An Overview:
The WHO World Report on Vision
&
Essilor Report on Eliminating Poor Vision By 2050
The Significance of these Reports

“Both of these reports are crucial for the future of vision health as we find ourselves on the cusp of the year 2020,” says Kristan Gross, Global Executive Director. “This information can equip and empower advocates with a broader understanding of global vision health needs, and outline concrete actions to eliminate poor vision by 2050.”
Why this Report?

To address the significant challenges that many countries face in delivering eye care, the report offers clear proposals building on the concerted efforts of the past thirty years.

“By making a simple shift in our approach, we can ensure vision takes its rightful place on the global healthcare agenda”.

Key Proposal

To integrate and scale up ‘people-centered eye care’, embedded in health systems and based on strong primary health care.

Kristan Gross, Global Executive Director Vision Impact Institute.
WHO 1st World Report on Vision

Launched: October 8, 2019 ahead of World Sight Day

Partners: The World Health Organization (WHO) and partners from the eye health sector, including the International Agency for the Prevention of Blindness (IAPB) and IAPB members, Sightsavers and The Fred Hollows Foundation, as well as other international organizations and individual contributors.
Key Facts – Global Magnitude

1. **Vision Impairment & Blindness**
   Globally, at least 2.2 billion people have a vision impairment or blindness, of whom at least 1 billion have a vision impairment that could have been prevented or has yet to be addressed.

2. **Severe Vision Impairment**
   This 1 billion people includes those with moderate or severe distance vision impairment or blindness due to unaddressed refractive error, as well as near vision impairment caused by unaddressed presbyopia.

3. **Leading Causes**
   Globally, the leading causes of addressable vision impairment and blindness are uncorrected refractive errors and cataracts.

4. **Population in need**
   Eye conditions are remarkably common and on the rise. Aging is the primary risk factor for many eye conditions. The majority of people with vision impairment are over the age of 50 years.

5. **Socio-economic Impact**
   Vision impairment has serious consequences across the life course, many of which can be mitigated by timely access to quality eye care and rehabilitation. It also poses an enormous global financial burden due to productivity loss.

6. **Cost and Distribution**
   Significant financial investments are needed to cover the gap and to create stronger health systems, especially in low-and middle-income regions and in those with high prevalence of eye conditions and VI.
Million suffer from unaddressed Presbyopia

Million unaddressed Refractive Error

Million Cataract Surgeries

Million Glaucoma

Million Corneal Opacities

Million Diabetic Retinopathy

Million Trachoma

Billion people have a vision impairment that could have been prevented or has yet to be addressed.

2.2 Billion people live with a vision impairment.
Global Estimates of People affected by Eye Conditions

**Myopia**
- 312 million under the age of 19 yrs. in 2015.

**Age-related Macular Degeneration**
- People aged 30 to 97 years with age-related macular degeneration in 2020.
- 2.6 billion
- 196 million
- 146 million

**Diabetic Retinopathy**
- Based on estimated global number of adults >18 yrs. with diabetes in 2014 (422 million).
- 1.8 billion

**Presbyopia**
- Based on people of all ages with presbyopia in 2015.
- 76 million

**Glaucoma**
- People 40-80 yrs. of age with glaucoma in 2020.
Population growth and ageing will increase the risk that more people acquire vision impairment

Regional Differences – Inequity

The prevalence of distance vision impairment in low- and middle-income regions is estimated to be 4x higher than in high-income regions (1).

Rates of unaddressed near vision impairment are estimated to be greater than 80% in western, eastern and central sub-Saharan Africa, while comparative rates in high-income regions of North America, Australasia, Western Europe, and of Asia-Pacific are reported to be lower than 10% (2).

The burden of most eye conditions and visual impairment is far greater among people with low incomes, living in rural communities, older people, women, people with disabilities, ethnic minorities, and indigenous populations.

Strategies to address eye care needs

There are effective interventions to address the needs associated with eye conditions and visual impairment.

- **Incidence Prevention**: Interventions that help mitigate causes and risks factors of eye diseases as well as other health conditions can be highly effective (e.g., sanitation interventions, Vitamin A supplementation, time spent outdoors, diabetes control measures).

- **Prevention**: Causes, risk factors & addressing those eye conditions derivative from other health conditions.

- **Address VI and Restore Vision**: Spectacles, contact lenses and surgical interventions are functional and cost-effective ways to help improve vision. For other eye conditions, early detection, routine monitoring & management, and therapeutic methods are needed to slow progression.

- **Health Promotion**: Behavior change and Education.

- **Tailored to individual needs**: Age-related macular degeneration and glaucoma cannot be treated. Adapting environments, tools, counseling and training are the most common interventions in improving functioning for people with an irreversible vision impairment.

- **Treatment**: Targeting cure, symptoms & progression.

- **Rehabilitation**: Major eye conditions that cannot be treated require vision rehabilitation.
Challenges ahead

Needed Investment
There is a substantial burden associated with vision impairment and blindness. Addressing the coverage gap of 200 million people with moderate to severe VI and blindness due to cataract and refractive errors is a good investment.

Increase in Eye Conditions
Projections are on the rise due to ageing population, life expectancy increase, population growth, lifestyle and NCDs. Everyone will experience at least one eye condition in their lifetime.

Data Challenges
Population-based surveys, rapid assessments, and prevalence surveys have limitations and do not account for all ages and the total number of people with vision impairment & blindness. Better integration of HIS for eye care are needed.

Cataract surgery
US$ 6.9 billion

Refractive error
US$ 7.4 billion

US$14.3 billion
Universal Health Coverage and the Sustainable Development Goals

Addressing eye care needs contributes to achieving the targets of the SDGs by 2030. Particularly relevant to SDG3 - Good Health and Well-Being for all at all ages:

- SDG 3.3 - Neglected Tropical Diseases
- SDG 3.4 - Mental Health
- SDG 3.6 - Road Traffic Accidents (2020)
- SDG 3.8 – Achieve UHC
- SDG 3c – Workforce Health
Integrated people-centered eye care

Four Implementation Strategies:

1. **Empowering and engaging people and communities** to become effective users of health services; including better eye health literacy.

2. **Reorienting the model of care** with innovative models that prioritize and strengthen primary and community health care services; including adequate funding, appropriate workforce training, and sustainable workforce.

3. **Coordinating services** including individuals, health programs and providers across sectors including social services, finance, education, labor, and the private sector that would ensure continuity of eye care through life-course needs;

4. **Creating an enabling environment** that integrates the delivery of eye care services – including leadership and governance; information; health workforce; health financing; and medicines and health technologies (including assistive products).
The key proposal of the Report is to integrate and scale up eye care within national health services, based on strong primary health. Eye care needs to be part of Universal Health Coverage as an overall health strategy.

Eye care integrated into the health systems and national health strategies with services managed and delivered so that people receive a continuum of promotion, preventive, treatment and rehabilitative interventions to address the full spectrum of eye conditions.

Promote high-quality research and address the gaps in data, particularly regarding met and unmet eye care needs, so that we can plan services and monitor progress effectively.

Better and more comprehensive information systems in eye care that will allow to evaluate progress effectively, facilitate comparisons across countries, and strengthen the implementation of IPEC.

Importance of early identification of eye conditions; the need to prevent and address vision impairment; and how underserved populations can be empowered to gain access to eye care services.
Eliminating Poor Vision in a Generation

Why this Report?

This report offers insight into the scale of the vision problem between now and 2050, and the actions and investments needed to solve it.

"Limited research exists on the value of providing spectacles so governments often de-prioritize spectacles from their agenda. There is strong need to develop an evidence base around the value of providing eyewear and conveying this to secure public sector funding”.

Key Proposal

Poor vision can be eliminated by 2050 with an estimated $14 Billion investment in a combination of sustainable access points, innovation in affordable products, awareness raising
Key Facts

1. **Focused on Uncorrected Refractive Error**
   This report defines the scale of the vision care crisis, as it relates to uncorrected refractive errors (URE), over the next 30 years and proposes key priorities, actions and investment needed to sustainably address it.

2. **Affecting 2.7 Billion People**
   For the purpose of this report the number of people estimated to be suffering from URE in 2018 is 2.7 billion. (Based on those with a Visual Acuity of 6/9)

3. **Developed with Expert Input**
   McKinsey & Company provided analytical support for the report, interviewing over 100 experts in eye health, academia and program implementation.

4. **A Partnership Approach**
   The report recommends a partnership approach to inspire widespread systems change via multi-faceted strategies addressing public health systems, entrepreneurship, private sector actions and strategic philanthropy.

5. **Eyeglasses as a Focus**
   Eyeglasses are recommended as the simplest solution to refractive error. While other solutions are acknowledged they are not featured in this report.

6. **Innovation Predictions are Conservative**
   Actions and investments recommended in the report have been estimated based on what is thought to be possible in the next three to 10 years, rather than the next 30. Nevertheless, a front-loaded innovation investment (in the first 10 years) will continue to be needed.
Impairment vs. Need

• WHO quantifies vision impairment due to refractive error (RE) based on a less than 6/12 visual acuity cut off. This recognizes the resource limitations that public health systems may have as well as the burden on individuals.

• This report estimates the number of people suffering from URE in 2018 as 2.7 billion people. This is based on a 6/9 visual acuity cut-off to establish a need-based model because:
  • Individuals still battle to see at distance with a 6/12 visual acuity and this limits their ability to work or learn in various circumstances
  • Many individuals present clinically for correction with a 6/12 impairment
  • 6/12 visual acuity is often needed for drivers license and other functions
POPULATION GROWTH

Billions of people

Developing economies

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<th>2050</th>
<th>Growth</th>
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Developed economies

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<td>1.4</td>
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Setting the Context
Setting the Context

GDP
Trillion USD, constant 2010 $

Developing economies

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<th>Year</th>
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<th>Change</th>
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Developed economies

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<td>2018</td>
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<tr>
<td>2050</td>
<td>81</td>
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Global RE Burden

2018
- 2.7B people live with URE - 90 percent of those live in the developing world at the BoP
- 2.0B people live with corrected RE
- 2.9B need no vision correction

Population: 7.6B

2050
- 2.5B people will live with URE with affordability, awareness and access being barriers at the BoP
- 0.7B people will continue to live with URE even if they have moved up the pyramid, no longer facing affordability and awareness as barriers but still facing the challenge of access if the industry has not expanded to address this
- 3.4B people will live with corrected RE, having maintained their position in or moved up the economic pyramid to gain affordability, awareness and existing access offered by the industry
- 3.2B need no vision correction

Population: 9.8B

If the industry maintains its 2018 focus, serving established markets using similar channels and products...
RE Cases by Type

2018
Population 4.7B
- **Myopia**: 1.5B people suffer from myopia (below 40 years old)
- **Myopia**: 1.0B people suffer from myopia (above 40 years old, i.e., overlap with presbyopia)
- **Presbyopia**: 1.4B people suffer from presbyopia
- **Hyperopia**: 0.6B people suffer from hyperopia
- **Astigmatism**: 0.2B people suffer from astigmatism

2050 (if current actions are maintained)
Population 6.6B
- **Myopia**: 2.2B people suffer from myopia (below 40 years old)
- **Myopia**: 2.1B people suffer from myopia (above 40 years old, i.e., overlap with presbyopia)
- **Presbyopia**: 1.3B people will suffer from presbyopia
- **Hyperopia**: 0.8B people will suffer from hyperopia
- **Astigmatism**: 0.2B people will suffer from astigmatism
Poor Vision has a Real Social and Economic Impact

Uncorrected poor vision is the world’s largest unaddressed disability.

Uncorrected poor vision costs the global economy $272B in lost productivity every year.

1 in 3 people are affected by uncorrected poor vision — 90% live in the developing world at the economic base of the pyramid.

By 2050, over half of the world’s population may be afflicted with myopia with drastic long-term health implications.
Together We Can Solve the Issue…

$14B is needed to create a world free from uncorrected refractive errors.

- $2.4B to create sustainable access points
- $0.7B to innovate for affordable products
- $4.5B to raise awareness
- $6.2B to fund subsidized & free services
Creating Sustainable Access Points

$2.4B to create 1 million new sustainable access points which will equip 90 percent of the population in need

- 600,000 full refraction service points
- 400,000 readers-only points needed
Innovating for Affordable Solutions

$0.7B for innovation to accelerate the affordability of cost-to-serve and cost of products

- Investment in screening tools requiring less operator training
- Accelerate the scale-up of digitization
Raising Awareness

$4.5B to increase awareness of poor vision and its socio-economic impact at an individual and societal level

- To **drive demand for glasses** and the uptake of services
- To **drive investment** in new and existing services
Funding Subsidized and Free Services

$6.2B to fill funding gaps across affordability and access for people unable to pay for services

- 50% of wearers in need of subsidized or free services can be served by sustainable access points
Access the reports here:

- WHO Report on Vision
- Eliminating Poor Vision in a Generation

THANK YOU

VisionImpactInstitute.org