

# **A conversation with Dr. Nathan Congdon, Ella Gudwin, Aminah Yoba, and Graeme MacKenzie, November 12, 2018**

## **Participants**

- Dr. Nathan Congdon – Ulverscroft Chair of Global Eye Health, Queen's University Belfast; Director of Research, ORBIS International; Professor of Preventive Ophthalmology, Zhongshan Ophthalmic Center
- Ella Gudwin – President, VisionSpring
- Aminah Yoba – Development Officer, VisionSpring
- Graeme MacKenzie – Director of Research, Clearly
- Amar Radia – Senior Research Analyst, GiveWell
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**Note:** These notes were compiled by GiveWell and give an overview of the major points made by Dr. Nathan Congdon, Ella Gudwin, Aminah Yoba, and Graeme MacKenzie.

## **Summary**

GiveWell spoke with Dr. Congdon, Ms. Gudwin, Ms. Yoba, and Mr. MacKenzie as part of its investigation into the distribution of glasses to improve worker productivity. Conversation topics included VisionSpring's core work on glasses, potential research on the impact of glasses on road safety, the cost of distributing glasses, and philanthropic approaches to funding vision care.

## **VisionSpring's core work on glasses**

### **The Reading Glasses for Improved Livelihoods program**

VisionSpring and BRAC jointly initiated the Reading Glasses for Improved Livelihoods program in Bangladesh in 2006, training 50 community health workers (CHWs) and selling 800 glasses in the first year of operation. The program has since undergone a national scale-up, now screening over one million individuals and selling 180,000 glasses annually. Overall, the program has sold 1.3 million glasses and trained 25,000 CHWs, who earn a commission for each pair of glasses they sell.

Of individuals that purchase glasses through the Reading Glasses for Improved Livelihoods program, the majority (74%) are adults in their prime working years between the ages of 35 and 65, 63% are women, 68% live on less than \$2.50 per day, and 75% are first-time users of glasses.

### *Randomized-controlled trial with BRAC*

VisionSpring and BRAC recently conducted a randomized-controlled trial (RCT) in Bangladesh, which analyzed the impact of community-based distributions of glasses on worker productivity and income. The target population of the study included a wide variety of occupations, including farmers, weavers, barbers, tailors, and jewelry makers.

The data is in the process of being cleaned and analyzed. VisionSpring and BRAC expect the data to add to the growing evidence base on vision and workplace productivity. VisionSpring hopes to have the study published in 2019.

### **Vision Access Projects: Clear Vision Workplaces**

VisionSpring's "Vision Access Projects" encompasses the organization's work to provide vision screenings and glasses to consumers. Glasses are purchased by consumers (often at a subsidized cost), employers, or through charitable sponsorship from corporations.

VisionSpring is currently working with 34 companies globally to provide vision screenings in communities and in workplaces (particularly garment factories). Early demographic statistics from workplace screenings suggest low literacy levels, with only 20-50% of workers having completed primary school, and high rates of uncorrected refractive error and presbyopia. An average of 42% of workers were found to need glasses (highly correlated with age). Of those workers needing glasses, 71% did not have them.

VisionSpring has received strong positive feedback from factory managers due to increases in productivity of workers after receiving glasses. Employees have self-reported improvements in their work and quality of life.

#### *Prospective study focused on the garment sector in India*

At approximately age 35, when presbyopia (near vision loss) typically begins to manifest, many workers exit the garment manufacturing industry. VisionSpring, together with Dr. Nathan Congdon and Clearly, have initiated a two-pronged study that will analyze the impact of glasses on worker productivity and workforce retention, specifically in garment factories in India. The workforce retention component of the study will involve follow-up data collection over a period of two years.

The employers and factories for the study have been identified, and funding is currently being secured. VisionSpring, Clearly, and Dr. Congdon are currently developing the protocols for the study and hopes to commence in the spring of 2019.

### **Potential research on the impact of glasses on road safety**

Dr. Nathan Congdon has discussed the possibility of conducting a study of the impact of glasses on road safety with partners in academia and industry. This ties directly to Sustainable Development Goal 3 (Health and Well-Being), Target 3.6 ("By 2020, halve the number of global deaths and injuries from road traffic accidents"). He hopes to submit an application for funding in February of 2019.

### **Cost of distributing glasses**

Clearly and VisionSpring's PROSPER study, which analyzed the impact of glasses on worker productivity, achieved a total cost of \$10 for each pair of glasses distributed. However, the intervention delivered in the PROSPER study was highly particular

and intensive and targeted a small number of workers. VisionSpring has found that its general programming in workplaces is able to achieve a cost averaging \$5 per person screened (the cost ranges from \$4.40 to \$6.60 depending on the setting). The cost per person in glasses varies based on the extent to which fixed costs are spread over workers needing glasses, which can be 25% of workers in a garment factory with a younger workforce and 75% of workers in an older basket weaving or artisan group. The cost of \$5 per person screened includes optometrists, vision screenings for all workers (including low-level positions such as security guards and high-level positions such as senior management), provision of both reading and prescription glasses for all those in need, and data collection and analysis.

### **Willingness of workers to purchase glasses**

The costs of VisionSpring's Clear Vision Workplace programs have been paid for by corporations. However, the PROSPER study indicated that tea workers would be willing to purchase glasses for \$5-6, and VisionSpring's recent assessment of garment factories in India suggested that workers would be willing to purchase glasses for \$6.80.

### **Quality of glasses distributed**

Many glasses available in the local market for purchase are low-quality products with short life spans. The glasses that VisionSpring delivers include frames made from TR90 (an extremely strong and flexible thermoplastic material), high-quality acrylic lenses, and spring hinges, making the glasses highly durable. The glasses are intended to last for at least two years, although the life span could be shortened by scratches from, for example, metal sari threads.

### **Challenges to scaling**

One of the main obstacles to scaling is the limited availability of optometrists to conduct full refractions. However, VisionSpring believes that this obstacle can be averted by training low-skilled workers to administer preliminary vision screenings in order to identify those workers in need of seeing the optometrist for a refraction, as well as those who simply need a pair of non-prescription reading glasses. In the U.S. and Europe, reading glasses (magnifiers up to a power +3) are an over-the-counter product and do not require an optometrist. However, there can be regulatory barriers to over-the-counter distribution in some developing countries. In the future, as hand-held refractive devices become more accurate and cheaper, low-skilled workers could use handheld devices to accurately diagnose refractive errors that require prescription glasses under the supervision of an optometrist. VisionSpring would like to investigate the possibility of moving to a lower-cost distribution system in more depth.

### **Philanthropic approaches to funding vision care**

There are a few different methods for large donors to have a significant impact on global eye care, including:

- **Strategic investments:** Instead of investing dollars directly in the distribution of glasses, philanthropists interested in livelihoods, corporate sponsors, and brands could make strategic investments in vision care for workers. Funds could be used to incentivize manufacturers that are interested in providing vision screenings and glasses for their workers with a 50/50 cost-sharing proposal. Donors and sponsors could also incentivize employers who may be less inclined to provide vision care to employees with a proposal to transfer the costs gradually over time, whereby the first year of vision screenings and glasses would be financed solely or mostly using philanthropic funds, and if the initiative succeeded in increasing worker productivity, the cost of screenings and glasses would gradually be transferred onto employers. Such an approach could be negotiated either bilaterally where a philanthropist or brand has pre-existing relationships with manufacturers, or with an implementing organization that can serve as the intermediary to the manufacturers.
- **Performance-based fund:** An organization could create a pool of funding from large philanthropists to serve as the 'risk capital' for financing vision screenings and glasses to factory workers at scale. Implementing organizations would conduct the workplace programs, and an independent evaluator would substantiate the number of workers acquiring glasses and improvements in eyeglasses coverage rates among factory workers pre- and post-intervention. A third party—perhaps a government ministry, multi-lateral agency, or a group of corporations and brands—would pay for the effective services. This approach borrows from the principles of a social impact bond, but without the extensive fees and costs of a formal bond.

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