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## IAPB Briefing Paper

# Blindness and NCDs



International Agency for the  
Prevention of Blindness



The purpose of IAPB Briefing Papers is to inform IAPB members and others about important and emerging issues affecting VISION 2020: The Right to Sight.



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***The global emergence of non communicable diseases represents an opportunity for blindness prevention efforts. Some of the most serious blinding conditions fall within the scope of NCDs, and have a similar or greater impact than conditions which have so far achieved greater prominence in discussions around NCDs. The impact of blinding NCDs should be highlighted in discussions with governments and other donors; while opportunities for integration of eye health within activities to address diabetes, nutritional deficiencies and other conditions should also be maximised.***

## Non Communicable Diseases Overview

In recent years, non communicable diseases (NCDs) have risen in prominence on the global public health and development agenda. Combined, NCDs are the leading cause of death in the world today, and they continue to rise. In 2000, the World Health Assembly endorsed a Resolution on the Prevention and Control of NCDs, which over the past decade has been followed by resolutions on healthy lifestyles, diet, health promotion, tobacco related illnesses and cancer.

In April 2011, the WHO released its first Global Status Report on NCDs. Following this, the World Health Assembly endorsed a resolution which committed member states to accelerating efforts to address NCDs. Further reflecting the growing recognition of the impacts of NCDs, from 19-20 September 2011 the United Nations General Assembly High Level Meeting on the Prevention and Control of Non Communicable Diseases will be held.

Global efforts to address NCDs have largely excluded reference to the massive social and economic impacts of blinding conditions like cataract, glaucoma, diabetes and age related macular degeneration (AMD). Driven in part by a focus on mortality rates, diseases like cancer, respiratory illnesses, and those caused by tobacco and poor diet have received the bulk of attention in discussions around the NCDs.

## Blindness and the NCDs

Chronic eye conditions impact an increasing number of people and pose a major challenge to global public health and development. It is vital that governments around the world take decisive action now to include eye health within NCD control and prevention.

As the WHO's most recent figures show, 285 million people globally are vision impaired, of whom nearly 40 million are blind<sup>1</sup>. Around half of all blindness and vision impairment in developing countries is caused by cataract, and a further 10 percent of blindness is caused by glaucoma. Four percent of blindness and vision impairment is caused by diabetes, one of the primary diseases being addressed within the NCDs framework.

The reasons why avoidable blindness should be addressed within the NCDs framework are numerous and strong. As has been outlined in several studies, cataract surgery and other interventions to tackle blindness are extremely cost effective and the savings to national health budgets that would result from greater investments in blindness prevention are enormous<sup>2</sup>. Cost effectiveness is one of the key factors highlighted in the Global Status Report on NCDs which was released by the WHO in April 2011<sup>3</sup>. The report outlines a number of interventions which it considers to be 'best buys' — actions which 'should be undertaken immediately to produce accelerated results in terms of lives saved, diseases prevented and heavy costs avoided.' The cost effectiveness of blindness interventions is widely accepted and justifies the inclusion of actions against cataract and other blinding conditions as 'best buys'.

Discussions about NCDs often focus on mortality rates. There is evidence to suggest a relationship between blindness and mortality, including studies which show that up to 60 percent of children who become blind die within two years. Equally pertinent, however, is the Disability Adjusted Life Years (DALYs) measure. DALYs are a measurement of time lived with a disability combined with time lost due to premature mortality. According to the WHO, vision impairment — mostly caused by cataract, glaucoma and refractive error — is the 6th largest cause of DALYs globally. Vision impairment has a 3 percent share of global DALYs — more than unhealthy diet (1-2 percent) and physical inactivity (2.1 percent), and only fractionally less than those resulting from cancer (5.1 percent), respiratory disease (3.9 percent), harmful use of alcohol (4.5 percent) and tobacco use (3.7 percent)<sup>4</sup>.

The Global Status Report also highlights that programs to address NCDs should be driven in part by their level of preventability. It should be emphasised that as much as 80 percent of all blindness and vision impairment is preventable or treatable — and that the percentage of blindness which is preventable or treatable arising from blinding NCDs like cataract, glaucoma, diabetic retinopathy and AMD is higher still.

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<sup>1</sup> <http://www.who.int/mediacentre/factsheets/fs282/en/index.html>

<sup>2</sup> WHO, *Elimination of Avoidable Blindness*, Resolution WHA.56.26, 56th World Health Assembly, Geneva, 28 May 2003. AMD Alliance International and Access Economics, *The Global Economic Cost of Visual Impairment*, March 2010.

<sup>3</sup> WHO, *Global Status Report on NCDs*, 2011. [http://www.who.int/chp/ncd\\_global\\_status\\_report/en/](http://www.who.int/chp/ncd_global_status_report/en/)

<sup>4</sup> World Health Organization, *The World Health Report 2003* p160-165; WHO, *Global Status Report on NCDs*, pp56, 89



The Global Burden of Disease Study, due to be released later in 2011, should provide useful evidence for advocacy around the impacts of blinding disorders compared with other NCDs; as well as around the impacts of trachoma and onchocerciasis compared with other communicable diseases<sup>5</sup>.

## Advocacy Opportunities

There is great potential for coordinated advocacy both nationally and internationally to ensure that efforts to address NCDs incorporate a focus on reducing levels of blindness. Such a push could assist with mobilising funding from health ministries, and bilateral and multilateral aid donors. This advocacy has commenced, but more is needed.

One of the key challenges facing the international blindness prevention community is that blinding conditions all too often are viewed in isolation — and not as something which should logically be addressed within the context of broader public health and development challenges, including NCDs. Trachoma, for instance, is a disease of poverty, and water and sanitation, and should be addressed in an integrated manner. Childhood blindness caused by vitamin A deficiency should be addressed in a broader context of nutrition and food security; while childhood blindness, education and teacher training are all very much related.

One important goal is to ensure that diabetic retinopathy is addressed within the broader framework of diabetes programs, including through screening for vision loss. The evidence supporting this push is substantial— around three quarters of people who have diabetes for 10 years or more will develop some form of diabetic retinopathy, and people with diabetes are 25 times more likely to go blind than people who don't have diabetes. Diabetes is the leading cause of vision impairment among the working aged population in developed countries, and is a quickly escalating problem in many developing countries.

As a part of this advocacy, it is also important to highlight that activities which address blindness and vision impairment are firmly integrated within, and strengthen, health systems. Discussions around NCDs have included a focus on the need for health systems to be strengthened. As the Global Progress Report notes, 'Strengthening of health care systems to address NCDs must be undertaken through orienting existing organisational and financial arrangements and through conventional and innovative means of financing.' Health systems strengthening is also increasingly seen as vital by the donor community in international efforts to combat avoidable blindness and low vision. The IAPB's Briefing Paper on this subject provides a useful summary of blindness and health systems strengthening<sup>6</sup>.

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<sup>5</sup> Refer to: <http://www.globalburden.org/>

<sup>6</sup> Refer to: <http://www.vision2020.org/documents/IAPB%20Documents/Briefing%20papers%20etc/Health%20Systems%20and%20Eye%20Health-BP.pdf>.

## Conclusion

VISION 2020: The Right to Sight aims to eliminate avoidable blindness by the year 2020. For this to happen, a proactive approach to advocacy and programming is vital. The emergence of NCDs as a major global health problem represents a risk, and an opportunity, for these efforts. It is essential that lobbying continues to be enhanced nationally and internationally to ensure that governments and donors are aware of the impacts of blinding conditions, and that blinding conditions are among the most devastating of all NCDs. It is also important that the voice of the global blindness prevention community is heard at relevant conferences and forums.

This advocacy should focus on discrete opportunities — for instance, screening for diabetic retinopathy. It should also have the broader aim of ensuring that governments and donors recognise that blinding conditions are wide reaching public health problems that require sufficient resources and integrated responses if they are to be effectively addressed.

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