

US \$244 billion lost annually because people don't have spectacles to correct myopia

1 May 2019



A community vision screening project delivers eye care and spectacles to help address avoidable vision impairment in Cambodia. Credit: Photo by Dean Saffron, Brien Holden Vision Institute

Vision impairment caused by uncorrected myopia cost the global economy an estimated US\$244 billion in lost productivity in 2015, according to a new study published in the March print issue of the scientific journal *Ophthalmology*.

The research estimated that 538 million people had [vision](#) impairment resulting from uncorrected [myopia](#), with the East Asia region, which includes China, bearing the greatest burden of [productivity](#) loss of around US\$150 billion. The South Asia and South East Asia regions also experienced significant productivity loss at over US\$30 billion each. This represents in excess of 1% of GDP in each of the three regions.

The authors say a one-off investment of around US\$20 billion would establish the services necessary to provide [vision correction](#) to all who

need it, potentially leading to a significant annual saving in productivity.

Co-author Tim Fricke, from Brien Holden Vision Institute says, "On [current trends](#) we expect there will be 2.6 billion people with myopia globally in 2020. While the majority will have access to corrective lenses such as spectacles and [contact lenses](#), enabling them to have good vision, current service capacity will leave well over half a billion people unable to access an [eye examination](#) and appropriate correction."

"The impact of vision impairment on lives can be substantial, including affecting employment, education and social interaction. This study captures one element of that, demonstrating the scale of the economic burden. For a single health condition to result in a loss of over 1% of GDP is enormously important. The findings also serve to highlight the potential value in funding the interventions needed to eliminate this unnecessary impairment."

A combination of factors explains the substantial burden in East Asia says Prof Padmaja Sankaridurg, Head of Myopia at Brien Holden Vision Institute "The high-density urban living with a focus on near based activities has resulted in high prevalence and also in a large number of people with inadequate visual correction."

Along with East Asia, other regions significantly impacted are South Asia and Southeast Asia, both estimated to suffer productivity loss of over US\$30 billion in 2015. The researchers conclude that people with myopia are "less likely to have adequate optical correction if they are older and live in a rural area of a less developed country".

"Peak international eye care and health agencies,

governments and international NGOs are working collaboratively to build the sustainable eye care systems that would address this need," says Prof Sankaridurg. "This research demonstrates a need for funding to be either prioritised or sourced, to allow the successful implementation of these efforts."

The researchers note that lost productivity resulting from myopia-related [vision impairment](#) represents only part of the overall economic burden of myopia. Direct costs such as expenses related to eye examinations, refractive corrections and managing pathological consequences of myopia such as MMD, and related opportunity costs, are not covered in their analysis.

"Even without considering these other costs our analysis shows that the burden is substantial and the savings by implementing the services needed would be significant," Prof Sankaridurg added.

More information: Kovin S. Naidoo et al, Potential Lost Productivity Resulting from the Global Burden of Myopia, *Ophthalmology* (2018). [DOI: 10.1016/j.ophtha.2018.10.029](https://doi.org/10.1016/j.ophtha.2018.10.029)

Provided by Brien Holden Vision Institute

APA citation: US \$244 billion lost annually because people don't have spectacles to correct myopia (2019, May 1) retrieved 30 October 2020 from <https://medicalxpress.com/news/2019-05-billion-lost-annually-people-dont.html>

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