



VISION IMPACT INSTITUTE™
Vision has a voice

The Underestimated Global Impact of Impaired Vision



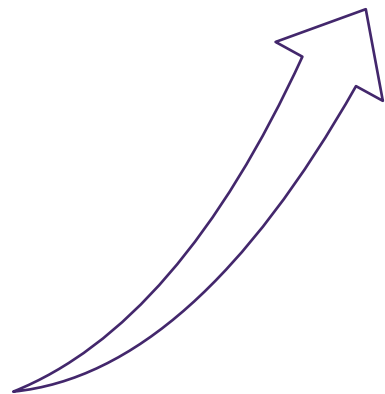
**Vision does not have the world's attention
But it should.**



The number of people requiring vision correction is growing... and ageing is a contributing factor

2030

6.0
billion



2012

4.2
billion

37% of elderly people
in the world
are visually impaired

UN, Essilor, BCG, 2010

Number of people requiring vision correction in the world

Essilor estimate



Vision impairment : The world's largest handicap

7 billion



60% need visual correction

4.2 Billion



Vision impairment : The world's largest handicap

7 billion



60% need visual correction

4.2 Billion



1.7

Billion

Corrected



2.5

Billion

Uncorrected



Vision impairment is a major stake

- of public health
- For the economy of the countries
- For the development and quality of life of human beings



A good vision
is a key lever
contributing to
most of the
Millennium Goals

The Millennium Development Goals

Eight Goals for 2015



1

Eradicate extreme poverty
and hunger >



5

Improve maternal health



2

Achieve universal primary
education



6

Combat HIV/AIDS, malaria and
other diseases



3

Promote gender equality and
empower women



7

Ensure environmental
sustainability



4

Reduce child mortality



8

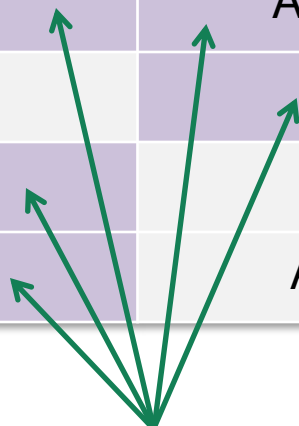
Develop a global partnership
for development

Source: the United Nations Development Program



Obstacles to correcting vision problems

Cultural	Economic
Lack of information	Access to the solution
Life style	Purchasing power
Peer pressure	Nutrition
Cultural beliefs	Access to the store



Areas where the Vision Impact Institute will act



One third of the worldwide population

GLOBAL

Global Scope of Poor Vision

An estimated 2.5 billion people with vision problems do not benefit from corrective measures.

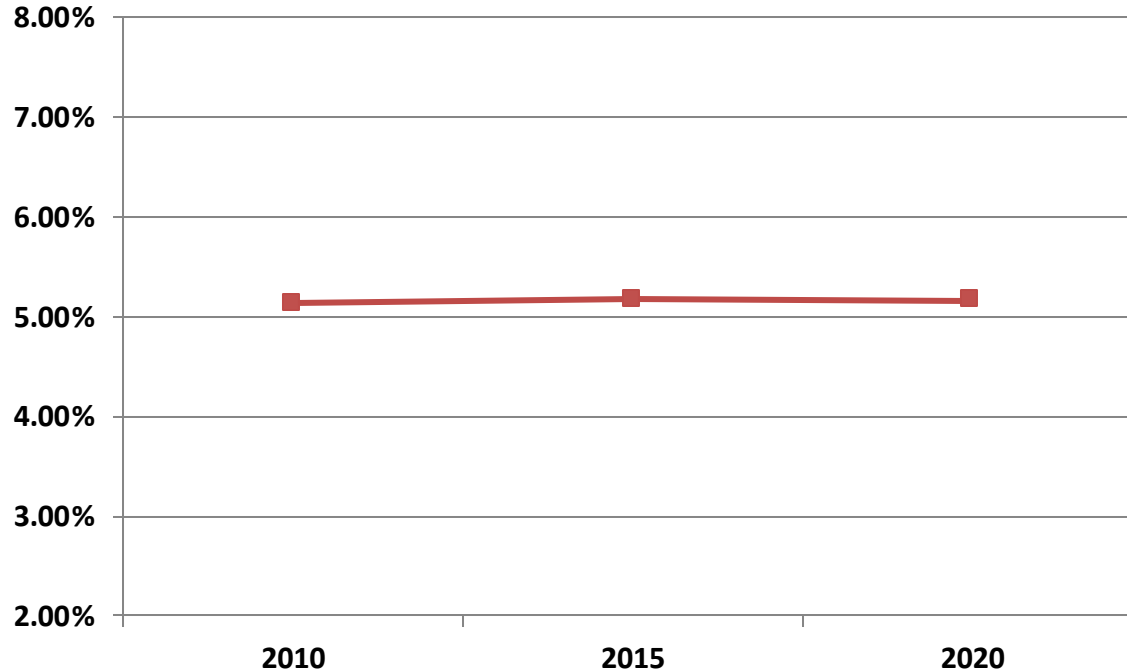


Source:

United Nations, Essilor



If we do nothing, nothing will change



Prevalence of Visual Impairment in Latin America

Forecasts WHO



Multiple Impacts are identified

Children

**School
failure
Status
Performance**

30%*

Seniors

**Isolation
Autonomy
Quality of
life
Dependance**

37%

Workers

**Accidents
Income
Self esteem
Reputation
Quality
Cost**

33%

Drivers

**Accidents
Safety
Autonomy
Job**

23%

Percentage of visually impaired people among total category

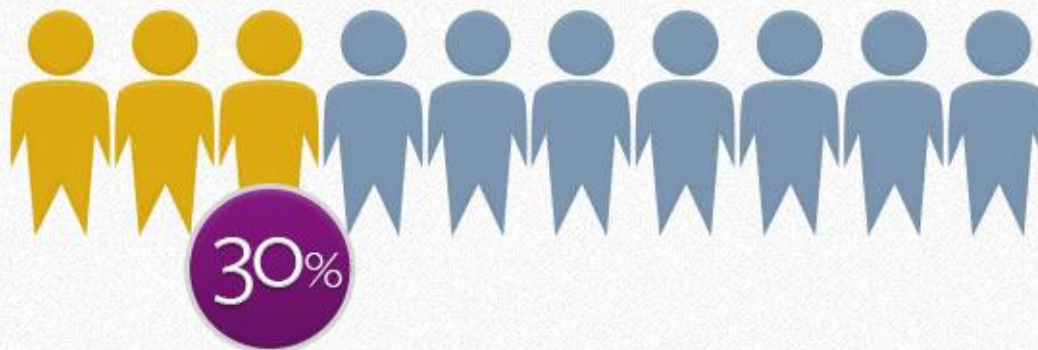


Children...

CHILDREN

Uncorrected Vision Among Children

An estimated 30% of children worldwide experience uncorrected vision problems (<18 years).



Source:

Boston Consulting Group



Impact for Children

CHILDREN

Poor Vision Slows Education

School-age children with visual acuity below 20/20 are 3X more likely to fail at least one grade.



Source:

Cumani Toledo et al, University Juiz de Fora (Brazil), "Early detection of visual impairment, and its relation with school effectiveness", Rev Assoc Med Bras 2010; 56(4).



Impaired vision has a major impact on workers' activity and productivity





Impaired vision has a major impact on workers' activity and productivity

GLOBAL

Poor Vision's Effect on Global Productivity

\$269B

Potential annual global productivity loss associated with uncorrected refractive errors.
(*\$22 billion United States, \$7 billion Japan, \$5 billion Germany*)

Source:

*Smith et al, "Potential lost productivity resulting from the global burden of uncorrected refractive error",
Bull World Health Organ 2009; 87.*



Impaired vision has a major impact on workers' activity and productivity

WORKERS

Vision Correction Increases Productivity

Corrected vision can increase employee performance by as much as 20%.



Source:

*Daum, Kent and Katherine Clore, 2004. "Productivity associated with visual status of computer users".
Optometry 75(1)*



Employee and Company Benefit of an Eye Exam

WORKERS

Lack of Eye Exams Linked to Greater Expenditure

The average annual expenditure per employee is 62% higher for workers who did not have an eye examination at work.



Source:

KDD Health Solutions based on an analysis of 389 individuals in a moderate size employer over three years.



Elderly people: a high-risk population

ELDERLY

Poor Vision Raises Risk of Costly Falls in Elderly

Falls are as much as 7 times more likely in the vision-impaired elderly.
The cost of falls to Australia's healthcare system in 2001 was est. at nearly \$500 million.



\$253 m
USA
Direct
costs

Source:

Mitchell P et al, Blue Mountain Eye Study 2009; Moller, "Projected costs of fall related injury to older persons due to demographic changes in Australia," Commonwealth Department of Health and Ageing 2003.



Drivers: potential danger on the road

DRIVERS

60% of Road Accident Costs can be Linked to Vision

An Italian study estimated the social cost of road accidents in 2007 as over €30 billion. €18b of this can be linked to impaired vision.



Source:
University of Milan-Bicocca.



What has to be achieved?

- Fight and reduce Ignorance
 - *Encourage and Collect New Studies*
 - *Animate the Researchers Community*
 - *Inspire Commitment*

- Encourage Eye Exam Programs
 - *more serious disabilities at stake*

- Promote optical solutions
 - *Simple*
 - *Proven*
 - *Accessible*



What has to be achieved?

- Be present in major health research and conventions
- Encourage the training of Eye Care Professionals
- Facilitate mass media campaigns and PR activities
- Partnership with other similar purposed organizations
 - Ex. Vision 2020



Vision Impact Institute Mission

The Vision Impact Institute is
a global **collector** and **connector** of knowledge
for reducing the impact of impaired vision around the world

Its mission is to raise awareness
of the economic impact of impaired vision

It connects stakeholders, policy makers, eye care
professionals and media through evidence and solutions
that further the cause of helping people to see better



Independent Advisory Board



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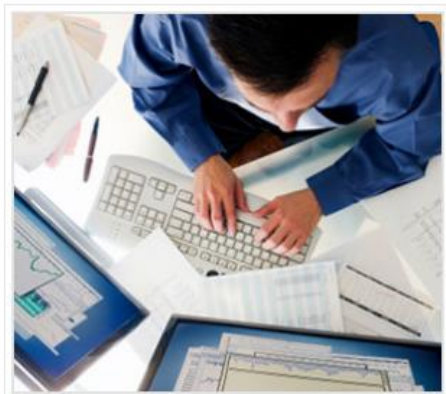
Next



An interactive website with free access to the collected data

[ABOUT](#)[RESEARCH](#)[STATS](#)[RESOURCES](#)[PRESS ROOM](#)[BLOG](#)

What We Offer



Research

Peer-reviewed studies from around the world analyzing the social and economic impact of poor vision. Search by criteria such as date, geographic location, patient population and popularity.

[VIEW RESEARCH](#)

Visual Tools

Materials to help advocates explain key research findings, including data visualizations for use in presentations and documents.

[VIEW STATS](#)

Resources

Concise facts on vision economics, along with ideas for new research, information on eye exams and external links to recommended reading and organizations working in the field.

[VIEW RESOURCES](#)

www.visionimpactinstitute.org



A global research center

A unique library of studies from around the world all in one place, easily searchable

Complete search engine for Studies:

- Free search
- Location
- Population categories
- Publications

Search For Research

Search for Research keyword

SUBMIT A REPORT ➔

51 Results

clear all ✕

REFINE FILTERS ⬆

LOCATION

Africa
Asia
Europe
North America
Oceania
South America

POPULATION CATEGORIES

Children
Workers
Elderly
Drivers

PUBLICATION

All

AUTHOR

All

PUBLICATION DATE

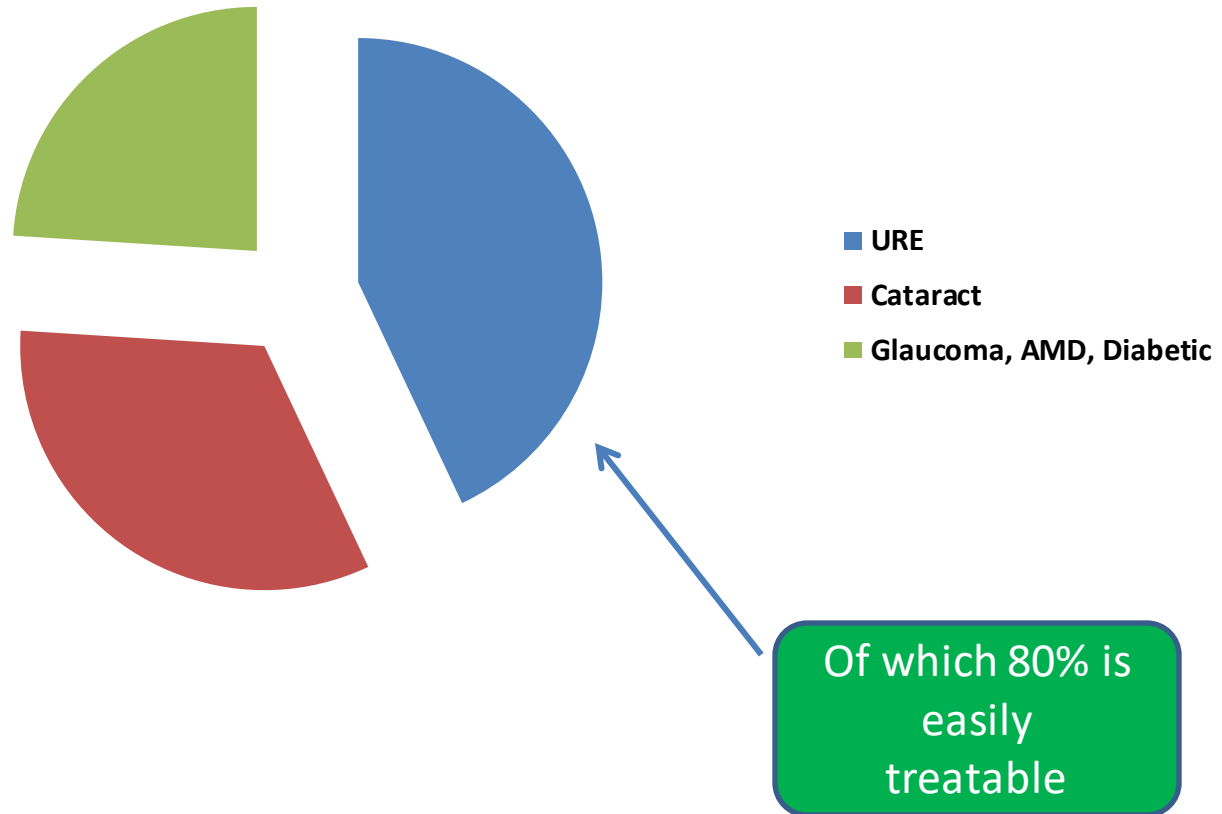
Jan 1, 1983 - May 1, 2012

DATES COVERED

Feb 1, 1987 - Apr 1, 2012

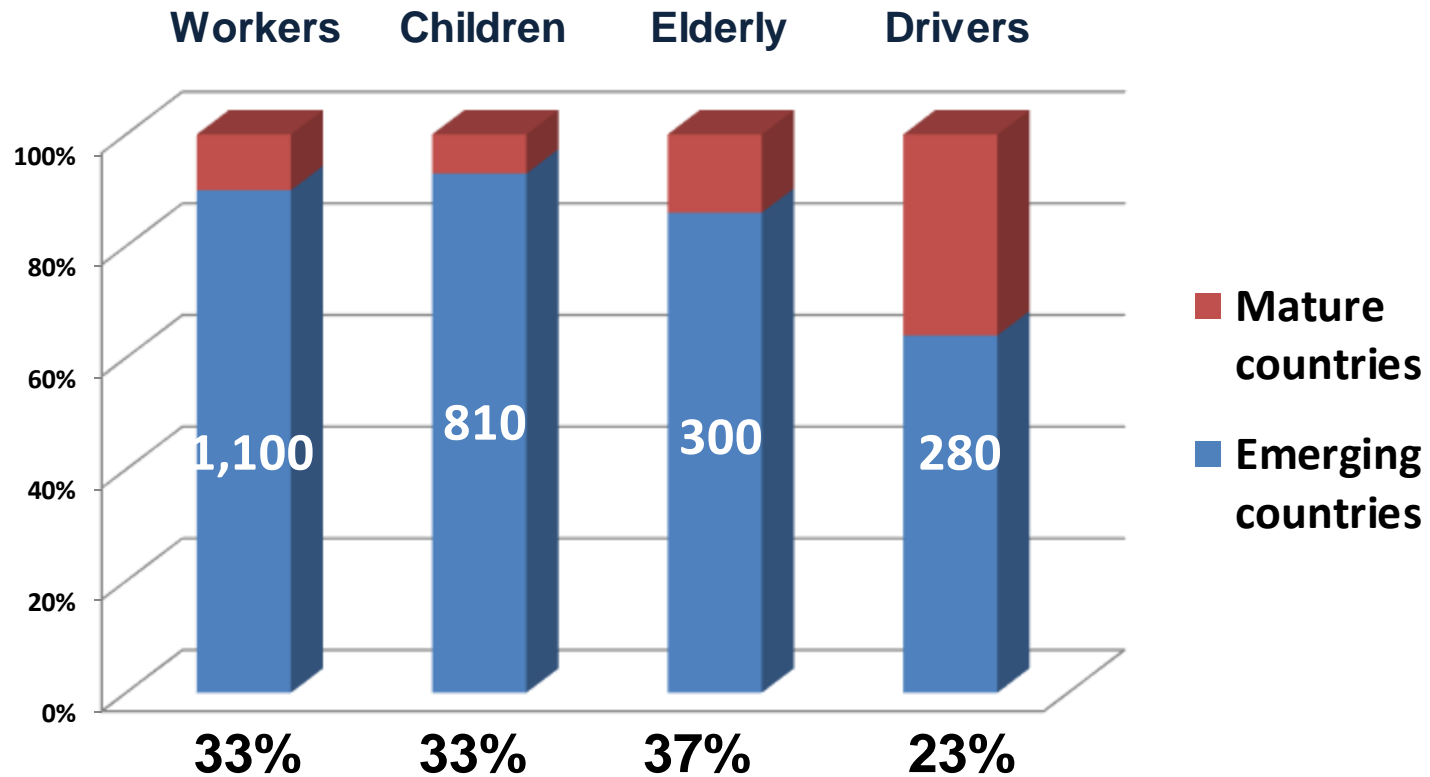


Main causes of Visual Impairment in the world : Uncorrected Refractive Error is key





Four main categories of people are particularly affected



1,100 = Million % of the total category

World Bank, Economist Intelligence Unit, BCG, Essilor,



Children's vision deserves a particular attention

Impaired vision has a triple impact for children:

- Population increasingly affected
- Strong and long-time impact at school
- No power to change their condition = parents' decision



Close the gaps

Foster research to fill gaps in existing knowledge.

Ideas for Research

Our library of selected peer-reviewed research provides a broad range of information on the social and economic impact of poor vision.

Many areas need greater study. In fact, for each major patient population, numerous issues call for further exploration and analysis. This research will fill existing gaps in knowledge about the consequences of visual impairment and provide a data-driven basis for advocacy in favor of new interventions.

Certain critical information is lacking for each major patient population:



CHILDREN

Direct Costs of Myopia in Teenagers

In Singapore, where an estimated 74% of teenagers are myopic, a 2008 study calculated the direct costs of myopia for teenagers and their families to be \$25 million.

MYOPIC TEENS

74%



ANNUAL COSTS

\$25M

Source:

Singapore Quek et al. "Prevalence of refractive errors in teenage high school students in Singapore". *Ophthalmic Physiol Opt* 2004 24.



ELDERLY

Cost - Modeling for Falls with Hip Fractures

Based on an Australian study, modeling shows avoidable annual direct costs of falls and hip fractures among vision impaired elderly in France, Germany and USA .

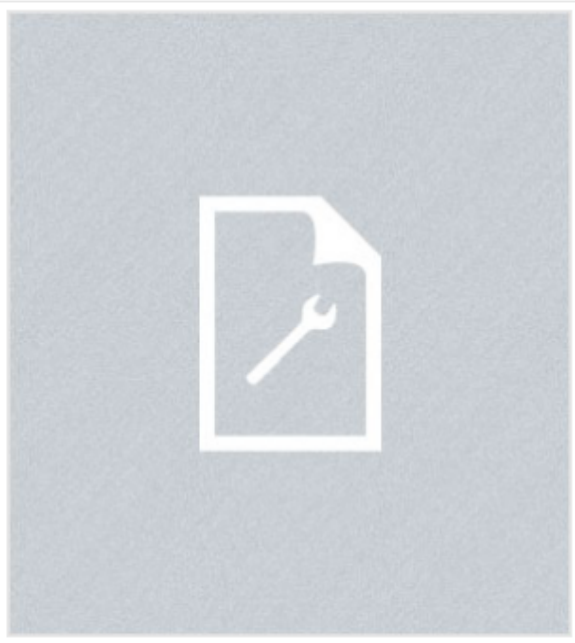


Source:

*Moller, "Projected costs of fall related injury to older persons due to demographic changes in Australia,"
Commonwealth Department of Health and Ageing 2003.*



Link between Stats and Studies



Productivity associated with visual status of computer users

Posted on February 21, 2013



KENT M. DAUM O.D., PH.D.

Additional author(s): Katherine A. Clore, Suzanne S. Simms, Jon W. Vesely, Dawn D. Wilczek, Brian M. Spittle & Greg W. Good

Publication: Optometry

BACKGROUND: The aim of this project is to examine the potential connection between the astigmatic refractive corrections of subjects using computers and their productivity and comfort. We hypothesize that improving the visual status of subjects using computers results in greater productivity, as well as improved visual comfort.

METHODS: Inclusion criteria required subjects 19 to 30 years of age with complete vision examinations before being enrolled. Using a double-masked, placebo-controlled, randomized design, subjects completed three experimental tasks calculated to assess the effects of refractive error on productivity (time to completion and the number of errors) at a computer. The tasks resembled those commonly undertaken by computer users and involved visual search tasks of: (1) counties and populations; (2) nonsense word search; and (3) a modified text-editing task.

RESULTS: Estimates of productivity for time to completion varied from a minimum of 2.5% upwards to 28.7% with 2 D cylindrical mis-correction. Assuming a conservative estimate of an overall 2.5% increase in productivity with appropriate astigmatic refractive correction, our data suggest a favorable cost-benefit ratio of at least 2.3 for the visual correction of an employee (total cost 268 dollars) with a salary of 25,000 dollars per year.

See Research
associated with
each Stat



Create a community of experts

Calling attention to the problem of poor eyesight and its consequences.

Why You Should Join

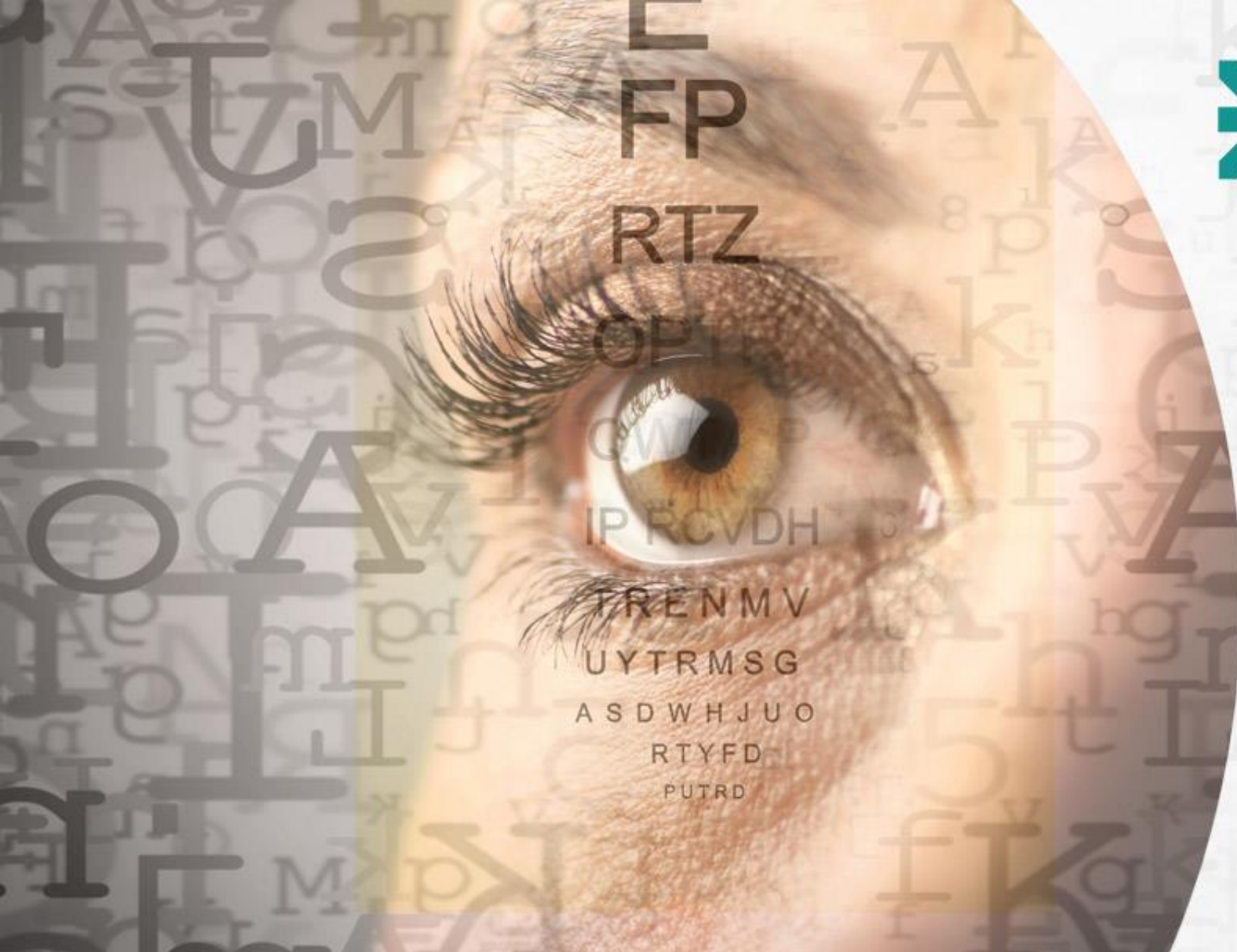
Whatever your interest in vision economics, this platform is designed to keep you informed of the latest research and developments in the field - and connect with a community that shares your commitment to exploring this dynamic subject.

Access is free, and what you learn here can be both professionally and personally enriching. Full use of the site's resources is available only to registered members of the Vision Impact Institute community.

Registration is simple, fast and free. It opens the door to research, resources, information and support in enhancing global awareness of vision economics, plus help from our Community Manager.

REGISTER WITH US





Our Vision Is Vision®

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FP
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