

TRANSFORMING LIVES AN INVESTMENT CASE FOR EYE HEALTH



SNAPSHOT REPORT

 **IMPACTING
1 BILLION LIVES**



The Fred Hollows
Foundation



**VICTORIA
UNIVERSITY**

VISES
VICTORIA INSTITUTE OF
STRATEGIC ECONOMIC STUDIES

CEO FOREWORD

Investment in eye health transforms millions of people's lives on a global scale. Restoring a person's sight creates pathways for success at school, the ability to earn an income and a greater quality of life.

Now, world-first research by The Fred Hollows Foundation in partnership with Victoria University's Institute of Strategic Economic Studies, demonstrates the urgent need for greater investment in eye health programs for the two leading causes of blindness and vision impairment, cataract and refractive error (in this case, myopia and presbyopia).

On average, every \$US1 invested in treating cataract delivers an economic return of \$US20.50, confirming that cataract surgery provides among the highest return on investment of any disease interventions modelled in similar investment cases. Similarly, myopia treatments return on average \$US10.80 and presbyopia \$US8.

This demonstrates what we all know – that investment in eye care has a great return.

Currently at least 1 billion people globally have a vision impairment that could have been prevented or has yet to be addressed, including 43 million people who are blind.

If we don't act now, by 2050 it is estimated that more than 1.7 billion people will be living with avoidable vision impairment.

The World Health Assembly (WHA) has set the global agenda for eye health to 2030 and commits member states to including eye care as an integral part of Universal Health Coverage.

This means embedding eye health in mainstream health plans, strategies and budgets and implementing programs that place the patient at the centre of care.

More than 90 percent of vision loss is preventable or treatable and we can address it using highly cost-effective interventions we know will work.

As our founder Fred Hollows said: "Every person should have the right to good eye care". We now have the evidence to show investing in eye health also makes good economic sense.

By working together across government, non-government, philanthropy and the private sector we can re-double efforts to scale up programs to treat cataract and refractive error as a matter of urgency.

Now is the time to step up our investment in eye health.

Ian Wishart
CEO



THE INVESTMENT CASE

This world-first research by The Fred Hollows Foundation and Victoria University's Institute of Strategic Economic Studies produces an investment case for scaling up programs to reduce blindness and vision impairment globally.

Our model focuses on the two leading causes of blindness and vision impairment – cataract and refractive error (namely, myopia and presbyopia) and measures the costs and benefits of treatment across 19 of the more than 25 countries where The Foundation works.

It calculates the cost associated with treating individuals with cataract and refractive error in order to meet the World Health Assembly targets (WHA 2021) by 2030 and compares this cost with the associated economic benefits.

The benefits of restoring sight include increased labour force participation and productivity, and improved education and learning. The benefits calculated in this model focus on the economic returns alone and, as such, are conservative.

IT'S TIME TO ACT. These findings call for greater collective investment by government, non-government, philanthropy and the private sector to meet the 2030 global eye care targets.



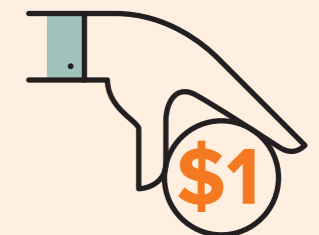
THE EVIDENCE

Every dollar invested in treating cataract delivers an **economic return of \$US20.50.**

Every dollar invested in treating myopia delivers an **economic return of \$US10.80.**

Every dollar invested in treating presbyopia delivers an **economic return of \$US8.**

Every dollar invested in the two leading causes of blindness and vision impairment delivers an **economic return of \$US9.40.**



**INVESTED
IN CATARACT
TREATMENT**



**\$20
ECONOMIC
RETURN**



THE 19 COUNTRIES INCLUDED IN OUR MODEL WERE:

Afghanistan, Bangladesh, Burundi, Cambodia, China, Eritrea, Ethiopia, Indonesia, Kenya, Lao PDR, Myanmar, Nepal, Pakistan, Palestine, Papua New Guinea, Philippines, Rwanda, Timor-Leste and Vietnam.



CATARACT

Cataract is the leading cause of blindness worldwide and affects over 100 million people, from older adults to children and younger people.

In most cases, cataract is easily treated with surgery and people experience significant improvement in their vision. Cataract surgery is very effective and one of the most common surgeries performed globally.

The cost of cataract surgery can vary by country and the type of surgery performed. However, the benefits of cataract surgery consistently produce a net positive return on investment (ROI) in all countries included in our analysis.

Indeed, cataract surgery provides among the highest ROI of any disease interventions modelled in similar investment cases.

TO ACHIEVE THE WHA GOALS BY 2030

- = \$US28.4b investment
- = 39.9m cataract patients treated
- = 117.9m years of sight saved



MYOPIA

Myopia, also known as nearsightedness, is the most common eye condition in the world affecting over 161 million people. Treatment typically includes glasses, contact lenses, and in some cases surgery. New treatments are also being researched.

The incidence of myopia in East Asia is expected to rapidly increase, particularly among schoolchildren.

TO ACHIEVE THE WHA GOALS BY 2030

- = \$US67.9b investment
- = 52.7m myopia patients treated
- = 282.8m years of sight saved



PRESBYOPIA

Presbyopia is a condition that affects everyone as they get older, making it difficult to focus on objects or words up close, such as reading. Like myopia, the main treatments are glasses, contact lenses or surgery.

With an ageing population worldwide the prevalence of presbyopia is expected to rapidly increase.

TO ACHIEVE THE WHA GOALS BY 2030

- = \$US240.8b investment
- = 232.9m presbyopia patients treated
- = 223.2m years of sight saved



SUB-SAHARAN AFRICA

BURUNDI, ERITREA, ETHIOPIA, KENYA, RWANDA

The estimated average ROI for cataract surgery is especially high in Sub-Saharan Africa (23.4), almost three points higher than the average ROI across all countries included in the model (20.5).

Of all 19 countries included in the model, the estimated ROI for cataract surgery was highest in Kenya (52.1), which also had among the highest ROI for treatment of myopia (15.3) and presbyopia (13.1).

CASE STUDY: UMANZI – KENYA

Umanzi from the Kwale region of rural Kenya had struggled with her vision for almost her entire life.

A student at tailoring school, Umanzi lost her sight as a result of cataract and could no longer thread a needle. She lost her livelihood and the ability to see her two young children grow up.

With support from The Fred Hollows Foundation, Umanzi was taken to Kwale Eye Centre for cataract surgery.

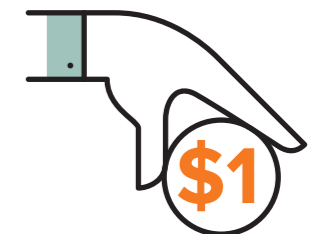
“The moment the patch was removed, I felt I had come from a completely different world... my life changed,” Umanzi said. “The first thing I wanted to see was my children’s faces.”

Umanzi can now work as a tailor and support her family.

“Right now, I am able to do house chores with much ease. I can clean, fetch water and get to cook for my family even at night,” Umanzi said.

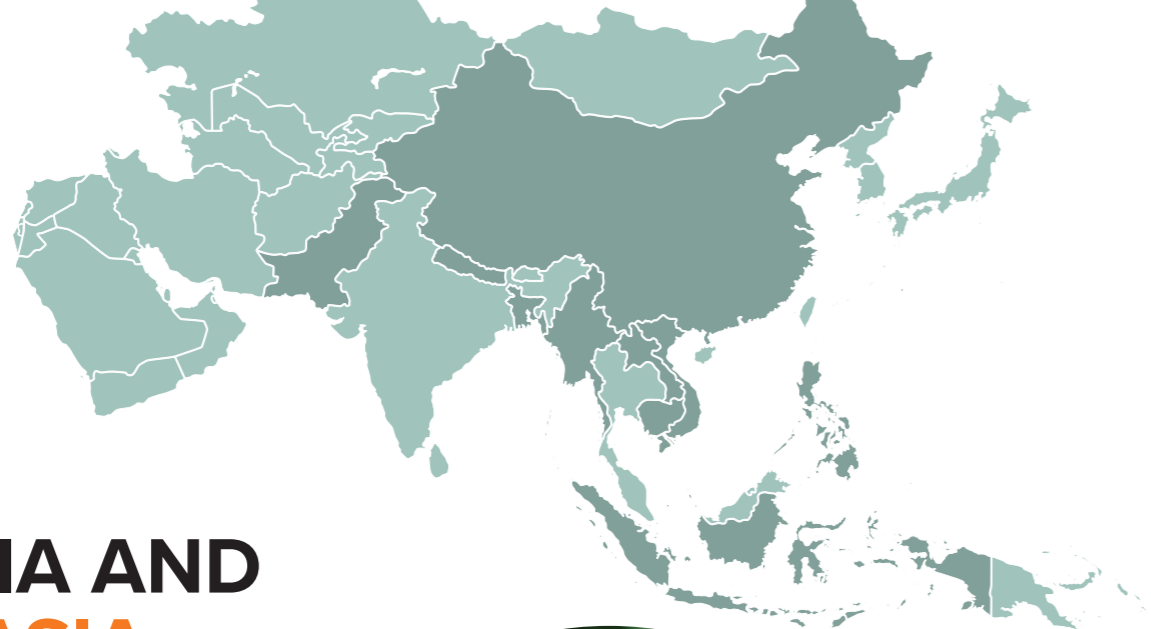


PHOTO: MICHAEL AMENDOLIA



INVESTED IN CATARACT TREATMENT IN KENYA





EAST ASIA AND SOUTH ASIA

BANGLADESH, CHINA, NEPAL, PAKISTAN

The estimated average ROI for treatment of myopia was particularly high in China (22.1), almost double the average of all countries included in the model (10.5). The ROI for cataract surgery was high in Nepal (24.7) and Bangladesh (19.4), while the highest ROI for myopia and presbyopia treatment in South Asian countries was in Pakistan, with estimated ROIs of 15.7 and 14.9 respectively.



CASE STUDY: SHRADHDHA – BANGLADESH

Six-year-old Shradhdha from Barishal in Bangladesh was losing her eyesight and had trouble seeing the classroom board at school.

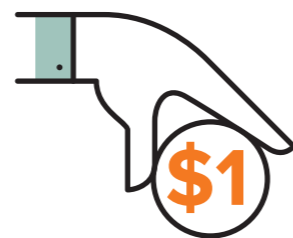
Fortunately, her condition was identified at an eye screening at her school, supported by The Fred Hollows Foundation and Noor Dubai Foundation.

An ophthalmologist advised Shradhdha's parents that she had myopia (an uncorrected refractive error) and prescribed her a pair of glasses.

In Bangladesh, the leading cause of moderate and severe vision impairment is uncorrected refractive error and many children are not treated because of financial hardship and poverty. Delaying treatment for myopia can lead to further vision loss.

This is why The Fred Hollows Foundation and Noor Dubai Foundation provide children with free eye exams and treatment.

Shradhdha is happy that she can now read notes on boards, watch television from a distance and prepare her own meals.



INVESTED IN MYOPIA TREATMENT IN PAKISTAN



PHOTO: KM ASAD

SOUTHEAST ASIA

CAMBODIA, INDONESIA, LAO PDR, MYANMAR, PHILIPPINES, TIMOR-LESTE, VIETNAM

The estimated ROI for cataract surgery in Lao PDR (42.1) was second largest of all countries included in the model, contributing to a large average across Southeast Asian countries (22.4). Similarly, the estimated ROIs for treatment of myopia (33.2) and presbyopia (21.9) in Lao PDR showed the highest ROI of any country included in the analysis.

CASE STUDY: BOUNHOME – LAO PDR

At 84 years old, Bounhome from the Sangthong district in Lao PDR maintains a busy life, working with his hands.

But three years ago, his vision deteriorated and he could no longer do the things he enjoyed, like repairing fishing nets.

His life changed when an eye screening team, supported by The Fred Hollows Foundation and funded by the New Zealand Embassy, arrived in his village.

The screening team discovered Bounhome had cataract, and he learned that it could be treated with a quick operation.

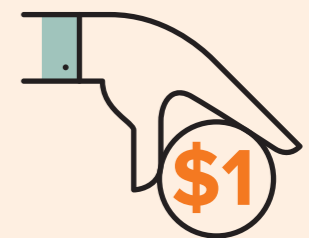
Bounhome received free cataract surgery at the National Ophthalmology Centre in the capital Vientiane.

After the operation, he was brimming with ideas on what he could do back at the village.

"I am excited to meet my friends, do my home gardening and create lovely handicrafts," Bounhome said.



PHOTO: BART VERWEIJ



INVESTED IN CATARACT TREATMENT IN LAO PDR





PHOTO: MICHAEL AMENDOLIA



NOW IS THE TIME TO ACT

Urgent action is needed to reach the WHA targets for cataract and refractive error by 2030.

This world-first research, by The Fred Hollows Foundation, based on proven treatments and programs for cataract and refractive error, confirms the investment needed to achieve this.

Further, it outlines the significant economic benefits to countries and their people globally.

The Fred Hollows Foundation is committed to ending avoidable blindness, but we can't do it alone. Urgent collective action is needed across government, non-government, philanthropy and the private sector to prioritise health system investments to meet the 2030 global eye care targets.

Eye health programs transform lives and the time to act is now.

To read the full **Transforming lives: An investment case for eye health** technical report, visit hollows.org/investmentcase

GLOSSARY

Investment case: An economic modelling technique that provides a basis for investment in programs that reduce the burden of disease.

Economic return on investment: A ratio of economic benefits divided by economic costs. In this case, the economic benefits are realised through increased labour force participation, productivity in the workforce, and schooling.

Years of sight saved: A measure of the health outcomes of our work. One year of sight saved is the equivalent to one person living for a year with full sight, when they would otherwise have been needlessly blind.

Cataract: A clouding of the lens of the eye which leads to a decrease in vision. Cataract is the leading cause of blindness worldwide.

Refractive error: An umbrella term for common eye conditions where the eye is shaped in such a way that light cannot be accurately focused on the retina.



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