World Health Organization

Media centre

Vision impairment and blindness

Fact Sheet
Updated October 2017

Key facts

- An estimated 253 million people live with vision impairment: 36 million are blind and 217 million have moderate to severe vision impairment *(1)*.
- 81% of people who are blind or have moderate or severe vision impairment are aged 50 years and above *(1)*.
- Globally, chronic eye diseases are the main cause of vision loss. Uncorrected refractive errors and then un-operated cataract are the top two causes of vision impairment. Un-operated cataract remains the leading cause of blindness in low- and middle-income countries.
- The prevalence of infectious eye diseases, such as trachoma and onchocerciasis, have reduced significantly over the last 25 years.
- Over 80% of all vision impairment can be prevented or cured.

Definitions

Vision function is classified in 4 broad categories, according to the International Classification of Diseases -10 (Update and Revision 2006):

1. normal vision
2. moderate vision impairment
3. severe vision impairment
4. blindness.

Moderate vision impairment combined with severe vision impairment are grouped under the term “low vision”: low vision taken together with blindness represents all vision impairment.

The causes of visual impairment

According to recent estimates, the major global causes of moderate to severe vision impairment are *(1)*:

- uncorrected refractive errors, 53%
- un-operated cataract, 25%
- age-related macular degeneration 4%
- glaucoma, 2%
- diabetic retinopathy 1%.

The major causes of blindness are:

- un-operated cataract 35 %
- uncorrected refractive error 21 %
- glaucoma 8 %.

Who is at risk?

People aged 50 and over

81% of all people who are blind or have moderate to severe vision impairment are aged 50 years and above. With an increasing population of older people, more people will be at risk of vision impairment due to chronic eye diseases.

Children below age 15

An estimated 19 million children are vision impaired. Of these, 12 million children have a vision impairment due to refractive error. Around 1.4 million have irreversible blindness, requiring access to vision rehabilitation services to optimize functioning and reduce disability *(2)*.

Changes over the last twenty years

Overall, the prevalence of vision impairment worldwide has decreased since early estimates in the 1990s. This decrease is associated with:

- overall socioeconomic development;
- concerted public health action;
- increased availability of eye care services;
- awareness of the general population about solutions to the problems related to vision impairment (surgery, refraction devices, etc.).

However it is estimated that the number of people with vision impairment could triple due to population growth and ageing. For example, by 2050 there could be 115 million people who are blind, up from 38.5 million in 2020 *(3)*.

The global response to prevent blindness

Globally, more than 80% of all vision impairment can be prevented or cured. Areas of progress over the last 25 years include:

- governments established national programmes and regulations to prevent and control vision impairment;
- eye care services increasingly available and progressively integrated into primary and secondary health care systems, with a focus on the provision of services that are high quality, available and affordable;
- campaigns to educate about vision function importance and raise awareness, including school-based education; and
- stronger government leadership on international partnerships, with increasing engagement of the private sector.

Data over the last 25 years shows that there has been significant progress in preventing and curing vision impairment in many countries. The substantial reduction in onchocerciasis- and trachoma-related blindness is part of a significant reduction in the disease distribution and has substantially reduced the burden resulting from these infectious diseases. This has been achieved through a number of successful international public-private partnerships.

WHO response

WHO's work is guided by the *Universal eye health: a global action plan 2014-2019*, approved by the World Health Assembly in 2013, with the aim of achieving a measurable reduction of 25% of avoidable visual impairments by 2019.

Universal eye health: a global action plan 2014–2019

WHO has coordinated a number of regional workshops to enable Member States to share lessons learned and monitor progress against the action plan.

In this regard, WHO supports Member States to undertake assessments and develop policies and plans to improve access to quality comprehensive eye care services. A number of tools have been developed to assist with this work:

- eye care service assessment tool;
- tool for assessment of rehabilitation services and systems;
- tool for the assessment of diabetes and diabetic retinopathy.

WHO also works with Collaborating Centers and Non-State Actors in Official Relations to help deliver technical support to Member States.

In addition, WHO is currently developing a *World report on vision*, which is expected to be launched towards the end of 2018. Other priority areas of work include the prevention and management of diabetic retinopathy and the building of human resource capacities for eye care.

References

(1) Bourne RRA, Flaxman SR, Braithwaite T, Cicinelli MV, Das A, Jonas JB, et al.; Vision Loss Expert Group. Magnitude, temporal trends, and projections of the global prevalence of blindness and distance and near vision impairment: a systematic review and meta-analysis. Lancet Glob Health. 2017 Sep;5(9):e888–97.

(2) World Health Organization, Global Data on Visual Impairments 2010, 2012

(3) Bourne RRA, Flaxman SR, Braithwaite T, Cicinelli MV, Das A, Jonas JB, et al.2017

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