community Eye Health*. 2024;37(122):3-4. **cehjournal.org/articles/10.56920/cehj.784**

2 Omar F, Othman OJ, Yong AC, et al. Correcting near vision impairment and women's empowerment: a before-after mixed-methods study among older Zanzibari craftswomen. *BMJ Open*. 2024;14(11):e086624. Published 2024 Nov 14. doi:**10.1136/bmjopen-2024-086624**

3 Reddy PA, Congdon N, MacKenzie G, et al. Effect of providing near glasses on productivity among rural Indian tea workers with presbyopia (PROSPER): a randomised trial. Lancet Glob Health. 2018;6(9):e1019-e1027. doi:**10.1016/S2214-109X(18)30329-2**

4 Sehrin F, Jin L, Naher K, Das NC, Chan VF, Li DF, et al. (2024) The effect on income of providing near vision correction to workers in Bangladesh: The THRIVE (Tradespeople and Hand-workers Rural Initiative for a Vision-enhanced Economy) randomized controlled trial. PLoS ONE 19(4): e0296115. doi:**10.1371/journal.pone.0296115**

5 Frick KD, Joy SM, Wilson DA, Naidoo KS, Holden BA. The Global Burden of Potential Productivity Loss from Uncorrected Presbyopia. Ophthalmology. 2015;122(8):1706-10. doi:**10.1016/j.ophtha.2015.04.014**

6 Bastawrous A, Suni AV. Thirty Year Projected Magnitude (to 2050) of Near and Distance Vision Impairment and the Economic Impact if Existing Solutions are Implemented Globally. Ophthalmic Epidemiol. 2020;27(2):115-120. doi:**10.1080/09286586.2019.1700532**

Subscribe
Visit https://bit.ly/3uwMvf5

Address for subscriptions
Community Eye Health Journal South Asia Edition,
Pragyaan Sustainable Health Outcomes (PRASHO),
Floor 2, Kapil Kavuri Hub, no. 144
Survey 37, Financial District,
Nanakramguda, Telangana 500032.
Email editor@cehjsouthasia.org

Correspondence articles
We accept submissions of 800 words about readers' experiences in eye health. Contact:
editor@cehjsouthasia.org

Published by the International Centre for Eye Health, London School of Hygiene & Tropical Medicine.

ISSN 0953-6833

The *Community Eye Health Journal* is supported by:

cbm christian blind mission
Fight for Sight The Netherlands
iTi International Trachoma Initiative
orbis
seva.org
The Fred Hollows Foundation www.hollows.org

South Asia Edition supported by:
Livelihood Impact Fund
Meaningfully and durably improving the lives of the global poor.
Sightsavers India
TIJSSEN FOUNDATION
Mission for Vision

Expanding access to near-vision correction services: WHO targets, tools, and initiatives

Mitasha Yu
Consultant: Vision and Eye Care Programme, Department of Noncommunicable Diseases, Rehabilitation and Disability, World Health Organization, Geneva, Switzerland.

Stuart Keel
Technical Officer: Vision and Eye Care Programme, Department of Noncommunicable Diseases, Rehabilitation and Disability, World Health Organization, Geneva, Switzerland.

Millions of people can regain their near vision if they are given access to spectacles for presbyopia. Here is what the World Health Organization recommends.

Vision screening before near-vision spectacles are dispensed. INDIA

In 2021, the World Health Assembly endorsed the very first global target for effective refractive error coverage (see panel). The target recognises the major impact of near-vision impairment on daily life and productivity[1,2] and includes spectacle coverage for both distance refractive error and near-vision impairment in older adults (presbyopia).

Reaching the 2030 global target: what are the challenges?

Despite presbyopia being so common, access to affordable and good-quality near-vision spectacles remains limited. Current policies and workforce models in many countries often prevent over-the-counter provision of near-vision spectacles, and/or prevent community and primary health workers from dispensing these spectacles, even when adequate training and supervision could enable them to do so safely. In rural and remote areas, supply chains tend to be weak and spectacles are often unavailable. Cultural barriers also play a role, with many people viewing presbyopia as a natural part of ageing. In addition, there is a scarcity of data on effective refractive error coverage for near vision, making it difficult to monitor progress and undertake evidence-based planning.

Global target for effective refractive error coverage (eREC)

Target. A 40 percentage point increase in **eREC** by 2030. Countries with a baseline effective coverage rate of 60.0% or higher should strive for universal coverage.

Definition of eREC. The proportion of people in need of refractive error services who have received services (i.e. spectacles, contact lenses, or refractive surgery) and have a resultant good-quality outcome, relative to the number of people in need of refractive error services.

- For **distance vision**, a 'good quality outcome' is defined as presenting visual acuity (PVA) of ≥ 6/12 (known as 'distance eREC')
- For **near vision**, a 'good quality outcome' is defined as PVA ≥ N6 (known as 'near eREC')

Definition of presenting visual acuity (PVA). If spectacles or contact lenses are worn to the assessment, visual acuity is measured with the person wearing them.

Models for the provision of near-vision spectacles

Spectacles are a simple solution to address presbyopia. Evidence shows that, for the majority of adults, ready-made near-vision spectacles are both effective and safe, and their simplicity means that most people can benefit immediately, without the need for complex equipment or highly specialised personnel.[3] To meet the substantial need in low- and middle-income countries, it is crucial to make ready-made near-vision spectacles accessible as close as possible to people's homes.[4]

While countries can take many approaches to improving access, two key steps with the greatest potential impact are highlighted below.

1. Over-the-counter access

Over-the-counter provision of ready-made near-vision spectacles is one of the simplest and most effective ways to address presbyopia.[5,6] In many high-income countries, including Australia, the USA, and the UK, provision of these spectacles without a regulated prescription has been permitted for decades. They are considered low-risk medical devices and are designed for safe self-selection, with evidence showing that most users can choose the correct power and that incorrect choices pose no health risk. Successful models from countries such as India, Brazil, Sweden, and South Africa demonstrate the feasibility of this approach.

Key considerations when planning for over-the-counter access in low- and middle-income countries include the following.

- National strategies should align over-the-counter provision with broader health system planning in eye care, including the workforce, delivery models, and supply chains. In high-income settings, over-the-counter near-vision spectacles are supported by readily available comprehensive eye care services. Replicating this in low-resource settings requires careful planning to ensure referral pathways are in place for individuals whose vision does not improve with these devices.
- A broader range of accessible providers, such as pharmacists and trained retail personnel, can support over-the-counter provision by offering vision and eye health screening and helping people choose appropriate strengths, supported by clear user instructions and health education materials that promote safe self-selection and indicate when further eye examination is needed.
- Safeguards are needed to ensure product quality standards are met, ensuring that ready-made near-vision spectacles are both safe and effective.
- Affordability, and the long-term sustainability of supplying good-quality ready-made near-vision spectacles, are essential so that they remain reliably available.
- Equity considerations are also critical. Women, people in rural areas, and marginalised groups often face the greatest barriers to access.
- Raising community awareness about near-vision impairment and the availability of ready-made near-vision spectacles is essential, helping to create and sustain demand for services.

2. Integration within primary and community health care

When integrating eye care within primary and community health settings, WHO recommends that, at a minimum, distance and near-vision screening and an external eye health screen is undertaken. If the distance-vision and eye health screen are passed, and only the near-vision screen is failed, near-vision spectacles can be trialled and dispensed. If there are any issues with their distance vision or eye health, or if near-vision spectacles do not improve their near vision, the person should be referred for a full eye examination. The full protocol is given in the **WHO Vision and eye health screening implementation handbook**.[7] WHO notes that community health workers and primary health workers, as part of an integrated, competency-based refractive error team, can be safely trained to screen for near-vision impairment and provide ready-made near-vision spectacles.[8,9] It is also important to address any concerns from eye care personnel who may feel uncertain about non-specialised workers, such as community and primary health workers, taking on these tasks. Clear communication can help show that this approach supports the whole team, improves access to care, and allows eye care personnel to focus on patients with more complex eye care needs.

"Presbyopia is universal, predictable, and correctable. The solutions are simple, scalable, and affordable."

Technical resources and normative work

To support countries addressing refractive error, including presbyopia, WHO has developed a range of products and tools:

- The WHO **Summary guides on quality standards for spectacles** (**bit.ly/4rf2hip**) help governments and key stakeholders to procure safe and effective products.
- The WHO **Eye care competency framework** (**bit.ly/483EzHL**), and the **Competency-based refractive error teams** resource (**bit.ly/3Xet7CT**), show that community health workers and primary care workers can be safely trained to screen and dispense for presbyopia.
- The WHO **Refractive error situational analysis tool** (**bit.ly/4oXnsP1**) supports countries to integrate presbyopia into national eye care strategies.
- The WHO **Learning on TAP** (**bit.ly/4rqkYcu**) resource, and the **Vision and eye screening implementation handbook** (**bit.ly/49FemAs**), make training in vision and eye screening, and dispensing ready-made near-vision spectacles, widely accessible.
- The **WHOeyes app** (**bit.ly/4ohzeBu**) helps raise awareness about presbyopia and supports efficient screening when paired with an eye health screen.

Conclusion

Presbyopia is universal, predictable, and correctable. The solutions are simple, scalable, and affordable. Achieving equity in access requires supportive policies, trained personnel, reliable supply chains, and strong partnerships. Provision of near-vision spectacles is an integral part of the WHO SPECS 2030 initiative. If countries adopt inclusive policies, millions of people could regain their near vision, thus unlocking opportunities for a better quality of life and economic prosperity.

Relevant WHO initiatives and resources

SPECS 2030 initiative: At a strategic level, presbyopia is embedded in the **WHO SPECS 2030 initiative** (**bit.ly/4ohy2hu**), which provides a global framework for improving refractive error coverage. Within this, presbyopia is seen as a potential 'quick win' to help accelerate progress toward the global eREC targets. This is because ready-made near-vision spectacles have lower product costs, require only basic workforce competencies, and can be supplied through simpler procurement processes using standard strengths that can be stocked in bulk. This creates a major opportunity to integrate services within community and primary care settings.

References

1 Goertz AD, Stewart WC, Burns WR, Stewart JA, Nelson LA. Review of the impact of presbyopia on quality of life in the developing and developed world. Acta Ophthalmol. 2014;92(6):497-500. doi:**10.1111/aos.12308**

2 Frick KD, Joy SM, Wilson DA, Naidoo KS, Holden BA. The Global Burden of Potential Productivity Loss from Uncorrected Presbyopia. Ophthalmology. 2015;122(8):1706-1710. doi:**10.1016/j.ophtha.2015.04.014**

3 Chan VF, Wright DM, Mavi S, et al. Modelling ready-made spectacle coverage for children and adults using a large global database. Br J Ophthalmol. 2023;107(12):1793-1797. doi:**10.1136/bjo-2022-321737**

4 Munis P, Kassalow J, Lorey M. Presbyopia: addressing an urgent global need. Community Eye Health. 2024;37(122):10–1 **bit.ly/cehj787**

5 Katz JA, Karpecki PM, Dorca A, et al. Presbyopia - A Review of Current Treatment Options and Emerging Therapies. Clin Ophthalmol. 2021;15:2167-2178. doi:**10.2147/OPTH.S259011**

6 Chan VF, MacKenzie GE, Kassalow J, Gudwin E, Congdon N. Impact of Presbyopia and Its Correction in Low- and Middle-Income Countries. Asia Pac J Ophthalmol (Phila). 2018;7(6):370-374. doi:**10.22608/APO.2018449**

7 World Health Organization. Vision and eye screening implementation handbook Geneva: World Health Organization; 2023. **bit.ly/fh4Y6ad**

8 World Health Organization. Eye care competency framework World Health Organization; 2022. **bit.ly/4pETUca**

9 World Health Organization. Competency-based refractive error teams. Geneva: World Health Organization; 2025. **bit.ly/4rctZ6U**

Integrating presbyopia services into community and primary health care

Olufunke Fasawe
Vice President, Integration and Country Director, Nigeria: Clinton Health Access Initiative, Abuja, Nigeria.

Amit Gupta
COO: The/Nudge Institute, Bangalore, India.

Julius Mbeya
Co-CEO: Lwala Community Alliance, Rongo, Kenya.

Abraham Zerihun Megentta
Country Director, Ethiopia: Last Mile Health. Addis Ababa, Ethiopia.

Oteri Okolo
National Eye Care Coordinator and Director: National Eye Health Programme, Nigeria.

Patricia Elaine Freels
Communications: Livelihood Impact Fund, Istanbul, Turkey.

Elanor Watts
Research Consultant: Peek Vision, Technical Advisor: LIF Eyeglasses Initiative, and Ophthalmology Resident: NHS Scotland, Glasgow, UK.

Community and primary health workers are a helpful gateway to near-vision care.

Clear near vision restores more than sight—it restores routine, confidence, and connection. INDIA

The World Health Organization (WHO) states that community health workers and primary health workers can be safely trained to screen for presbyopia and to distribute ready-made near-vision spectacles (see article on pp. 4–5).

Globally, approximately 4.7 million community health workers in around 100 countries give people access to life-saving information, testing, and medications.[1] They are trained to travel to where people live and work, which allows them to provide care to communities in remote or hard-to-reach areas, also known as the 'last mile.' In contrast, primary health workers are normally based at local health centres, where they provide essential health care services to the people who travel to them from nearby communities.

WHO recommends that both community and primary health workers be included in an integrated, competency-based refractive error team (Figure 1).[2] Community health workers can be trained to educate communities about presbyopia, carry out near-vision screening, distribute near-vision spectacles, and refer those with other eye health needs to the relevant service or level in the health system (Figure 1). Primary health care workers can conduct distance and near visual acuity tests to detect people needing referrals and provide ready-made near-vision spectacles for those who only need near-vision correction. This approach improves access to eye care, and it frees other members of the refractive error team to focus on patients with more complex eye conditions.

As trusted community members, community and primary health workers are a helpful gateway to eye health care. In countries where there is little or no awareness of presbyopia, it is helpful for a trusted person within the community to provide people with their first pair of spectacles.

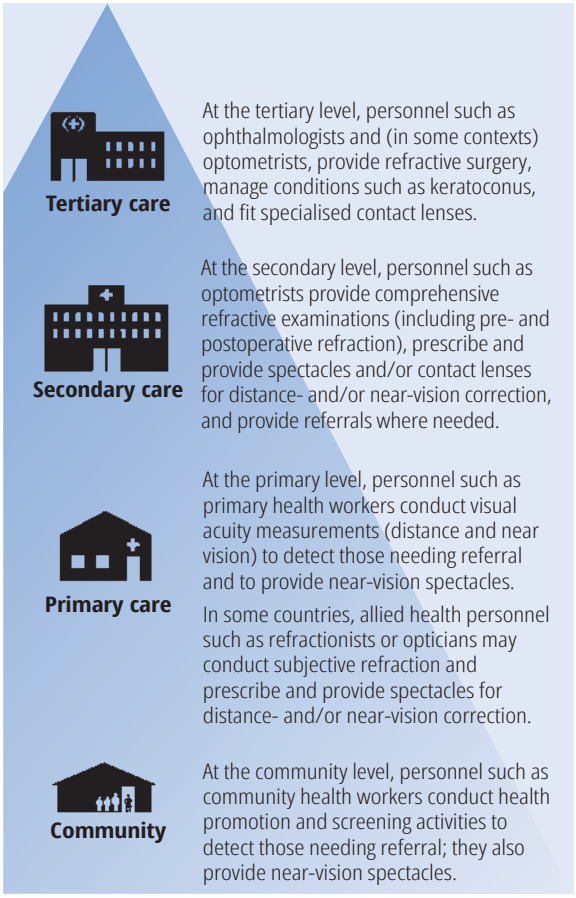
Health care workers themselves also need access to near-vision spectacles,[3,4] as there are many skills which require near vision, such as recording or reviewing data on patient health records, providing immunisations, reading blood pressure monitors and thermometers, and reading medication labels. Some tasks, such as suturing, cannot be done safely without good near vision.

Several countries have already started projects that support community and primary health workers to provide eye screening for presbyopia and distribute near-vision spectacles.

Ethiopia

In Ethiopia, community health workers, known nationally as health extension workers, are being trained to provide eye screening and near-vision spectacles as part of a new non-communicable disease training package. Following a successful pilot in 12 districts, in which over

Figure 1 Refractive error personnel integrated across all levels of the health system.



Source: WHO, Competency-based refractive error teams.[2]

A woman running a small business can use her cellphone after receiving near-vision spectacles. ETHIOPIA

650 health extension workers were trained, the training is being scaled nationally. The distribution of near-vision spectacles is currently being expanded to reach hundreds of thousands more patients in areas that are often the hardest to reach.

"The key thing has been integration. This is not a standalone training, it's integrated with several other components, and this has multiple benefits. One is efficiency. You're not calling on health extension workers only to tell them about presbyopia, but also non-communicable diseases overall."
– Abraham Zerihun Megentta, Country Director, Ethiopia for Last Mile Health

Kenya

Lwala is a Kenyan-led organisation training and supporting community health workers to dispense near-vision spectacles. With the support of the Livelihood Impact Fund, Lwala led a successful pilot project in Migori county, during which 280 primary health care workers and 269 community health worker supervisors were trained to screen for presbyopia. In turn, they trained an additional 3,214 community health workers. As a result of this project, a total of 53,000 people in the county were screened and nearly 50,000 near-vision spectacles were distributed. Lwala will now be scaling up this work in additional counties within Kenya.

India

India has 1 million Accredited Social Health Activists (ASHAs) and approximately 178,000 functional Ayush Arogya Mandirs (primary health workers) who are embedded in villages in India. Integrating presbyopia screening and spectacle distribution into their workflows is low cost and sustainable. In addition, India's 9 million self-help groups, representing over 100 million members, provide a powerful grassroots network. The/Nudge Institute is piloting near-vision spectacle distribution through these health and development channels to extend access to near-vision care across the country (see the article on p. 13 in this issue).

Nigeria

The government of Nigeria has launched a new presidential initiative: the Effective Spectacle Coverage Initiative Nigeria. The project is led by Dr Oteri Okolo, National Coordinator of the National Eye, Ear and Sensory Functions Health Programme of Nigeria, and is implemented in partnership with the Livelihood Impact Fund, Clinton Health Access Initiative Nigeria, Christian Health Association of Nigeria, Founders Pledge, and RestoringVision. It aims to reach 5 million people with near-vision spectacles through primary health centres and community outreach efforts. In the last year, over 1.3 million Nigerians received free reading spectacles, and approximately 1.5 million people across 16 states received vision screening. Two-thirds of these beneficiaries received their first-ever pair of spectacles, reaching those historically excluded from the eye care sector. The programme has trained over 2,200 primary health care workers, with plans to expand in its second year. Integrating primary eye care into the primary health care system in this way means that – once the initiative ends – the primary health care system can remain a source of near-vision spectacles, thereby improving the initiative's long-term sustainability.

Fortunately, ready-made near-vision spectacles are safe in adults: an incorrect dioptre can result in eye strain or a headache, but this prompts the wearer to remove them and will not cause permanent damage.

Given both the safety and benefits of near-vision spectacles, we hope that – by integrating near-vision testing and spectacle provision in the work of community and primary health care workers – it will be possible to reach millions of people every year. Moreover, by giving health workers the near-vision spectacles they need, we aim to improve the accuracy and effectiveness of the vital work they do.

Training for community and primary health workers

There are various approaches to training community and primary health care workers in ways that are both scalable and highly effective.

Training sessions range from a few hours to multiple days. For example:

- Clinton Health Access Initiative in Nigeria found that a 1–2 hour training session on presbyopia and near-vision spectacles, as part of the National Primary Eye Care Training Manual (the local version of the WHO AFRO Primary Eye Care package) was sufficient, particularly when complemented by supportive supervision.
- RestoringVision created an eight-minute training video (**bit.ly/RVnvtraining**) on the provision of spectacles. In many programmes, refresher training is also offered.
- WHO provides an open-access learning course, "Learning on TAP" (Training in Assistive Products) for primary health care and community workers specifically for vision screening. This course takes 60 to 90 minutes to complete and aims to get health care workers up to speed and ready for in-person practice in the workforce. See **bit.ly/WHOtapVision**
- Last Mile Health in Ethiopia embedded near-vision training directly into the national non-communicable disease training module for community health workers, in partnership with the Ethiopia Ministry of Health. Community health workers there showed an impressive rate of skill uptake, with 80% passing the post-training assessment compared to 10% pre-training. See more here: **bit.ly/LastMileH**
- Digital tools developed by Peek Vision (**peekvision.org**) can walk a community or primary health worker through the process of testing near visual acuity and then providing ready-made near-vision spectacles, starting with an appropriate dioptre based on the person's age and near acuity, and then supporting a trial of different powers to find the preferred, effective power.
- Simple posters (included in this issue), placed in primary health care settings, can remind health care workers to test for presbyopia and provide near-vision spectacles.

References

1 World Health Organization (WHO). Global Health Observatory. Indicators: Community Health Workers. **bit.ly/4qmNFGm**

2 Competency-based refractive error teams. Geneva: World Health Organization; 2025. Licence: CC BY-NC-SA 3.0 IGO. **bit.ly/who-3bB**

3 Eichenberger M, Perrin P, Sieber KR, Lussi A. Near visual acuity of dental hygienists with and without magnification. Int J Dent Hyg. 2018;16(3):357-361. doi:**10.1111/idh.12341**

4 Ashaye AO, Asuzu MC. Ocular findings seen among the staff of an institution in Lagos, Nigeria. West Afr J Med. 2005;24(2):96-99. doi:**10.4314/wajm.v24i2.28175**

Over-the-counter provision of near-vision spectacles: opportunities to grow

Shadrack Muma
Principal Investigator: OneSight EssilorLuxottica Foundation and Programme Coordinator: Let Our Children See, Kisumu, Kenya.

Kovin Naidoo
Global Head: Advocacy and Partnerships: OneSight EssilorLuxottica Foundation, Durban, South Africa.

May Ho
Optometry and Primary Care Adviser: The Fred Hollows Foundation, Melbourne, Australia.

Priya Morjaria
Assistant Professor: London School of Hygiene & Tropical Medicine and Head of Global Programme Development: Peek Vision, UK.

Eye care professionals should be at the forefront of strengthening over-the-counter provision so that we can scale up service provision for all, while improving access to specialist services for those who need them.

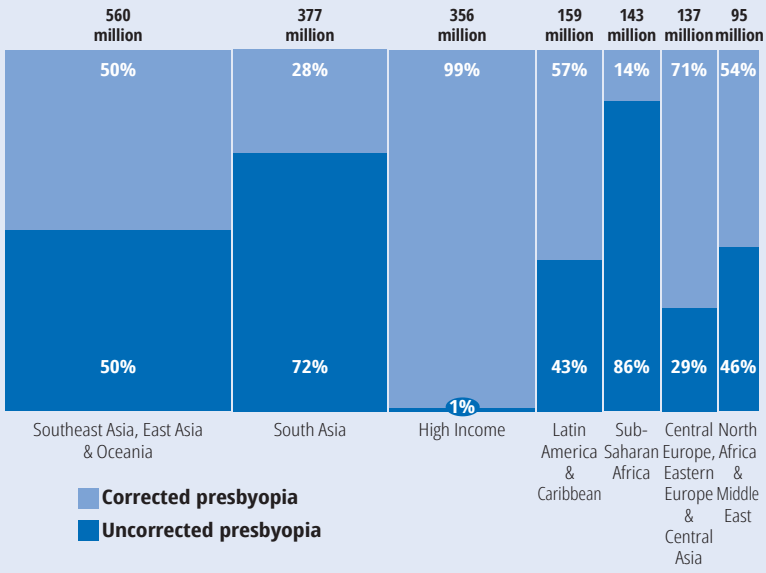
Presbyopia is an age-related decline in near vision caused by reduced accommodation of the eye. It affects hundreds of millions of people worldwide and is among the leading causes of near-vision impairment, contributing to an estimated annual productivity loss of USD 25 billion.[1]

Several studies have highlighted that ready-made near-vision spectacles – pre-made spectacles (often mass-produced) for presbyopia that have the same spherical power in each eye – can effectively provide correction for 44–60% of adults with near-vision impairment.[2] They are considered low-risk medical devices and are designed for safe self-selection, with evidence showing that most users can choose the correct power. They are also inexpensive to manufacture and distribute, often costing just a fraction of the price of customised prescription spectacles.

As mentioned on p. 2, providing ready-made near-vision spectacles can increase productivity by around 22% and boost income by up to 33%. Yet, access to this simple, low-cost intervention remains limited, especially in low- and middle-income countries – where up to 86% of the population have presbyopia that remains uncorrected, compared to just 1% in high-income countries (Figure 1).[4]

Because the need is so great – and correction (using ready-made near-vision spectacles) is simple, safe, and effective for the vast majority of people – the World Health Organization (WHO) has recommended that presbyopia can also be addressed by non-eye care professionals (see article on p. 4 in this issue).

Figure 1 Number of people* estimated to have presbyopia by region (in millions), with percentages estimated to have corrected and uncorrected presbyopia.[3]



* 1.8 billion people are estimated to have presbyopia, of whom 826 million are uncorrected.[3]

Near-vision spectacles improve lives and livelihoods. INDIA

This is good news, as there are not enough optometrists, opticians, or ophthalmologists to meet the overwhelming need, especially in low- and/or middle-income countries. For example, in sub-Saharan Africa, where 86% of presbyopia is uncorrected,[3] there are only 2.5 ophthalmologists and 7.5 optometrists per million (WHO recommends a minimum of 4 ophthalmologists and 10 optometrists per million population). These are located mainly in urban areas, creating a disparity in access, particularly in rural areas.[4] If the dispensing of near-vision spectacles were restricted to qualified eye health professionals only, most people with presbyopia would remain uncorrected, perpetuating avoidable vision impairment and productivity losses.

WHO recommends two complementary approaches to close the gap in access:

1 Providing ready-made near-vision spectacles via existing primary and community health care systems as part of an integrated, competency-based refractive error team (see article on pp. 6–7).
2 'Over-the-counter' provision in places such as pharmacies, shops, and community-level outlets, which is discussed in this article.

The case for over-the-counter provision

Making it possible to purchase ready-made near-vision spectacles over the counter – without the need for a prescription from an accredited eye care professional – is a practical, safe, and scalable way to close the gap in unaddressed need.

Over-the-counter provision has been tried and tested in most high-income countries: it removes unnecessary barriers to care, enabling hundreds of millions of people to access affordable near-vision correction quickly and safely. In low- and middle-income countries, where access to general eye care services is more limited, WHO notes the need for comprehensive eye care services in tandem with

over-the-counter provision of near-vision spectacles. This ensures that people whose vision does not improve with ready-made near-vision spectacles can access the refractive and eye care services they need. Given the scale of the need, and the positive impact on productivity and quality of life, over-the-counter provision of near-vision spectacles should not be delayed.

In all countries, over-the-counter access offers opportunities to inform and educate members of the public about the importance of regular eye examinations and to direct them to other eye health services as needed.

The benefits to optometry and ophthalmology providers

Market growth

By acting as a local access point for initial eye health information and making referrals to specialist services as needed, over-the-counter provision can increase the number of people seeking eye care from optometrists or ophthalmologists, thereby supporting a growing eye health care system.

In regions where ready-made near-vision spectacles can be purchased without the need for a prescription from an accredited eye care professional, optometry and ophthalmology have continued to grow. Evidence from countries where ready-made near-vision spectacles are widely available shows that, once people adjust to wearing them, they often purchase additional pairs: one for work, one for home, or higher-quality customised spectacles later on.[5] This creates sustained business for outlets and provides a pathway for patients to transition from over-the-counter solutions to professional eye care when needed.

Reducing the burden on existing services

By shifting simple presbyopia correction away from clinical settings, eye care professionals are freed to concentrate on diagnosing and managing more complex refractive errors and eye diseases. This not only increases access for people living in remote settings, but also reduces the heavy dependence on hospitals and specialist eye clinics, which are often concentrated in urban areas and already overstretched.

By linking with local outlets, promoting local eye care services, and supporting the education of people working in such outlets, local practitioners can help to strengthen referral pathways and ensure that people receive the eye care they need (see panel).

Demand generation for eye care and greater acceptance of spectacles

When households have easy access to ready-made near-vision spectacles, vision correction becomes normalised and less intimidating, provided vendors understand the need for awareness creation and referrals. Data collected by eye health organisations in India and sub-Saharan Africa (using Peek software) show that people with presbyopia who already own near-vision spectacles when they undergo vision screening are more likely to attend their referral appointments. This creates a virtuous cycle where entry-level access to spectacles helps to build awareness, reduces stigma, and ultimately drives demand for comprehensive eye health services.

Expanding access to ready-made near-vision spectacles aligns closely with the global agenda of achieving the WHO 2030 targets of effective coverage for refractive error by ensuring that essential, low-cost, high-quality interventions reach the people who need them most. Given the burden of presbyopia, ready-made near-vision spectacles are one of the simplest and most effective ways to address it. The over-the-counter approach does not diminish the role of optometrists and ophthalmologists; rather, it frees them to focus on complex and higher-risk cases, and it can be leveraged as an opportunity to increase health-seeking behaviour in the wider population – improving acceptance and enhancing the market for optometry and ophthalmology.

Making the most of over-the-counter provision

Over-the-counter provision can be enhanced in several ways, creating opportunities to raise public awareness of both presbyopia and other eye conditions and encourage more people to access other eye care services – thereby boosting the eye care sector. Eye care professionals should be at the forefront of these efforts, so that we can scale up service provision for all while improving access to specialist refractive error and eye health services for those who need it.

NOTE: Implementation of the suggestions below should not be prioritised in a way that will delay the availability of over-the-counter ready-made near-vision spectacles for presbyopia, which are safe and have a significant, positive impact on livelihoods and productivity.

1. Training for non-eye care professionals

To make the most of the opportunities offered by over-the-counter provision, some countries may wish to collaborate with eye care practitioners to provide non-eye care professionals with basic orientation or training on presbyopia, the selection of ready-made near-vision spectacles, and the importance of encouraging customers to seek eye care if they have additional needs or concerns. This 8-minute training video was created by RestoringVision: **bit.ly/RVnvtraining** for use in their programmes.

By educating customers on presbyopia, the safe use of near-vision spectacles, and the importance of seeking professional care when symptoms persist or other eye conditions are suspected, people working in over-the-counter providers can help bridge knowledge gaps at the community level. Local eye care professionals can also offer information and education sessions to outlets in their catchment area, thereby creating mutually supportive partnerships.

2. Eye health messaging

People working in over-the-counter outlets can be encouraged to help raise awareness of eye health, e.g., about the importance of regular eye examinations. This can be done either verbally or by displaying public health messages at the point of sale, such as posters encouraging customers to seek eye care if near-vision spectacles do not improve their sight or if they have additional needs or concerns (see examples in this issue).

Eye care professionals can partner with local outlets by providing public education messaging and even leaving their business card, so customers know where they can go to seek further help if needed.

3. Quality standards

Over-the-counter dispensing presents an opportunity for countries to implement quality standards for ready-made near-vision spectacles, as noted by WHO.

References

1 Frick KD, Joy SM, Wilson DA, Naidoo KS, Holden BA. The Global Burden of Potential Productivity Loss from Uncorrected Presbyopia. Ophthalmology. 2015;122(8): 1706-10. doi:**10.1016/j.ophtha.2015.04.014**

2 Chan VF, Wright DM, Mavi S, et al. Modelling ready-made spectacle coverage for children and adults using a large global database. Br J Ophthalmol. 2023;107(12):1793-1797. doi:**10.1136/bjo-2022-321737**

3 Fricke TR, Tahhan N, Resnikoff S, et al. Global Prevalence of Presbyopia and Vision Impairment from Uncorrected Presbyopia: Systematic Review, Meta-analysis, and Modelling. Ophthalmology. 2018;125(10):1492-1499. doi:**10.1016/j.ophtha.2018.04.013**

4 Palmer JJ, Chinanayi F, et al. Mapping human resources for eye health in 21 countries of sub-Saharan Africa: Current progress towards VISION 2020. Hum Resour Health. 2014;12(1). doi:**10.1186/1478-4491-12-44**

5 Sabherwal S, Nayab J, et al. Willingness to pay for a second pair of near-vision glasses: a cross-sectional study in a rural North Indian population. BMC Public Health. 2025;25(1):1495. doi:**10.1186/s12889-025-22278-2**


Kanika Bahl
CEO: Evidence Action, New York City, USA.


Ella Gudwin
CEO: VisionSpring, New York City, USA.


Bradley Heslop
Co-Founder and Co-CEO: Dot Glasses International, Nairobi, Kenya.


Pelin Munis
Chief Executive Officer: RestoringVision, Miami, USA.


Abigail Steinberg
Executive Director: Livelihood Impact Fund, Denver, USA.


Jessica Vernon
CEO: Maisha Meds, Nairobi, Kenya.


Sumrana Yasmin
Deputy Technical Director, Eye Health: Sightsavers, Islamabad, Pakistan.

Innovative screening and distribution strategies for addressing presbyopia

Multiple channels are needed to ensure everyone has access to near-vision spectacles.

Presbyopia affects 1.8 billion people worldwide.[1] It is easily corrected, but close to half of those affected (826 million) do not have access to the near-vision spectacles needed to correct their condition.

There is only one optometrist for every 100,000 people in eastern and western sub-Saharan Africa, and one optometrist for every 1,200,000 people in central sub-Saharan Africa.[2] The few optometrists working there are concentrated in urban areas, with a major shortage in rural areas. As the available eye care workforce is not large enough to meet the need, other strategies are needed.

In most high-income countries, people with presbyopia have been safely self-selecting near-vision spectacles for decades, including in pharmacies, small stores, and supermarkets. However, in many low- and middle-income countries, there is little awareness of presbyopia, and too few people have access to the solution: near-vision spectacles.

Multiple strategies and channels – for both screening and distribution – are needed to ensure people have access. The more varied the channels, the greater the opportunities to provide people who have diverse needs, and live and work in different contexts, with near-vision spectacles. Here are some of the innovative screening and distribution strategies being used worldwide.

Case scenarios: how different distribution channels can reach a wider range of people

Sara went to her local pharmacy to pick up her medication. While there, a pharmacist noticed she was struggling to read the instructions on the medicine bottle and prompted her to try on and select appropriate near-vision spectacles; this helped her to take her medicine safely.

Deepak had always assumed that struggling to see well up close was just a normal part of ageing, and nothing could be done to fix it. He would not have actively sought out presbyopia correction. While queuing at his local post office to send a delivery, he noticed some information about presbyopia, and a stand of spectacles to try. He tried them on and was amazed by the difference.

Nadia works long hours in a factory making garments. She was struggling to finish as many garments per day as before, and thought she might need spectacles, but all the clinics nearby were closed by the time she left work. One day, a vision screening team came to her factory and found that she did have near-vision impairment. With near-vision spectacles, she was able to work much faster, as she could see fine details more clearly.

Mercy spends most of her time at home, caring for her children and her elderly mother. It is difficult for her to travel into town. When Mercy's family bought a small solar panel, company staff members asked her some basic questions about her sight. After finding that Mercy had good distance vision, but struggled up close, they invited her to try near-vision spectacles. These have made many of her daily tasks much easier, including making monthly payments by phone!

None of these distribution channels alone would have been able to reach all of these people, who have different barriers, priorities, and spend their days in different ways.

1. Pharmacies

Pharmacies are a trusted point of access to care for billions of people, already providing eye health medication such as antibiotics for conjunctivitis. Maisha Meds has built technology that helps pharmacies deliver high-quality, affordable medicines while strengthening their business operations. With 5,000 pharmacies across four countries in Africa using their technology, Maisha Meds has recently partnered with suppliers of affordable spectacles, initially providing near-vision spectacles in 45 of its pharmacies in Kenya. This approach is now scaling across the four countries, aiming to provide near-vision spectacles to nearly half a million people in 2026. Maisha Meds has created pricing and incentive models for pharmacists, and it has partnered with national and local government leaders to raise presbyopia awareness in the community.

2. Faith-based health systems

Faith is deeply woven into the fabric of life across Africa, not only as a source of spiritual guidance, but also as a driving force for community health and development. Across the continent, Christian health associations collectively deliver between 30% and 70% of health services, depending on the country and context. In many rural areas, these health associations enable access to essential care for more than 300 million people.

Recognising their reach and trust within communities, RestoringVision partnered with the Africa Christian Health Associations Platform (ACHAP) to launch the Africa Clear Sight Partnership (ACSP), an initiative to bring vision screening and near-vision spectacles to tens of millions of people living with uncorrected presbyopia.

Through this partnership, presbyopia screening and near-vision spectacles are reaching people in need in Eswatini, Kenya, Malawi, Nigeria, Sierra Leone, and Zambia. Innovative models have emerged, such as offering access in primary and community care clinics. Eye health education has also been integrated into faith-based services: congregants learn about vision care during worship, followed by screening and spectacle distribution in tents outside the church or place of worship.

3. Postal workers

The Universal Postal Union (**www.upu.int**) reports that nearly 5 million postal workers around the globe delivered 225 billion letters and 26 billion parcels domestically in 2023, reaching both urban and remote communities. Postal workers also sell a wide range of products and are a critical service, reaching the most disadvantaged people in society: those living in the 'last mile' – who are not being reached by health care and eye care services.[3]

In addition to their established distribution networks and logistical experience, postal workers themselves need good near vision to do their jobs, while customers need good near vision to use their postal services. The Universal Postal Union (UPU), like the World Health Organization (WHO), is a specialised United Nations agency which works across borders with 192 member states. WHO and UPU have launched a global collaboration,[4] starting in India, to use the postal service infrastructure to deliver presbyopia correction. This cross-sector collaboration, which is part of the WHO SPECS initiative, demonstrates how we can move beyond the health care sector to provide basic eye care.

4. Workplaces

Due to the age of onset of symptomatic presbyopia (approximately 40 years), many people are still working and providing for their households when they begin to experience near-vision impairment.

"Due to the age of onset of symptomatic presbyopia (approximately 40 years), many people are still working and providing for their households when they begin to experience near-vision impairment."

A factory worker is able to see details more clearly after receiving near-vision spectacles in his place of work. VIETNAM

Given that many health care and eye care services are provided at hospitals or clinics during working hours, working people can be disproportionately excluded from accessing these services if they are unable to leave the workplace. Finding ways to provide access to them is crucial. VisionSpring's 'See to Earn' initiative provides screening and spectacles – at a large scale – in workplaces, including factories, farms/agricultural estates, and via outreach into the informal sector.

5. Bundling services

Essential service providers, such as solar energy companies, have among the best 'last mile' distribution systems in low-income markets. Many already operate with microfinancing and staggered payment structures, making them well placed to reach customers who might otherwise struggle to pay for spectacles upfront.

A promising example of working with such a company to support access to presbyopia correction is the collaboration between Dot Glasses and Sun King, a leading solar energy provider. Staff members ask customers if they have a pair of near-vision spectacles; if not, the person is invited for screening and provided with near-vision spectacles, if needed. By correcting presbyopia, customers are better able to stay productive, manage repayments more efficiently, and maintain fuller participation in community life. For service providers, these improvements may translate into more consistent repayment and stronger customer relationships.

"To ensure as many people as possible feel comfortable attending the screening camps, they are set up in locally accepted spaces within walking distance of people's homes, such as schools."

6. Government pension programmes

Access to eye care is essential for healthy ageing, yet millions of older adults in Peru, especially those living in poverty, lack the resources to obtain even basic vision services. Poor vision can limit independence, reduce quality of life, and increase vulnerability to injury and isolation.

To address this need, Pensión 65, the Solidarity Assistance Program of Peru's Ministry of Development and Social Inclusion, launched *Para Verte Mejor* ("To See You Better"), a nationwide initiative that offers vision screening and free near-vision spectacles to socioeconomically vulnerable older adults. The programme is implemented in collaboration with Management Sciences for Health (MSH)-Perú and RestoringVision. To date, the programme has reached 414,000 people across Peru in an efficient and sustainable way.

7. Outreach vision camps

Sightsavers partners with ministries of health and local organisations to hold outreach vision camps that identify people with vision needs, especially in marginalised communities. To ensure as many people as possible feel comfortable attending the screening camps, they are set up in locally accepted spaces within walking distance of people's homes, such as schools. Attendees undergo near and distance vision screening and an eye examination. People who need surgery are referred, and those who need spectacles or an alteration to their current prescription are seen by an optometrist or refractionist, who prescribes spectacles.

By bringing services closer to communities, these camps have improved access to, and acceptance of, eye health services and spectacles in remote and rural communities, particularly for women, girls, older people, and people with disabilities.

Outreach camps improve equitable access to near-vision services. PAKISTAN

8. Making the most of existing programmes outside of eye care

Evidence Action runs a water, sanitation, and hygiene (WASH) programme in Mbale district in Uganda, which reaches 10% of Uganda's population. In August 2025, they launched a two-armed near-vision spectacle distribution project that will run until early 2026. In the second arm, Evidence Action personnel, who already promote safe water practices and chlorination uptake, now host near-vision screening and spectacle distribution events in the communities they serve. Staff members work with local radio, community health workers, local leaders, and key community members to inform people about the event and ensure as many people as possible attend.

Further reading

To read more insights into how other organisations are distributing near-vision spectacles, visit **bit.ly/3qTyBzt**.

References

1 Fricke TR, Tahhan N, Resnikoff S, et al. Global Prevalence of Presbyopia and Vision Impairment from Uncorrected Presbyopia: Systematic Review, Meta-analysis, and Modelling. Ophthalmology. 2018;125(10):1492-1499. doi:**10.1016/j.ophtha.2018.04.013**

2 Naidoo K, Govender-Poonsamy P, Morjaria P, BlockS, Chan V, Yong A and Bilotto L. Global mapping of optometry workforce. 2023. African Vision and Eye Health. [Online] 82(1). **bit.ly/aveh850**

3 Faal H, Bastawrous A, Wolvaardt E. Overcoming the challenge of the last mile. *Community Eye Health J.* 2022;35(115):5-6. **bit.ly/cehj229**

4 WHO and Universal Postal Union join forces to improve access to eyeglasses. **bit.ly/bhi3hP**

Learning from a hybrid programme delivering presbyopia services in India

Rollo Romig
Manager: Solutions Insights Lab, Brooklyn, USA.

Miranda Pursley
Impact Research Manager: Solutions Insights Lab, Brooklyn, USA.

Amit Gupta
COO: The/Nudge Institute, Bangalore, India.

References

1 Fricke TR, Tahhan N, Resnikoff S, et al. Global Prevalence of Presbyopia and Vision Impairment from Uncorrected Presbyopia: Systematic Review, Meta-analysis, and Modelling. Ophthalmology. 2018;125(10): 1492-1499. doi:**10.1016/j.ophtha.2018.04.013**

These insights were derived by Solutions Insights Lab, through interviews with The/Nudge Institute and other stakeholders involved in the project, including entrepreneurs, government stakeholders, and the people who received near-vision spectacles in the pilot stage. Read more about the project here: **bit.ly/4r8gqps**

To read more insights into how other organisations are distributing near-vision spectacles, visit **bit.ly/3qTyBzt**

A pilot project has already generated helpful insights that could be replicated in other countries that want to address presbyopia.

Padmavati, an entrepreneur, with Mani, a fisherman who bought near-vision spectacles from her. INDIA

"After getting positive feedback from one fisherman, I sold around 20 pairs of reading glasses to 20 other fishermen," said Padmavati, an eyeglass entrepreneur in Tamil Nadu. 'Reading glasses,' it turns out, is a misnomer. A better term is 'near-vision spectacles,' because it captures all the many reasons why people rely on them. And for middle-aged fishermen, near-vision spectacles are invaluable for repairing their nets. This was exactly what Padmavati had been hoping to see: a single demonstration cascading into many more sales. But it was also a revelation. Who knew that fishermen wanted near-vision spectacles?

Nearly everyone 40 years and older is affected by presbyopia, which makes it hard to focus on near objects. However, up to 826 million people worldwide[1] lack the affordable, simple spectacles that would correct it, which has a profound effect on their livelihoods. A huge number of those who need near-vision spectacles – some 300 million people – is concentrated in India. Here, The/Nudge Institute, a poverty-alleviation organisation, is implementing a model that works with local entrepreneurs and the established system of community health workers in the country to distribute ready-made near-vision spectacles to people who do not have access to vision centres, whether because of cost, distance, or both. In the long term, the hope is that increased awareness of presbyopia, and the uptake of near-vision spectacles, will grow a sustainable market that will benefit existing vision centres.

Community health workers and entrepreneurs are supported to go into the community to find people who would benefit from near-vision spectacles. As part of their training, they also learn how to identify other eye conditions and refer customers to an eye care worker (such as an optometrist) if they suspect they are seeing something other than presbyopia.

The pilot stage of the project has already generated helpful insights that could be replicated in other countries that want to address presbyopia.

1 **Connect to existing networks.** When it comes to public health interventions, India's great advantage is its array of community networks, both grassroots and government-led. In the northeastern state of Meghalaya, for example, community health workers are actively collaborating with local village health councils when setting up free eye screening and near-vision spectacle distribution at vision camps. And in Tamil Nadu, entrepreneurs are spreading the word through women's self-help groups.

2 **Learn from entrepreneurs.** Because entrepreneurs must convince people in order to make a sale, they must "test pitches, timing, product choices, and price points," said Ankur Sanghai, who leads The/Nudge's entrepreneur programme. This generates real-time, actionable feedback that can be incorporated into standard operating procedures. For example, in Tamil Nadu, entrepreneurs learned that many customers actually prefer bifocals, to avoid the hassle of taking their near-vision spectacles on and off as needed.

3 **Demand is about visibility and trust, not just price.** "There isn't as much lack of awareness around the problem as we think there is," said Amit Gupta, COO of The/Nudge. "The lack of awareness is regarding how cheap the solution is." In Karnataka, about 90% of recipients were still using near-vision spectacles months later – and were willing to pay an average of INR 350, or around USD 4, for a second pair. In short, once people trust the product, modest payment is sustainable.

4 **Demonstrate immediate impact and build trust.** The entrepreneurs have learned to increase impact by offering immediate, customised demonstrations of the spectacles' usefulness. If the potential customer is a cook, for example, the entrepreneur is ready with a tray of mixed lentils to show how much easier they are to sort when wearing near-vision spectacles. Offering group screening increases impact too: as one entrepreneur observed, "If one person buys the spectacles, another person will feel that they can also buy them, because it's trustworthy."

5 **Policies and reframing can unlock scale.** Because near-vision spectacles are available over-the-counter in India, anyone can legally dispense them; this is a regulatory condition that lowers costs and opens non-medical channels. More important, reframing presbyopia as a livelihood issue opens up additional funding possibilities from livelihood and poverty alleviation programmes. That reframing may be the most powerful insight: near-vision spectacles can spread much further if we think of them not only as a health intervention, but also as a tool for earning.

The role of philanthropy in shaping the market for near-vision spectacles

Abigail Steinberg
Executive Director: Livelihood Impact Fund, Denver, USA.

Peter Holland
Chief Executive: International Agency for the Prevention of Blindness (IAPB), London, UK.

Presbyopia is a global challenge that can be solved in our lifetime.

Few global health challenges are both sizable and solvable within a decade. Presbyopia, or age-related near-vision loss, is one such challenge. Over 1.8 billion people live with presbyopia, but an estimated 800 million lack access to the solution: low-cost near-vision spectacles (reading glasses) that are safe, effective, and can be self-selected – allowing people with presbyopia to farm, craft, read, write, tailor, and provide health care, among other tasks.

Near-vision spectacles restore vision and livelihoods. INDIA

We believe providing affordable access to near-vision spectacles to 800 million people in the next 10 years is not only possible, but also solves a productivity and livelihoods issue: it could yield USD 1.05 trillion in productivity gains by 2050.[1]

The experience of restored near vision is transformative. However, many people are not aware of presbyopia, and do not realise that their vision can easily be improved by near-vision spectacles. As a result, normal market forces do not (yet) apply.

Philanthropy can play a critical role in helping to create that initial demand: by supporting subsidised or free access for people receiving their first pair of near-vision spectacles. Such initial 'angel' investment in presbyopia is highly effective and impactful and – along with policy changes and other efforts – contributes to longer-term market shaping and sustainability.

Research across India,[2] Sierra Leone,[3] Pakistan, and other countries shows that, once people begin using near-vision spectacles, uptake becomes 'sticky': usage rates remain well above 70% even after five years; in India and Pakistan, these rates are greater than 90%.[2] Repurchasing rates (buying a second pair) reach 50–60%, even among those living at or just above the poverty line, at price points above USD 6 per pair. This demonstrates that – while subsidies or free distribution are essential to overcome the barrier of first-time use – many individuals are willing and able to purchase subsequent pairs once they see the value in near-vision spectacles: usually only once they experience, for themselves, the transformative effect this has on their sight and their lives. In this sense, philanthropy helps to 'de-risk' the market: it covers the cost of initial adoption and paves the way for sustainable, consumer-driven demand.

However, philanthropy alone cannot meet the scale of global need. Long-term sustainability depends on market-shaping strategies that ensure affordable, widely available spectacles. These strategies include strengthening supply chains to reduce the cost of manufacturing and distribution, supporting local entrepreneurs to deliver near-vision spectacles through community networks, pharmacies, and private outlets, and developing financing models such as community-driven savings tools, cross-subsidisation, or insurance coverage that make spectacles affordable for those with limited incomes. Policy and regulatory support are also essential, enabling ready-made near-vision spectacles to be sold via non-medical channels – thereby dramatically increasing the number of access points.

Encouragingly, we already see models that work, as described in other articles in this issue.

Experience from countries where near-vision spectacles are normalised, such as the United States and the United Kingdom, shows that, once people see near-vision spectacles as a routine part of ageing, awareness campaigns become almost unnecessary. People naturally seek out spectacles when they notice their near vision declining, having seen parents and grandparents do the same. This is the tipping point we aim to reach globally: once enough people have access, the behaviour becomes self-sustaining across generations (see pp. 15–17). Each pair of spectacles not only restores sight, but also builds the expectation that vision correction is normal and attainable.

Philanthropy is often drawn to 'big, solvable problems,' Guinea worm eradication being a famous example. Presbyopia and refractive error correction belong in this category. If we act now, we can bring near-vision correction to billions within a decade. If we delay, it could take 80–100 years to achieve universal access to spectacles at the current pace, with immeasurable social and economic costs. The opportunity is extraordinary: spectacles are among the most cost-effective health interventions in existence, with immediate impact on livelihoods, productivity, and quality of life. Studies show improved income and productivity among tea pickers,[4] garment workers,[5] and others[6] once they have received near-vision spectacles. For philanthropy and health systems alike, this is a 'best buy' intervention.

Philanthropy is indispensable for getting spectacles onto faces for the first time. But the true promise lies in creating a sustainable, affordable market: one where access no longer depends on external grant dollars, but on locally rooted supply and demand. With the right mix of investment, policy, and entrepreneurship, presbyopia correction can move from being an overlooked global health issue to a solved one – within our lifetimes.

References

1 Bastawrous A, Suni AV. Thirty Year Projected Magnitude (to 2050) of Near and Distance Vision Impairment and the Economic Impact if Existing Solutions are Implemented Globally. Ophthalmic Epidemiol. 2020;27(2):115-120. **doi:10.1080/09286586.2019.1700532**

2 VisionSpring. Seeing beyond the first pair: consumer behaviour and eyeglass replacement in India. **bit.ly/4cfPwpu**

3 Jolley E, Manjo H, et al. (2025). Pilot operational research study into the durability, usability, and wearability, of near vision eyeglasses in Sierra Leone: Final report. Sightsavers. **bit.ly/4qb44Xp**

4 Reddy PA, Congdon N, et al. Effect of providing near glasses on productivity among rural Indian tea workers with presbyopia (PROSPER): a randomised trial. Lancet Glob Health. 2018;6(9):e1019-e1027. **doi:10.1016/S2214-109X(18)30329-2**

5 Ahmed M, Shefali MK, et al. Vision Impairment and Productivity Among Female Garment Workers in Bangladesh: A Cohort Study. Asia Pac J Ophthalmol (Phila). 2022;11(1):79-84. **doi:10.1097/APO.0000000000000485**

6 Sehrin F, Jin L, et al. The effect on income of providing near vision correction to workers in Bangladesh: The THRIVE randomized controlled trial. *PLoS One*. 2024;19(4):e0296115. **doi:10.1371/journal.pone.0296115**

Alison M Buttenheim
Professor of Nursing and Healthy Policy, University of Pennsylvania, Philadelphia PA, USA.

Reaching a tipping point for near-vision spectacles

Near-vision spectacles will become self-sustaining in low- and middle-income countries once enough people begin to purchase a second pair for themselves; this is the 'tipping point.'

Increasing access to near-vision spectacles improves quality of life, dignity, and livelihoods. BANGLADESH

Presbyopia – the normal loss of visual focus at near distances that occurs with age – can be easily corrected with inexpensive, ready-made near-vision spectacles in most cases. Despite this, uncorrected presbyopia remains one of the most common but solvable causes of vision impairment globally, with hundreds of millions of adults lacking near-vision correction.[1]

Near-vision correction delivers immediate and tangible benefits, including improvements to productivity, livelihoods, and quality of life.[2] Lost productivity due to uncorrected or undercorrected presbyopia contributes to an estimated annual productivity loss of USD 25 billion,[3] with some estimates placing this as high as USD 54 billion annually in low- and/or middle-income countries, specifically.[4] Farmers need to read seed packets; seamstresses need to thread needles; grandparents want to help children with schoolwork. Yet, unlike other simple health technologies – such as insecticide-treated bed nets – near vision spectacles have not achieved widespread, self-sustaining adoption in many low- and middle-income countries. Understanding why this has not yet happened, and how it still might, is critical for advancing equitable access to vision care.

In many low- and middle-income countries, reduced near vision is seen as a difficult but unavoidable part of ageing: there is low awareness that near-vision spectacles can help, and few people have actually experienced their positive impact. This is exacerbated where there is also lack of availability/affordability of near-vision spectacles, and businesses are reluctant to invest before they have confidence in the market.

Philanthropic investment has been vital for raising awareness of presbyopia and giving people access to their first pair of near-vision spectacles (see article on p.14) – but ongoing philanthropic input is not sustainable.

For near-vision spectacles to become ubiquitous and self-sustaining in the absence of long-term government funding, enough people need to have experienced their positive impact – and therefore be willing to purchase a second pair – so that businesses and entrepreneurs are willing to invest in importing and distributing them at an affordable price. Once this happens, we can say that near-vision spectacles have reached a **'tipping point'** – the point at which awareness campaigns become almost unnecessary.

Understanding what social tipping points are, how and why they apply to presbyopia, and how near-vision spectacles can be 'tipped', is what this article aims to show.

What are social tipping points?

Social tipping points occur when small, well-timed interventions interact with system conditions to produce rapid and lasting change. Rather than steady linear growth, tipping is characterised by acceleration, new equilibria, and limited reversibility.[5,6]

For near-vision spectacles, the tipping point is the point at which they shift from a specialised product for the few to a universal good for the many, through market transformation on both the supply and demand sides.

Applied to public health products and services, tipping points help explain why some interventions scale organically, while others remain dependent on continuous external inputs. In the context of near-vision spectacles, tipping would be evident when access, norms, and market activity reinforce one another such that acquisition and replacement (buying a second pair) continue without sustained donor or programmatic pressure.

Learning from other tipped products

Other health products illustrate what it takes to tip a market. Insecticide-treated nets for malaria only surged when quality seals, catchy slogans, and donor-backed distribution converged to make them available everywhere.[7] Condoms expanded when branded products broke stigma and offered fun, not just protection.[8] The Lucky Iron Fish—a small block of iron placed in cooking pots to address anaemia—succeeded in villages when it became a cultural symbol, not just a supplement.[6]

These stories highlight five lessons, which are also helpful criteria for deciding whether a product is suitable for tipping:

1 **Delight matters.** Products must exceed expectations, not just meet needs.
2 **Trust reduces friction.** Quality, branding, and regulatory backing reduce hesitation.
3 **Availability sustains demand.** Once products are reliably present in everyday settings, habits form and reinforce themselves.
4 **Word of mouth is the engine.** Social contagion and peer-to-peer marketing[9] often outperform mass campaigns in accelerating adoption curves.
5 **Enabling environments are necessary but not sufficient.** Regulation and retail structures are essential foundations but need to be paired with active demand generation.

Why near-vision spectacles are great candidates for tipping

Near-vision spectacles are a great fit for the five criteria above. They delight the person with presbyopia, with a palpable "wow" moment when their blurred vision clears, and offer the potential to incorporate style or identity as additional moments of delight. Unlike preventive products that protect against probabilistic, future, and (therefore) invisible risks, the benefits of these near-vision spectacles are also experienced instantly. Availability in the market promotes awareness where it is low, and the visibility of near-vision spectacles on faces makes using them a public, obvious, and contagious behaviour. Seeing your neighbour or coworker put on a pair lowers psychological barriers; it signals social permission and fuels word-of-mouth marketing. Two additional features of near-vision spectacles make them tipping-ready in many markets:

- **Low cost and simple fit.** With ready-made spectacles, which have the same dioptre in both eyes, there is no need for individualised fitting or long clinic visits. Assuming a favourable regulatory environment, they can be made available via existing retail and community networks.
- **Large latent market.** Presbyopia is universal with age. Unlike products tied to specific conditions or risk groups, virtually everyone over the age of 45 is either already affected by presbyopia or soon will be; and many (though not all) cases of presbyopia can be addressed with ready-made near-vision spectacles. While use cases, eligibility, and motivation vary by location and subpopulation, the unmet need in low- and middle-income countries is great.[10]

These features combine to create fertile ground for reinforcing feedback loops. More wearers beget more visibility, which drives more trial, which increases demand and availability, which makes near-vision spectacles even easier to get.

It is important to note that widespread first-pair distribution alone does not constitute a tipping point; tipping occurs when replacement and repeat acquisition become normative and self-sustaining.

How can we ensure that near-vision spectacles reach a tipping point?

Lenton and colleagues describe three core components that tip systems: enabling conditions that prepare the system, triggering interventions that push behaviour past a threshold, and reinforcing feedback loops that lock in the new state.[5]

Good near vision is essential in a wide range of jobs. INDIA

1. Enabling conditions: preparing the ground
Enabling conditions determine whether a market is capable of tipping. For near-vision spectacles, these include policy and regulatory environments, retail infrastructure, market norms, and consumer expectations. In some settings, near-vision spectacles' medical device status can restrict distribution to medical settings, such as clinics or campaigns. This is in contrast to other mass-produced functional eye wear (such as safety goggles or sunglasses), other basic refractive tools (such as magnifiers), or other basic healthcare items (such as compression stockings) which are readily available without excessive restriction. Recognising that ready-made near-vision spectacles are an extremely low-risk medical device (considered Class I by the UK Government and the FDA in the US) and removing harmful regulatory barriers – through over-the-counter pathways and appropriate task-shifting – can substantially expand access points and normalise spectacle use.

Retail infrastructure is equally critical. Pharmacies, kiosks, markets, and other non-clinical outlets lower transaction costs and embed near-vision spectacles within routine purchasing behaviour. Retailers in low-resource settings routinely stock inexpensive but infrequently purchased items (e.g., torches, buckets, padlocks, or kitchen tools) because population-level demand is continuous even when individual purchase cycles are long. Near-vision spectacles fit squarely within this category: they are small, non-perishable, low-risk to stock, and associated with a very large unmet need.

Finally, enabling conditions include norms and expectations. Awareness that presbyopia is correctable, common and progressive, and that replacement will be needed over time, helps set the stage for sustained use. Without these conditions, triggering interventions may generate short-term uptake but fail to produce lasting change.

2. Triggering the shift: getting the first pair into hands
Triggering interventions push systems across the tipping threshold. For near-vision spectacles, the central trigger is straightforward: giving people their first pair to try on. Evidence from multiple domains shows that first-hand

experience is a powerful catalyst for behaviour change, particularly when benefits are immediate and salient (see article on p. 13 in this issue).

First-pair acquisition can occur through diverse channels and price points – free, subsidised, or at cost – without undermining market development. Indeed, a robust body of evidence from randomised evaluations shows that free provision of preventive and promotive health goods often increases long-term use and demand rather than crowding it out.[9,11] In the case of near-vision spectacles, free or subsidised distribution can reduce risk, introduce consumers to the product's value, and seed future market activity (see the section on feedback loops which follows).

Crucially, diversity in delivery models should be understood as a feature rather than a flaw. Outreach campaigns, health posts, pharmacies, kiosks, and integration into existing programmes each reach different segments of the population. The role of the trigger is not to standardise the avenue of delivery but to provide access across contexts (see the article on p. 10 in this issue).

3. Feedback loops: second-pair purchase as the tipping signal

A core insight from bringing a tipping point lens to scaling near-vision spectacles is that **second-pair purchase constitutes the key reinforcing feedback loop for near-vision spectacle adoption**. While the first pair introduces visual clarity, the second pair reflects habit formation, market confidence, and social diffusion.

Emerging evidence supports this distinction. Studies from India, Sierra Leone, Pakistan, Kenya, and Uganda show high long-term use of first pairs, with replacement occurring later and unevenly across settings. In India, more than half of users had purchased a replacement after 5–6 years, often at full price,[12] and the majority of users in Sierra Leone[13] and Pakistan had replaced theirs after 3–5 years. These findings suggest that spectacles have better durability and lifespan than had previously been assumed, improving their cost effectiveness further, and that once replacement is required, users do indeed pursue this.

Once replacement begins, reinforcing feedbacks emerge. Ongoing use increases the visibility of near-vision spectacles in communities, signalling social acceptability and prompting word-of-mouth promotion. Retailers observe this demand and restock, improving local availability. Reducing the required distance and effort further encourages replacement, closing the loop. At this stage, adoption becomes self-sustaining, and the market can transition for most individuals, from reliance on philanthropic or government programmes to routine consumer behaviour.

Importantly, first and second pair acquisition may differ. First pairs are often acquired through outreach or health channels, while in India, second pairs were often more likely to be purchased through private optical shops. Recognising, and designing for, such transitions is essential for reaching a tipping point.

Implications and call to action

Reaching a tipping point in the adoption of near-vision spectacles is both feasible and actionable. Our framework suggests three priorities:

1. **Create and support enabling conditions** through policy reform, retail infrastructure, and norm-setting.
2. **Be deliberate and flexible in triggering first-pair acquisition**, including free or subsidised strategies that will result in sustained long-term use.
3. **Recognise and accelerate second-pair purchase** as the critical feedback loop, through education, reminders, local availability, and encouragement of multi-pair ownership.

Pursuing a near-vision spectacles tipping point does not require abandoning existing programmes; rather, it requires aligning them toward a shared goal of self-sustaining adoption for the majority of the population. For funding agencies, implementers, and policy makers, the implication is clear: investment should prioritise not only reach and adoption, but also creating the conditions under which markets begin to sustain themselves.

Who can do what?

Different stakeholders have different roles to play in promoting second-pair purchase.

Policymakers can move to reclassify ready-made near-vision spectacles (similar to sunglasses and safety goggles), remove requirements for formal refraction, offer subsidies, include near-vision ready-made spectacles in essential benefits packages, and support and collaborate with communication campaigns and surveillance efforts.

Non-governmental organisations can track second pair purchasing as a key metric and purposefully design spectacle distribution programmes to transition from free distribution to sustainably subsidised and tiered retail programmes.

Retailers can join purchasing groups and distribution schemes, commit to stocking a selection of spectacles at different price points, train staff on fitting and other customer service, and pay attention to the marketing mix and how the spectacles are displayed in their stores.

Community and primary health workers can highlight the benefits of presbyopia correction, normalise near-vision spectacle use (including by modelling their use), and link community members to retail outlets.

References

1 Fricke TR, Tahhan N, Resnikoff S, et al. Global Prevalence of Presbyopia and Vision Impairment from Uncorrected Presbyopia: Systematic Review, Meta-analysis, and Modelling. Ophthalmology. 2018;125(10):1492-9. doi:**10.1016/j.ophtha.2018.04.013**

2 Goertz AD, Stewart WC, Burns WR, et al. Review of the impact of presbyopia on quality of life in the developing and developed world. Acta Ophthalmol. 2014;92(6):497-500. doi:**10.1111/aos.12308**

3 Frick KD, Joy SM, Wilson DA, Naidoo KS, Holden BA. The Global Burden of Potential Productivity Loss from Uncorrected Presbyopia. Ophthalmology. 2015;122(8):1706-10. doi:**10.1016/j.ophtha.2018.04.014**

4 Ma Q, Chen M, Li D, et al. Potential productivity loss from uncorrected and under-corrected presbyopia in low- and middle-income countries: A life table modeling study. Front Public Health. 2022;10:983423. doi:**10.3389/fpubh.2022.983423**

5 Lenton TM. Tipping positive change. Philos Trans R Soc Lond B Biol Sci. 2020;375(1794):20190123. doi:**10.1098/rstb.2019.0123**

6 Lee NR. Conducting Social Marketing Research: A Practical Guide. Taylor & Francis, 2025.

7 The Global Tipping Points Report 2023. University of Exeter, 2023. **bit.ly/cehj-BwF**

8 Gladwell, M. The Tipping Point: How Little Things Can Make a Big Difference. Little, Brown, 2006.

9 The Role of Exposure, Social Networks and Marketing Messages in Households' Willingness to Pay for Malaria Prevention in Kenya. The Abdul Latif Jameel Poverty Action Lab. **bit.ly/4u2dCHP**

10 Bastawrous A, Kassalow J, Watts E. Global uncorrected refractive error and presbyopia: the size of the problem. Community Eye Health. 2024;37(122):3-4. **bit.ly/cehj784**

11 Dupas P, Miguel E. Chapter 1 - Impacts and Determinants of Health Levels in Low-Income Countries. In: Handbook of Economic Field Experiments Vol. 2: 3–93, North-Holland, 2017. **bit.ly/ceh12**.

12 VisionSpring. Seeing beyond the first pair: consumer behaviour and eyeglass replacement in India. Vision Spring. 2025. **bit.ly/4cfPwpu**

13 Jolley E, Manjo H, et al. (2025). Pilot operational research study into the durability, usability, and wearability, of near vision eyeglasses in Sierra Leone: Final report. Haywards Heath: Sightsavers. **bit.ly/4qb44Xp**

Thulasiraj Ravilla
Director Operations: Aravind Eye Care System, India.

Do other models of near-vision services compete with vision centres?

Vision centres benefit when more people become aware of near-vision spectacles.

Near-vision spectacles make it easier to sift grain. INDIA

There have been concerns, in India and elsewhere, that broader acceptance of non-ophthalmic approaches to the dispensing of near-vision spectacles could compete with traditional approaches, including vision centres, undermining their financial viability.

Vision centres were designed to provide primary eye care, typically serving communities living within a 10-kilometre radius. In India, this would cover a population of up to 100,000 people, depending on the population density.

It is estimated that 25–30% of India's general population have presbyopia (age-related near vision impairment) and/or distance refractive errors. Just 15% of those with presbyopia, and 35% of those with distance refractive errors, have received the spectacles they need.[1] It is worth noting that this is a conservative estimate, based on findings from one of the better-served districts in the country.

Applying these figures to the population of 100,000 people served (on average) by a vision centre would translate to 30,000 people needing either near or distance vision spectacles. Assuming, conservatively, that the spectacles would require replacement once every four years, each vision centre would need to supply 7,500 pairs of spectacles per year.

While there is no published evidence as yet, most vision centres do not serve anywhere near this volume: current estimates of spectacle provision in vision centres average at around 1,000 pairs annually. Even at this low level of service, the margin of profit from the sale of spectacles is a significant contributor to their financial sustainability.

In India and elsewhere, there are multiple ways that people are currently able to obtain near-vision spectacles.

Facility-based distribution. Near-vision spectacles are dispensed in eye care facilities, such eye hospitals, optical outlets, and vision centres. Increasingly, spectacles are also being dispensed in outreach screening eye camps.

Community-based distribution. In the community, traditional itinerant bangle sellers, who also sold near-vision spectacles, have largely been replaced by micro-entrepreneurs with essential training who go from village to village selling ready-made spectacles for near and distance vision. The latter are supported by non-profit organisations like VisionSpring[2] or GoodVision[3] (formerly OneDollarGlasses) and corporate entities such as Essilor-Luxottica Foundation.[4]

Over-the-counter distribution. Near-vision spectacles are also sold over-the-counter in general stores and supermarkets. However, this is limited to larger urban cities.

Whether the two 'non-ophthalmic' distribution channels above pose a threat to the viability of vision centres, is worth contemplating.

The number of general stores or supermarkets dispensing ready-made near-vision spectacles in India is limited, and largely confined to big cities, again posing very little threat to the viability of vision centres, which are typically in small rural towns. The community-based approaches described above could overlap with the communities served by vision centres. However, these are very sporadic and – if repeated – they often take place once a year or less.

While there is clearly significant potential for vision centres to grow their refractive error services, the magnitude of the unmet need makes it unlikely that other ways of distributing near-vision spectacles – including 'non-ophthalmic' approaches – would compete with vision centres and existing eye care services or undermine their financial viability.

In fact, in the Indian context – where the market is very underdeveloped – the immediate strategy should be one of growing the market or increasing the number of people in need who are actually using spectacles – which to a large extent, is being done by community-based distribution and over-the-counter sales. So, these "competing" approaches are, in fact, resulting in more people becoming aware of, and using, near-vision spectacles. Because presbyopia is a life-long condition, requiring periodic replacement of spectacles, this – in reality – would further enhance the financial viability of vision centres.

References

1 Subburaman GB, Gupta S, Vardhan A, Datta D, Ravilla T. Prevalence, Coverage and Effective coverage of Refractive Error in all Age Groups in Theni District, India. AJO International. 2025 Aug 5:100162. doi:**10.1016/j.ajoint.2025.100162**

2 VisionSpring: **https://www.visionspring.org/what-we-do** accessed on 21 Dec. 2025

3 Good Vision: **https://www.eindollarbrille.de/en/information/program-countries/india** accessed on 21 Dec. 2025

4 ONESIGHT EssilorLuxottica Foundation: **https://onesight.essilorluxottica.com/impact-stories/partnerships-eliminate-poor-vision-in-india/** accessed on 21 Dec. 2025

Does your patient need near-vision spectacles?

Check their eyesight: which way is the E pointing?

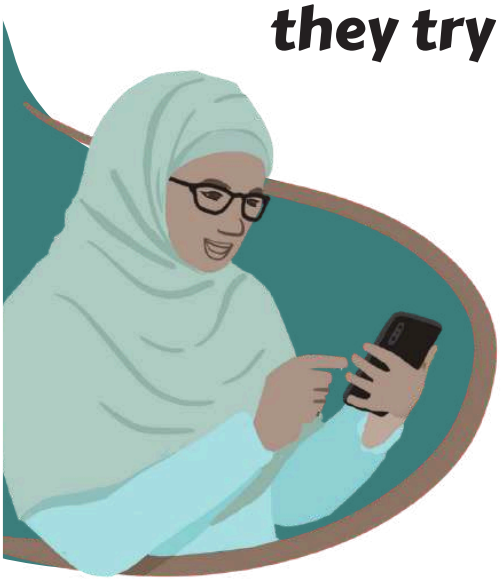
Distance vision test chart, for use at 3 m:

6/12

Near vision test chart, for use at 40 cm:

N6

If they can see well at distance but cannot see the N6 line, recommend they try some near-vision spectacles.



+3.00 higher strength
+2.50
+2.00
+1.50
+1.00 lower strength

Near-vision spectacles are only used for close-up tasks; they **must not** be worn for driving.

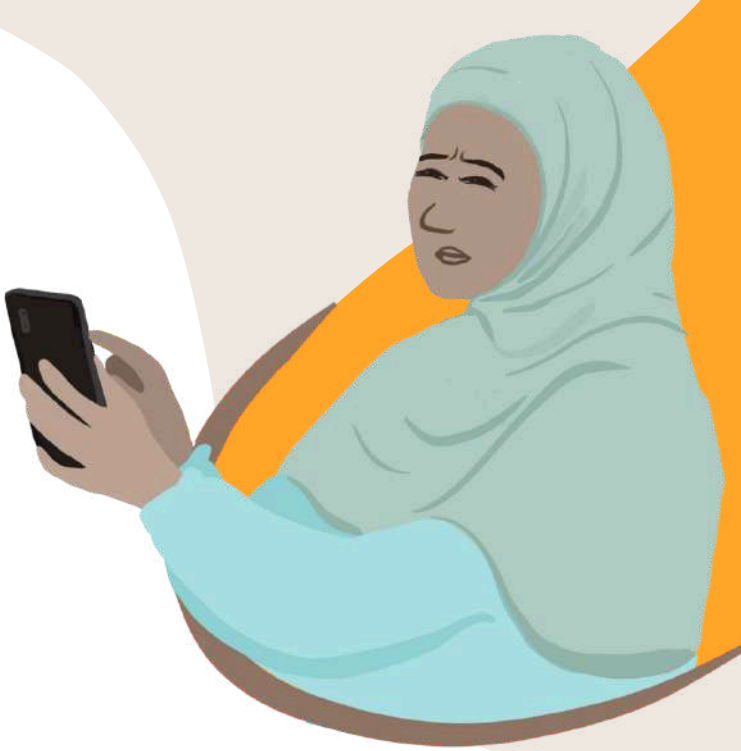
If your patient has any other eye problems: difficulty seeing things far away, painful or red eyes, or if they still struggle to see up close even with these spectacles, please refer them to your local eye care provider.

When reproducing this poster, ensure that this box is 10cm in length. It is available online at bit.ly/4aDpVXN or use the QR code.

10 CM

Do you have trouble seeing your phone?

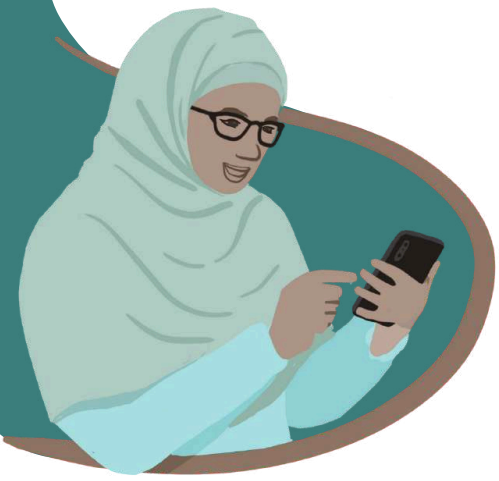
Do you struggle to see when reading?



If the answer is yes...

You might need near-vision glasses

Try some on at different strengths



+3.00 higher strength
+2.50
+2.00
+1.50
+1.00 lower strength

Near-vision spectacles are only used for close-up tasks; they **must not** be worn for driving.

Could you see better?
Did your vision improve?

If not, or if you have any other eye problems (painful or red eyes, or difficulty seeing things far away), please contact your local eye care provider.

When reproducing this poster, ensure that this box is 10cm in length. It is available online at bit.ly/4aDpVXN or use the QR code.

10 CM

Samit Sakib Gore
Director of Operations & Innovation: Vision Friend
Sakib Gore, Mumbai, India.

Buying high quality, affordable, near-vision spectacles

Near-vision spectacles need to be affordable, without sacrificing optical quality or durability.

There are a range of different spectacle types available for the correction of presbyopia, including prescription near-vision spectacles, ready-made near-vision spectacles, bifocals, and progressive addition lenses. Of these, ready-made near-vision spectacles, which have the same dioptre lens for both eyes, are by far the most affordable and readily available option.

The **WHO Summary Guide on Quality Standards for Spectacles**[1] makes recommendations regarding ophthalmic lenses and frames, ready-made spectacles for distance and near vision, and relevant ISO standards. Included in this is a recommendation that near-vision ready-made spectacles are marked with the spherical power, which allows users and clinicians to easily determine the strength of the lenses without the use of a focimeter. Depending on your region, additional quality standards may apply.

In contexts where prescription spectacles are provided, the quality requirements are naturally more complex, from the skill of the optometrist performing refraction, to the production of the prescription lenses. These components can be assessed using the **Q.REC (Quality of Refractive Error Care)** toolkit.[2]

Ready-made near-vision spectacles can be purchased from bulk suppliers and shipped via air or sea freight. In an informal review of six bulk optical suppliers in China in 2024, prices ranged from USD 0.43 to over USD 1.00 per pair, depending on supplier and purchasing volume. In India, 2024 prices from one of the largest wholesalers in-country ranged from USD 0.35–0.80 per pair.

Buyer's guide to presbyopia spectacles

The frames should be of good enough quality to be comfortable and to reduce the likelihood of accidental breakage.

Due to the natural progression of presbyopia, near-vision spectacles will need to be replaced at regular intervals (until the required dioptre stabilises). It is therefore important that ready-made near-vision spectacles are affordable enough so they can be replaced when needed.

In my experience, once someone has found a frame design they like, they tend to want to buy a replacement of the same colour and shape. To ensure consistency across orders, I recommend ordering from a verified manufacturer. If you notice a change in the colour or shape between orders, that means the supplier is most likely a reseller, not a manufacturer.

When ordering

1 Ask the supplier whether the lens has a protective coating, and what materials are used to make the frames. Some materials used to make frames are flexible, while others are more rigid; this affects both the cost and durability of the frame.
2 Confirm the minimum order quantity.
3 Prices should be transparent. Request a price breakdown that separates spectacle costs from import costs.
4 Request a sample batch and test it (see below), but expect minor variation in bulk orders.
5 Before you order a larger quantity, let the manufacturer know that you will be testing the spectacles when they arrive. I recommend you test at least 2% of the main order.

Basic quality tests that require no specialised equipment

Frames

1 **Check that the frame material** is what you ordered and paid for by performing a 'flex' test:

- Remove the lenses. Hold the front of the frame and bend it gently.
- TR90: bends and returns to its shape (Figure 1).
- Polycarbonate: bends slightly but may deform, snap, or turn white at the bending points (Figure 2).
- Acrylic: breaks easily or snaps at the bending points.

Figure 1 TR90 twists without breaking.

Figure 2 Polycarbonate may snap when twisted.

2 **Check the screws.** Are they too long, or too short? If so, the spectacles should be rejected. If a screw is too long, it can scratch the skin. If it is too short, the temple will loosen or fall off. Loose or rusty screws are one of the most common reasons spectacles fail in the first few months. If a screw is loose, it can be tightened, but if a screw is rusty, the spectacles should be rejected.
3 **Check the hinges.** If the temples feel wobbly, one or both hinges is loose or unstable. If the hinge has a spring, remove the lenses and gently stretch the arms outward. A good spring hinge should open smoothly and return slightly without resistance. Any cracking noises indicate poor-quality springs. Spring hinges give flexibility, but poor spring quality leads to early breakage.

Lenses

1 **Check for defects in the lens.** Hold the lens under bright light and rotate slowly. Defects become more visible at different angles. Check for any scratches, bubbles, uneven coating, haze or distortion.
2 **Check the lens fit.** Check if the lens fits in the rim, both with and without movement from the frame (such as opening and closing of the frames.) If the lens moves, it is not mechanically stable.

References

1 World Health Organization (2025). Summary guide on quality standards for spectacles. World Health Organization. **https://iris.who.int/handle/10665/381356**. License: CC BY-NC-SA 3.0 IGO
2 Quality of Refractive Error Care (Q.REC) toolkit: **q-rec.org**

Addressing presbyopia in rural central India: the Sadguru experience

Near-vision screening and spectacle dispensing were successfully integrated into existing outreach and vision centre services.

Subeesh Kuyyadiyil
Head, Community Opthalmology: Shri Sadguru Seva Sangh Trust, Chitrakoot, India.

Elesh Jain
CEO & Trustee: Shri Sadguru Seva Sangh Trust, Chitrakoot, India.

Ujjal Bhattacharya
Consultant – Grants and Programme Director, Vision Care Initiative: Shrimad Rajchandra Love and Care, Chitrakoot, India.

Pushependra Tripathi
Project Associate: Shri Sadguru Seva Sangh Trust, Chitrakoot, India.

Presbyopia is an age-related loss of accommodation that reduces near vision and interferes with everyday tasks.[1,2] National estimates indicate that about one-third of Indian adults aged ≥30 years have uncorrected presbyopia, corresponding to roughly 170–180 million people.[3] In Madhya Pradesh and Uttar Pradesh, where eye care remains limited and largely urban-centred,[4] this burden falls disproportionately on rural adults in their forties and fifties who rely on good near vision for livelihood and household activities such as reading farm records, stitching, sorting grains, counting money, and using mobile phones. Within this context, Sadguru Netra Chikitsalaya's rural eye-care programme records have consistently identified presbyopia as a leading cause of near-vision impairment at the primary-care level, exceeding early cataract, uncorrected hyperopia, and other causes.

Women wearing near-vision spectacles provided after presbyopia screening at a community-based eye care camp. INDIA

Rationale, planning, and strategy

Presbyopia is common in rural India and spectacle coverage remains low, resulting in a substantial unmet need.[6] Ready-made near vision spectacles are inexpensive and can restore functional vision immediately; presbyopia therefore represents a high-burden condition with an uncomplicated, scaleable solution. With support from Sarvamangal Family Trust, through the Shrimad Rajchandra Love and Care Programme, the Sadguru team have repositioned presbyopia from a secondary concern to a strategic programme priority by setting up the Vision Care Project joint initiative to conduct community-based presbyopia screening and provide free, ready-made near-vision spectacles in under-served rural areas. The initiative was specifically designed to integrate near-vision services into existing, routine services, without the need for additional infrastructure or staffing.

Programme planning was informed by outreach experience and service data. Teams observed that roughly one-third of adults attending cataract camps in Satna, Rewa, and Chitrakoot primarily reported near-vision difficulty rather than cataract-related symptoms. Camp and vision centre records confirmed this pattern across more than 20 outreach blocks, with historically low access to refractive services.

Rather than creating a separate, vertical programme, Sadguru launched a pilot programme that involved strengthening existing outreach and vision centre platforms in four villages in Satna district. The pilot included three models:

- **Outreach-based presbyopia camps.** Simple awareness messages about near-vision screening at existing eye camps were promoted via Sadguru's established rural outreach network, consisting of village leaders, self-help groups, and local NGOs. Rapid testing and same-day dispensing were found to be particularly effective for working adults and for women who may not be independent in seeking eye care, due to social barriers, limited literacy, or lack of confidence to travel alone.
- **A vision centre 'near-vision first' pathway.** To increase walk-ins at vision centres, a presbyopia-focused communication package was introduced. Banners, posters, and leaflets in markets and panchayat offices encouraged adults to attend for a quick near-vision check. This simple message increased self-referrals and helped normalise presbyopia care within routine vision centre services.
- **Screening at large religious and community gathering.** Temples, religious fairs, and festivals were used to reach older adults who were reluctant to visit clinics. This approach was efficient for high-volume mobilisation and first-time spectacle provision; it was less suited to systematic follow-up.

All three models in the pilot programme followed the same standardised clinical protocol as part of a structured screening and triage pathway, which ensured that near-vision spectacle dispensing remained embedded within comprehensive eye care.

- Adults aged 35 years and older underwent near-vision testing using an N-chart at 40 cm, a minimum distance-vision check (using a Snellen or E chart), and a torchlight anterior-segment examination.
- Adults whose vision improved with plus lenses (+1.00 D to +3.50 D) and who showed no signs of ocular pathology were classified as having uncomplicated presbyopia and received ready-

made readers there and then.
- Those with reduced distance vision, persistent symptoms, or suspected ocular disease were counselled and referred (through established outreach mechanisms) to vision centres, where they underwent full refraction, slit-lamp examination, and intraocular pressure assessment, with onward referral to the base hospital when indicated.

Early findings of the pilot programme shaped the final strategy. Same-day dispensing, convenient scheduling aligned with self-help group meetings and weekly markets, and simple local messaging around "*nazdeek ka kaam*" ("near work") markedly increased uptake. Mobilisation through community leaders and trained health volunteers improved women's participation and enabled rapid, reliable delivery of presbyopia care within routine rural eye health services.

Procurement, pricing, and quality assurance

Spectacles were centrally procured to ensure a reliable supply chain. A standard range of plus lenses (+1.00 D to +3.50 D) simplified logistics while covering most people's needs. Each batch underwent checks for lens power, frame strength, and scratch resistance, and defective lots were returned to suppliers. Depending on the setting and funding support, spectacles were provided free of cost or at a nominal subsidised price (approximately INR 100–200 per pair) to maintain affordability and minimise financial barriers.

Results and measurable outcomes

Over ten months, the programme screened 824,769 adults across 24 districts in Uttar Pradesh and Madhya Pradesh. Of those screened, 37% reported near-vision difficulty. Among those screened, about 21.4% had uncomplicated presbyopia requiring ready-made readers, while the remainder had early cataract, uncorrected refractive error, or other ocular disease and were referred appropriately. After adjustments in timing and messaging, women comprised around 45% of spectacle recipients. In total, 176,543 read-made spectacles were dispensed on the same day.

A brief compliance survey of approximately 5% of recipients (around 8,800 of those who received spectacles), was conducted through phone interviews and selected field visits. This indicated that more than 76% of recipients continued to use their spectacles at three months. Users reported improved ability to read, stitch, maintain accounts, and use mobile phones, with perceived gains in both productivity and quality of life.

Patient vignette

Vidya Namdev (name changed), 56-year-old tailor, had begun losing customers as her stitches became uneven, which she assumed was an unavoidable consequence of ageing. At a presbyopia camp, she was found to have reduced near vision and was provided with +1.50 D readers. She experienced immediate improvement and, with restored near vision, her stitching accuracy, speed, and confidence returned, allowing her to retain clients and income.

Key lessons and recommendations

Integrating presbyopia services into existing outreach and vision centre platforms was efficient, scalable, and cost-effective, and did not require major new infrastructure. Using the existing outreach network meant that a separate stand-alone system was unnecessary. Simple awareness messages, convenient scheduling, particularly for women, on-the-spot dispensing, and centralised, quality-assured procurement were critical for high uptake and sustained use.

Programmes in similar rural settings can replicate this model by incorporating routine near-vision screening into existing eye care activities, maintaining a basic stock of ready-made readers at outreach camps and vision centres, and mobilising communities through local leaders and frontline workers. Providing spectacles free of cost, or at low cost, supports rapid adoption and helps reduce the large burden of uncorrected presbyopia in low-resource settings.

References

1 Patel I, West SK. Presbyopia: prevalence, impact, and interventions. Community Eye Health J. 2007;20(63):40–41.

2 Adeyemi O, Bekibele CO. Prevalence, correction coverage, unmet need and impact on the quality of life of presbyopia among market traders in Ibadan, Nigeria. Afr J Biomed Res. 2020;23(Suppl 1):75–79.

3 Jain BK, Jain E, Kuyyadiyil S, Sen A, Sood D, Bajaj A. High volume and high quality eye care – Bridging the paradox. A unique rural based approach – The Chitrakoot model. Indian J Ophthalmol. 2020;68(2):294–298. **https://doi.org/10.4103/ijo.IJO_61_20**

4 Sheeladevi S, Seelam B, Nukella PB, Borah RR, Ali R, Keay L. Prevalence of refractive errors, uncorrected refractive error, and presbyopia in adults in India: A systematic review. Indian J Ophthalmol. 2019;67(5):583–592. **https://doi.org/10.4103/ijo.IJO_1235_18**

6 Malhotra, Sumit et al. "Prevalence of presbyopia, spectacles coverage and barriers for unmet need among adult population of rural Jhajjar, Haryana." Journal of family medicine and primary care vol. 11,1 (2022): 287-293. **doi:10.4103/jfmpc.jfmpc_1148_21**

Key community eye health messages

When designing presbyopia services in the community:

- Treat presbyopia as a productivity and participation issue, not only a clinical condition
- Link services to everyday activities such as reading, mobile phone use, and livelihood tasks
- Offer screening and dispensing at the same visit, as follow-up is often low in community settings.

When improving access and uptake:

- Actively address gender and social barriers, as women often report near sight problems later despite higher need
- Use task-based demonstration, allowing people to try spectacles during real activities to improve acceptance
- Ensure services are affordable and provide clear options for replacement, as unmet need often persists due to cost and access gaps.

When ensuring continuity and quality of care:

- Plan for changing needs over time, as people will require stronger lenses with age
- Integrate presbyopia into primary health care rather than treating it as a one-time outreach activity
- Establish clear referral pathways for people with persistent difficulty or suspected eye conditions.