Research Report

Leiden Model United Nations 2017
~ fresh ideas, new solutions ~

Forum: *World Health Assembly*
Issue: *Avoidable blindness and visual impairment in LEDCs*

Position: *President*

Introduction

Avoidable blindness is a major global public health problem. Approximately 400 million people around the world suffer from blindness or vision impairment from uncorrected distance refractive error, cataract and other conditions, while over 400 million people face significant near vision issues. Most of these people live in the developing world, where poor nutrition and limited access to eye care can mean a life limited by needless blindness. Vision impairment has huge social and economic impact on individuals, families, communities and even whole nations. What should be noted is the fact that 80 per cent of all blindness is preventable or treatable, and programs to tackle avoidable blindness are among the most cost-effective public health interventions available.

Definition of Key Terms

LEDCs
Less Economically Developed Countries.

Blindness
A lack of vision. It may also refer to a loss of vision that cannot be corrected with glasses or contact lenses.

Visual impairment
The functional limitation of the eye or eyes or the vision system.

Macular degeneration
An eye disorder that slowly destroys sharp, central vision. This makes it difficult to see fine details and read.

Glaucoma
A group of eye conditions that can damage the optic nerve. This nerve sends the images you see to your brain.

Cataract
A clouding of the lens of the eye.

Trachoma
A chronic contagious disease of the eye characterized by inflammation of the conjunctiva and cornea and the formation of scar tissue, caused by infection with the virus-like bacterium

Diabetic retinopathy
A condition that occurs in people who have diabetes. It causes progressive damage to the retina, the light-sensitive lining at the back of the eye. Diabetic retinopathy is a serious sight-threatening complication of diabetes.

Onchocerciasis
An eye and skin disease caused by a worm (filaria) known scientifically as Onchocerca volvulus. It is transmitted to humans through the bite of a black-fly.

Refractive errors
The shape of your eye does not bend light correctly, resulting in a blurred image. The main types of refractive errors are myopia (nearsightedness), hyperopia (farsightedness), presbyopia (loss of near vision with age), and astigmatism.

General Overview

Blindness is particularly devastating in the developing world, where people experience a significantly higher burden of blindness and vision impairment. Around 18 percent of the world's blind population lives in Africa, and less than 10 percent of people who require eye surgery actually receive it. In the least-developed countries, and in particular Sub-Saharan Africa, cataracts are responsible for half of all avoidable blindness. Other causes include glaucoma (15%), corneal opacities (10%), trachoma (6.8%), childhood blindness (5.3%), and onchocerciasis (4%). A simple, low-cost, one-time procedure can restore full sight to patients with cataracts — but in too many places those procedures are not yet available.

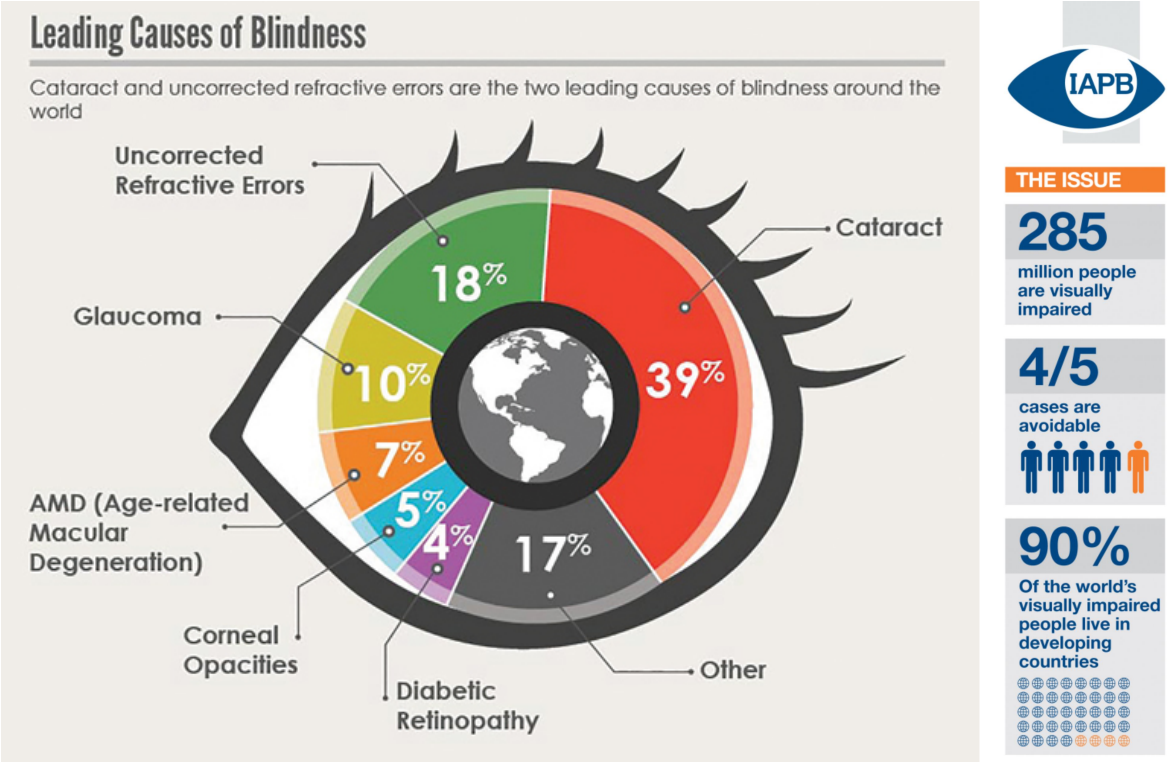
Many countries remain unable to meet the minimum requirements of ophthalmic personnel (two ophthalmologists or four ophthalmic assistants per million people), and it is common for entire provinces to lack even a single person trained in eye care. Also, there should be adopted a comprehensive approach to eye care services for children in Africa. While the WHO recommends a minimum number of one pediatric ophthalmology tertiary center per 10 million population, very few countries in Africa have reached this target, and the ones that have - created centers that are often inadequately equipped or understaffed. It is very alarming that up to half of all children die within two years of becoming blind, and if they menage to survive - blindness prevents them from receiving an education.

Blindness prevalence rates vary widely but the evidence suggests that approximately 1% of Africans are blind. Unless there is a dramatic turnaround in the number of eye health professionals trained, eye health in Africa will continue to deteriorate.

Research Report

Leiden Model United Nations 2017

~ fresh ideas, new solutions ~



Anatomical background

To fully understand this issue we need to find out how the eye works in the first place. Our eyes are like tiny cameras that process the light reflected off surfaces to create images we see. The iris (a muscle that acts like a lens) controls the size of the pupil (similar to aperture). If the light entering our eye is too bright, our iris reduces the size of the pupil. When it's dark, the iris in the pupil is enlarged or dilated, to maximize the amount of light entering the eye.

After receiving the correctly focused light, the retina's job is to analyze color, intensity and form to transmit these as electric impulses to the brain. The optic nerve connects various parts of our brain so that our emotions, experiences and visual impulses are combined together as an image that we not only see, but actually perceive. The image from the retina is actually upside down: our brains flips the image around so we don't get confused.

Previous Attempts to solve the issue

Global Action Plan for the Prevention of Avoidable Blindness and Visual Impairment 2014-2019
Its goals are to reduce vision impairment as a global public health problem and to secure access to rehabilitation for people with vision impairment. The initiative has the global target of reducing the prevalence of avoidable vision impairment by 25% from 2010 to 2019

WHO Global Initiative to Eliminate Avoidable Blindness, "VISION 2020: The Right to Sight" is the global initiative for the elimination of avoidable blindness, a joint program of the World Health Organization (WHO) and the International Agency for the Prevention of Blindness (IAPB)

The International Agency for the Prevention of Blindness (IAPB) is an international alliance of eye care organizations, has launched the "**IAPB Vision Atlas**" with the latest global data and evidence on blindness and vision impairment this World Sight Day (12 October 2017).

Possible Solutions

Increasing public awareness and utilization of eye health care services

Increasing availability and affordability of eye health care services

Increasing global political commitment to prevention of visual impairment

Increasing commitment and support of non-governmental organizations

More effective primary eye care activities as an integral part of the primary health care system which can contribute to the decline in vision loss through better services

Developing and implementing a comprehensive strategy to address eye health promotion, early prevention and detection of blinding diseases

Working closely with health ministries and other stakeholders in the region to enhance local capacity, thereby ensuring the long-term sustainability of eye health programs.

Developing training capacity and scaling up existing training (assessment of current training programs to determine gaps and areas for improvement).

Appendix/Appendices

https://www.iapb.org/

http://www.thelancet.com/journals/langlo/article/PIIS2214-109X(17)30393-5/fulltext?elsca1=tlxpr

https://medlineplus.gov/ency/article/003040.html

http://www.umkelloggeye.org/conditions-treatments/refractive-errors

http://www.vision2020australia.org.au/uploads/page/83/VforA-FINAL-20.9pdf.pdf

http://www.who.int/blindness/causes/en/

http://www.cureblindness.org/cause

https://www.hollows.org/au/eye-health/the-eye

http://www.visionmonday.com/multimedia/just-for-fun-2/article/the-state-of-the-worlds-eyesight/