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EYE CARE

Burden of blindness

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Globally, as many as 32.4 million people are blind, and 191 million have visual impairment, as per the figures of 2010. The number of people affected is higher in the more populated countries such as India (8.3 million) and China (5.2 million). Of the global population with visual impairment, 31 per cent live in India and 17 per cent in China. Next in the list are Pakistan and Indonesia. A decline has been noted in the prevalence of blindness in recent times, but in terms of absolute numbers it has increased, because of the rise in life expectancy.

Much of the load of blindness (80 per cent) has been attributed to causes that could have been prevented or corrected easily. Globally, the principal causes of visual impairment are Uncorrected Refractive Errors (URE) and cataracts—43 per cent and 33 per cent, respectively. The URE impacts educational opportunities, productivity and the overall quality of life. Recent data from the Global Burden of Disease Study 2013—which included 306 diseases and injuries for 188 countries—revealed that among eye diseases, URE had the greatest burden of 11.3 million disability-adjusted life years, or DALYs. (DALY is a metric to quantify burden of diseases and infections to aid comparison. One DALY can be thought of as one lost year of healthy life).

Having accessible and affordable eye care is not enough to eliminate URE. The major barriers include lack of awareness, availability, accessibility and affordability of services. All these need to be addressed to eliminate avoidable blindness, particularly in the case of neglected populations.

Several approaches are being tested in different

parts of the world. District health models used by many governments provide multi-level eye care, but often lack the appropriate infrastructure and trained human resources. Another major barrier is the delay in supply of affordable spectacles in remote areas.

The current cost of spectacle frames and lenses is often prohibitive. Corporate social responsibility can support social entrepreneurship efforts by making available low-cost, quality products. In several hospitals in India and Africa, where dispensing services have been enhanced, the uptake of eyeglasses has improved dramatically across urban and rural communities.

Revolutionary progress is being witnessed in information and communication technology and engineering, offering hope of enhancing access as well as quality of health care to the most neglected communities. Innovations addressing the cost barrier are being attempted at many places, notable among them is the folding phoropter from the media laboratory of Massachusetts Institute of Technology. The Folding Phoropter is a novel device developed by the LVPEI Center for Innovation, Hyderabad, to combat the lack of access to tools for refractive error screening. This device is eco-friendly, low-cost, high-quality and easy to use.

While research is on to prevent or minimise refractive error, novel health approaches to understand the high prevalence and management should be encouraged. The reports from the National Academy of Medicine and WHO are significant steps toward highlighting the burden

of visual disability, especially URE.

The goal of treating and managing refractive error is to enable a person to see, regardless of race, geography or resources.

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