Reading glasses dispensed by health workers boost income and quality of life in rural Bangladesh

The THRIVE - Tradespeople and Hand-workers Rural Initiative for a Vision-enhanced Economy - trial is the first randomized controlled trial to examine the link between glasses and income. The study was carried out in rural Bangladesh across a range of occupations including agriculture, artisan craft, skilled trades, and micro-enterprise.

THRIVE demonstrates that a pair of reading glasses increases the average median income of people in low-income communities by 33.4%.

In addition to measuring the impact of reading glasses on worker income, the study highlighted the opportunity to increase access to vision care by training non-medical personnel such as community health workers to conduct basic sight tests and dispense ready-made reading glasses.

THRIVE’s focus on income builds upon the 2018 PROSPER trial which quantified the productivity gains of clear vision. PROSPER revealed reading glasses increased productivity among tea workers by 21.7% on average and 31.6% for those over age 50, measured in kilograms picked.

Methodology

THRIVE was carried out in 59 villages across 15 districts in Bangladesh. 824 study participants with uncorrected presbyopia were enrolled, aged 35-65 years old. Median age was 47. The gender split was 52% male and 48% female. 423 participants were randomized to receive immediate free reading glasses (intervention), and 401 were randomized to receive glasses eight months later (control). Non-medical personnel conducted the vision screening and glasses dispensing without the involvement of optometrists.
Key findings

**Increased income**
In the group receiving reading glasses (intervention), monthly median income increased from US$35.30 to $47.10 within eight months - a difference of 33.4%. In the group that needed but did not have reading glasses (control), median income did not change.

**Enabling returns to work**
Income increases were more likely among those who were economically inactive at the start of the study. This suggests that community-based access to reading glasses helped people return to work.

**Improved quality of life**
Wearers experienced a 16% improvement on a near vision quality of life index. The index measures factors such as people’s sense of independence and ease of doing daily tasks, such as reading a mobile phone display and seeing the food they are preparing and eating.

**Reading glasses are not just for reading**
Only 35% of participants in the study were literate. There was no significant difference in the income impact or the QOL impact for those who were or were not literate. Reading glasses help people accomplish work and household tasks such as sorting grain, threading a needle, or weaving.

**Widespread blurry vision**
The trial found high levels of blurry near vision (presbyopia) in rural Bangladesh. Of those aged 35-65 years, 50% presented with presbyopia.

**Task sharing to reach more people**
The trial demonstrated that non-medical personnel screening for and correcting presbyopia with reading glasses significantly improved income. As such, THRIVE affirms that task-sharing with trained personnel, such as community health workers, is a viable solution to improve livelihoods and serve more people where specialists are not available.

A solution to fight poverty
More than a billion people globally don’t have the glasses they need to see clearly. Age-related blurry vision (presbyopia) is the leading cause of vision impairment globally. Without reading glasses more than 826 million people have difficulty performing routine tasks and maximizing their income earning potential.

Global eyeglasses coverage target
Following the United Nations 2021 resolution on eye health the World Health Assembly set targets to address the leading causes of vision impairment and blindness: 40% increase in effective coverage of refractive error, and 30% increase coverage of cataracts by 2030.

About VisionSpring
Founded in 2001, VisionSpring is the social enterprise accelerating the use of eyeglasses in emerging and frontier markets. Its mission is to increase lifelong earning, learning, safety, and well-being through eyeglasses for people vulnerable to poverty. As of 2023, VisionSpring corrected the vision of more than 12 million people living on less than $4 per-day, unlocking more than $2.6 billion in income earning potential.

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