Governments could add thousands of millions of dollars to the global **economy** simply **by inve sting**
in
eye
examinations
and the provision of
glasses
for some 703 million people who need them, according to a study published this month in the *Bulletin of the World Health Organization*
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The study estimates that 65 000 more optometrists, ophthalmologists, optical dispensers and other eye-care professionals would be needed to provide these services and that it would cost between US$ 20 000 million and US$ 28 000 million to train them and set up and run the eye-care facilities needed.

"This is a drop in the ocean compared with the US$ 202 000 million in estimated losses each year in global gross domestic product due to the fact that these 703 million people are living with uncorrected refractive error," says co-author Professor Brien Holden at the University of New South Wales in Australia.

Refractive error is a common eye disorder that results in blurred vision. The four main forms are myopia (near-sightedness), hyperopia (far-sightedness), astigmatism (distorted vision) and presbyopia (near vision impairment, which makes reading without glasses impossible for many).

Uncorrected refractive errors are the most common cause of vision impairment worldwide and the second most common cause of blindness. These cannot be prevented but can be diagnosed through an eye examination and treated with glasses – costing as little as US$ 2 a pair – contact lenses or surgery.

"Improving people's vision could generate considerable economic benefits especially in low- and middle-income countries, where these problems are to a large extent not corrected, and could make a major contribution to global development," he says.

Loss in productivity tells only part of the story, Holden says: "Children and adults with uncorrected refractive error face many health, economic and social effects, including poor vision, reduced education and employment opportunities, and social isolation."

Co-author on the paper, Kevin Frick, professor of health economics at Johns Hopkins Bloomberg School of Public Health, says he hopes the results of the study will send a strong signal to governments around the world. “Governments face tough decisions over how best to use scarce resources. Now that we have evidence for the economic benefits of correcting refractive error, investing in eye care should be one of the easier decisions,” says Frick.

“Investing in dedicated eye-care professionals is key to providing accessible and affordable refractive services at primary health care level,” says Dr Silvio Mariotti, an expert in blindness prevention at WHO.

Due to the lack of refractive services, an estimated 119 million people are visually impaired. Effective solutions to this problem exist but need to be made accessible to all those in need. The study provides additional evidence of the importance of developing human resources for the prevention of blindness as required by the *WHO action plan for the prevention of avoidable blindness and visual impairments 2009–2013* .

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The *Bulletin of the World Health Organization* is one of the world’s leading public health journals. It is the flagship periodical of WHO, with a special focus on developing countries. Articles are peer-reviewed and are independent of WHO guidelines. Abstracts are now available in the six official languages of the United Nations.

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