World Health Organization

SIXTY-SIXTH WORLD HEALTH ASSEMBLY **A66/11**
Provisional agenda item 13.4 **28 March 2013**

Draft action plan for the prevention of avoidable blindness and visual impairment 2014–2019

Towards universal eye health: a global action plan 2014–2019

Report by the Secretariat

1. The Executive Board at its 132nd session considered an earlier version of this report,[1] and adopted resolution EB132.R1 in which it recommended a resolution "towards universal eye health: a global action plan 2014–2019" for adoption by the Health Assembly.[2] The annexed draft action plan has been updated in the light of comments made during the Board's discussion (see actions 2.1, 2.4, 2.5 and 3.3 in Appendix 3).

2. In May 2009 the Sixty-second World Health Assembly in resolution WHA62.1 endorsed the action plan for the prevention of avoidable blindness and visual impairment, which was designed to cover the period 2009–2013. At its 130th session, in January 2012, the Executive Board decided in decision EB130(1) that a new action plan for the prevention of avoidable blindness and visual impairment for the period 2014–2019 should be developed and requested the Director-General to develop such a plan in close consultation with Member States and international partners and to submit the draft to the Sixty-sixth World Health Assembly through the Board.

3. In order to prepare an initial draft of the action plan for 2014–2019 the Secretariat held a web-based consultation between 24 February 2012 and 16 March 2012. Member States and international partners were invited to respond to a series of questions regarding the action plan for the period 2009–2013 and what new objectives or priority areas of work should be included in the plan for 2014–2019. A month later the Secretariat posted a discussion paper for a further four-week web-based consultation with Member States and international partners.

4. On 31 August 2012, a "zero draft" action plan was published on the WHO web site for discussion at an informal consultation with representatives of Member States, international partners and bodies in the United Nations system (Geneva, 8 October 2012). Participants not only contributed views but asked the Secretariat to convene a follow-up informal consultation to discuss global targets to be included in the draft action plan. That meeting was held on 31 October 2012, in preparation for which a further discussion paper was written and circulated.

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[1] See document EB132/9 and the summary record of the third meeting of the Executive Board at its 132nd session.

[2] See document EB132/2013/REC/1 for the resolution, and for the financial and administrative implications for the Secretariat of the adoption of the resolution.

5. The Secretariat has used the comments made at the initial informal consultation in preparing the annexed draft action plan, which incorporates the targets agreed at the 31 October meeting.

ACTION BY THE HEALTH ASSEMBLY

6. The Health Assembly is invited to adopt the draft resolution recommended by the Executive Board in resolution EB132.R1 and endorse the global action plan on eye health 2014–2019.

ANNEX

DRAFT

UNIVERSAL EYE HEALTH: A GLOBAL ACTION PLAN 2014–2019

1. In January 2012 the Executive Board reviewed progress made in implementing the action plan for the prevention of avoidable blindness and visual impairment for the period 2009–2013.[1] It decided that work should commence immediately on a follow-up plan for the period 2014–2019, and requested the Director-General to develop a draft action plan for the prevention of avoidable blindness and visual impairment for the period 2014–2019 in close consultation with Member States and international partners, for submission to the World Health Assembly through the Executive Board.[2] The following global action plan was drafted after consultations with Member States, international partners and organizations in the United Nations system.

VISUAL IMPAIRMENT IN THE WORLD TODAY

2. For 2010, WHO estimated that globally 285 million people were visually impaired, of whom 39 million were blind.

3. According to the data for 2010, 80% of visual impairment including blindness is avoidable. The two main causes of visual impairment in the world are uncorrected refractive errors (42%) and cataract (33%). Cost-effective interventions to reduce the burden of both conditions exist in all countries.

4. Visual impairment is more frequent among older age groups. In 2010, 82% of those blind and 65% of those with moderate and severe blindness were older than 50 years of age. Poorer populations are more affected by visual impairment including blindness.

BUILDING ON THE PAST

5. In recent resolutions the Health Assembly has highlighted the importance of eliminating avoidable blindness as a public health problem. In the latest on the subject, resolution WHA62.1 in 2009, it endorsed the action plan for the prevention of avoidable blindness and visual impairment in 2009. In 2012, a report noted by the Sixty-fifth World Health Assembly and a discussion paper described lessons learnt from implementing the action plan for 2009–2013. The results of these findings and the responses received to the discussion paper were important elements in the development of the content of the present global action plan. Some of the lessons learnt are set out below.

(a) *In all countries it is crucial to assess the magnitude and causes of visual impairment and the effectiveness of services.* It is important to ensure that systems are in place for monitoring prevalence and causes of visual impairment, including changes over time, and the effectiveness of eye care and rehabilitation services as part of the overall health system. Monitoring and evaluating eye care services and epidemiological trends in eye disease should be integrated into national health information systems. Information from monitoring and evaluation should be used to guide the planning of services and resource allocation.

[1] Document WHA62/2009/REC/1, Annex 1.

[2] Decision EB130(1).

(b) *Developing and implementing national policies and plans for the prevention of avoidable visual impairment remain the cornerstone of strategic action.* Although some programmes against eye diseases have had considerable success in developing and implementing policies and plans, there remains the need to integrate eye disease control programmes into wider health care delivery systems, and at all levels of the health care system. This is particularly so for human resource development, financial and fiscal allocations, effective engagement with the private sector and social entrepreneurship, and care for the most vulnerable communities. In increasing numbers countries are acquiring experience in developing and implementing effective eye health services and embedding them into the wider health system. These experiences need to be better documented and disseminated so that all countries can benefit from them.

(c) *Governments and their partners need to invest in reducing avoidable visual impairment through cost-effective interventions and in supporting those with irreversible visual impairment to overcome the barriers that they face in accessing health care, rehabilitation, support and assistance, their environments, education and employment.* Even though there are competing priorities for investing in health care, commonly used interventions to operate on cataract and correct refractive errors, the two major causes of avoidable visual impairment, are highly cost-effective. There are many examples where eye care has been successfully provided through vertical initiatives, especially in low-income settings. It is important that these are fully integrated into the delivery of a comprehensive eye care service within the context of wider health services and systems. The mobilization of adequate, predictable and sustained financial resources can be enhanced by including the prevention of avoidable visual impairment in broader development cooperative agendas and initiatives. Over the past few years, raising additional resources for health through innovative financing has been increasingly discussed but investments in the reduction of the most prevalent eye diseases have been relatively absent from the innovative financing debate and from major financial investments in health. Further work on cost-benefit analysis of prevention of avoidable visual impairment and rehabilitation is needed to maximize the use of resources that are already available.

(d) *International partnerships and alliances are instrumental in developing and strengthening effective public health responses for the prevention of visual impairment.* Sustained, coordinated international action with adequate funding has resulted in impressive achievements, as demonstrated by the former Onchocerciasis Control Programme, the African Programme for Onchocerciasis Control and the WHO Alliance for the Global Elimination of Trachoma by the year 2020. VISION 2020: The Right to Sight, the joint global initiative for the elimination of avoidable blindness of WHO and the International Agency for the Prevention of Blindness, has been important in increasing awareness of avoidable blindness and has resulted in the establishment of regional and national entities that facilitate a broad range of activities. The challenge now is to strengthen global and regional partnerships, ensure they support building strong and sustainable health systems, and make partnerships ever more effective.

(e) *Elimination of avoidable blindness depends on progress in other global health and development agendas*, such as the development of comprehensive health systems, human resources for health development, improvements in the area of maternal, child and reproductive health, and the provision of safe drinking-water and basic sanitation. Eye health should be included in broader noncommunicable and communicable disease frameworks, as well as those addressing ageing populations. The proven risk factors for some causes of blindness (e.g. diabetes mellitus, smoking, premature birth, rubella and vitamin A deficiency) need to be continuously addressed through multisectoral interventions.

(f) *Research is important and needs to be funded.* Biomedical research is important in developing new and more cost-effective interventions, especially those that are applicable in low-income and middle-income countries. Operational research will provide evidence on ways to overcome barriers in service provision and uptake, and improvements in appropriate cost-effective strategies and approaches for meeting ever-growing public health needs for improving and preserving eye health in communities.

(g) *Global targets and national indicators are important.* A global target provides clarity on the overall direction of the plan and focuses the efforts of partners. It is also important for advocacy purposes and evaluating the overall impact of the action plan. National indicators help Member States and their partners to evaluate progress and plan future investments.

GLOBAL ACTION PLAN 2014–2019

6. The **vision** of the global action plan is a world in which nobody is needlessly visually impaired, where those with unavoidable vision loss can achieve their full potential, and where there is universal access to comprehensive eye care services.

7. The global action plan 2014–2019 aims to sustain and expand efforts by Member States, the Secretariat and international partners to further improve eye health and to work towards attaining the vision just described. Its **goal** is to reduce avoidable visual impairment[1] as a global public health problem and to secure access to rehabilitation services for the visually impaired. The **purpose** of the action plan is to achieve this goal by improving access to comprehensive eye care services that are integrated into health systems. Further details are provided in Appendix 1. Five principles and approaches underpin the plan: universal access and equity, human rights, evidence-based practice, a life-course approach, and empowerment of people with visual impairment. Further details are provided in Appendix 2.

8. Proposed **actions** for Member States, international partners and the Secretariat are structured around three **objectives** (see Appendix 3):

Objective 1 addresses the need for generating evidence on the magnitude and causes of visual impairment and eye care services and using it to advocate greater political and financial commitment by Member States to eye health.

Objective 2 encourages the development and implementation of integrated national eye health policies, plans and programmes to enhance universal eye health with activities in line with WHO's framework for action for strengthening health systems to improve health outcomes.[2]

Objective 3 addresses multisectoral engagement and effective partnerships to strengthen eye health.

[1] *Visual impairment* includes moderate and severe visual impairment as well as blindness. "Blindness" is defined as a presenting visual acuity of worse than 3/60 or a corresponding visual field loss to less than 10° in the better eye. "Severe visual impairment" is defined as a presenting visual acuity of worse than 6/60 and equal to or better than 3/60. "Moderate visual impairment" is defined as a presenting visual acuity in the range from worse than 6/18 to 6/60 (WHO. *Definitions of blindness and visual impairment*. Geneva, World Health Organization, 2012, http://www.who.int/blindness/Change%20the%20Definition%20of%20Blindness.pdf; accessed 12 March 2013). The action plan uses the term *visual impairment*.

[2] *Everybody's business: strengthening health systems to improve health outcomes: WHO's framework for action.* World Health Organization. Geneva, 2007. http:// www.who.int/healthsystems/strategy/everybodys_business.pdf (accessed 12 March 2013).

Each of the three objectives has a set of **metrics** to chart progress.

9. There are three **indicators** at the goal and purpose levels to measure progress at the national level, although many Member States will wish to collect more. The three indicators comprise: (i) the prevalence and causes of visual impairment; (ii) the number of eye care personnel; and (iii) cataract surgery. Further details are provided in Appendix 4.

- **Prevalence and causes of visual impairment.** It is important to understand the magnitude and causes of visual impairment and trends over time. This information is crucial for resource allocation, planning, and developing synergies with other programmes.

- **Number of eye care personnel, broken down by cadre.** This parameter is important in determining the availability of the eye health workforce. Gaps can be identified and human resource plans adjusted accordingly.

- **Cataract surgery rate** (number of cataract surgeries performed per year, per million population) and **coverage** (number of individuals with bilateral cataract causing visual impairment, who have received cataract surgery on one or both eyes). Knowledge of the surgery rate is important for monitoring surgical services for one of the leading causes of blindness globally, and the rate also provides a valuable proxy indicator for eye care service provision. Where Member States have data on the prevalence and causes of visual impairment, coverage for cataract surgery can be calculated; it is an important measure that provides information on the degree to which cataract surgical services are meeting needs.

10. For the first of these indicators there is a **global target**. It will provide an overall measure of the impact of the action plan. As a global target, the reduction in prevalence of avoidable visual impairment by 25% by 2019 from the baseline of 2010 has been selected for this action plan.[1] In meeting this target, the expectation is that greatest gains will come through the reduction in the prevalence of avoidable visual impairment in the population over the age of 50 years. As described above, cataract and uncorrected refractive errors are the two principal causes of avoidable visual impairment, representing 75% of all visual impairment, and are more frequent among older age groups. By 2019, it is estimated 84% of all visual impairment will be among those aged 50 years or more. Expanding comprehensive integrated eye care services that respond to the major causes of visual impairment, alongside the health improvement that can be expected to come from implementing wider development initiatives including strategies such as the draft action plan for the prevention and control of noncommunicable diseases 2013–2020, and global efforts to eliminate trachoma suggest the target, albeit ambitious, is achievable. In addition there will be wider health gains that will have the effect of reducing visual impairment that will come from the expected increase in the gross domestic product in low-income and middle-income countries.[2]

[1] The global prevalence of avoidable visual impairment in 2010 was 3.18%. A 25% reduction means that the prevalence by 2019 would be 2.37%.

[2] According to the International Monetary Fund, by 2019 the average gross domestic product per capita based on purchasing power parity will grow by 24% in low-income and lower-middle-income countries, by 22% in upper-middle-income countries, and by 14% in high-income countries (http://www.imf.org/external/pubs/ft/weo/2012/02/weodata/index.aspx; accessed 12 March 2013).

Appendix 1

Vision, goal and purpose

VISION A world in which nobody is needlessly visually impaired, where those with unavoidable vision loss can achieve their full potential, and where there is universal access to comprehensive eye care services			
Goal	**Measurable indicators**[1]	**Means of verification**	**Important assumptions**
To reduce avoidable visual impairment as a global public health problem and secure access to rehabilitation services for the visually impaired[2]	Prevalence and causes of visual impairment *Global target: reduction in prevalence of avoidable visual impairment by 25% by 2019 from the baseline of 2010*	Collection of epidemiological data at national and subnational levels and development of regional and global estimates	Human rights conventions implemented, equity across all policies achieved, and people with visual impairment fully empowered Sustained investment achieved by the end of the action plan
Purpose			
To improve access to comprehensive eye care services that are integrated into health systems	Number of eye care personnel per million population Cataract surgical rate	Reports summarizing national data provided by Member States	Services accessed fully and equitably by all populations

[1] See also Appendix 4.

[2] The objective of the Secretariat's programme for the prevention of blindness was stated to be "to prevent and control major avoidable causes of blindness and to make essential eye care available to all … the long-term target being to reduce national blindness rates to less than 0.5%, with no more than 1% in individual communities" In: *Formulation and Management of National Programmes for the Prevention of Blindness*. Geneva, World Health Organization, 1990 (document WHO/PBL/90.18).

Appendix 2

Cross-cutting principles and approaches

Universal access and equity	**Human rights**	**Evidence-based practice**	**Life-course approach**	**Empowerment of people with blindness and visual impairment**
All people should have equitable access to health care and opportunities to achieve or recover the highest attainable standard of health, regardless of age, gender or social position	Strategies and interventions for treatment, prevention and promotion must be compliant with international human rights conventions and agreements	Strategies and interventions for treatment, prevention and promotion need to be based on scientific evidence and good practice	Eye health and related policies, plans and programmes need to take account of health and social needs at all stages of the life course	People who are blind or who have low vision can participate fully in the social, economic, political and cultural aspects of life

Appendix 3

Objectives and actions

Objective 1	**Measurable indicators**	**Means of verification**	**Important assumptions**
Evidence generated and used to advocate increased political and financial commitment of Member States for eye health	Number (%) of Member States that have undertaken and published prevalence surveys during the past five years by 2019 Number (%) of Member States that have completed and published an eye care service assessment over last five years in 2019 Observation of World Sight Day reported by Member States	Epidemiological and economic assessment on the prevalence and causes of visual impairment reported to the Secretariat by Member States Eye care service assessment and cost-effectiveness research results used to formulate national and sub-national policies and plans for eye health Reports of national, regional and global advocacy and awareness-raising events	Advocacy successful in increasing investment in eye health despite the current global financial environment and competing agendas
Actions for Objective 1	**Proposed inputs from Member States**	**Inputs from the Secretariat**	**Proposed inputs from international partners**
1.1 Undertake population-based surveys on prevalence of visual impairment and its causes	Undertake surveys in collaboration with partners, allocating resources as required Publish and disseminate survey results, and send them to the Secretariat	Provide Member States with tools for surveys and technical advice Provide estimates of prevalence at regional and global levels	Advocate the need for surveys Identify and supply additional resources to complement governments' investments in surveys
1.2 Assess the capacity of Member States to provide comprehensive eye care services and identify gaps	Assess eye care service delivery, allocating resources as required. Assessments should cover availability, accessibility, affordability, sustainability, quality and equity of services provided, including cost-effectiveness analysis of eye health programmes Collect and compile data at national level, identifying gaps in service provision Publish and disseminate survey results, and report them to the Secretariat	Provide Member States with tools for eye care service assessments and technical advice Publish and disseminate reports summarizing data provided by Member States and international partners	Advocate need for eye care service assessments Support Member States in collection and dissemination of data Identify and supply additional resources to complement governments' investments in eye care service assessments

1.3 Document, and use for advocacy, examples of best practice in enhancing universal access to eye care	Identify and document successful interventions and lessons learnt Publish results and report them to the Secretariat	Develop tools and provide them to Member States along with technical advice Collate and disseminate reports from Member States	Advocate need to document best practice Support Member States in documenting best practice and disseminating results Identify additional resources to complement governments' investments
Objective 2	**Measurable indicators**	**Means of verification**	**Important assumptions**
National eye health policies, plans and programmes for enhancing universal eye health developed and/or strengthened and implemented in line with WHO's framework for action for strengthening health systems to improve health outcomes	Number (%) of Member States reporting the implementation of policies, plans and programmes for eye health Number (%) of Member States with an eye health/prevention of blindness committee, and/or a national prevention of blindness coordinator, or equivalent mechanism in place Number (%) of Member States that include eye care sections in their national lists of essential medicines, diagnostics and health technologies Number (%) of Member States that report the integration of eye health into national health plans and budgets Number (%) of Member States that report a national plan that includes human resources for eye care Number (%) of Member States reporting evidence of research on the cost-effectiveness of eye health programmes	Reports summarizing data provided by Member States	Policies, plans and programmes have sufficient reach for all populations Services accessed by those in need

Actions for Objective 2	Proposed inputs from Member States	Inputs from the Secretariat	Proposed inputs from international partners
2.1 Provide leadership and governance for developing/updating, implementing and monitoring national/subnational policies and plans for eye health	Develop/update national/subnational policies, plans and programmes for eye health and prevention of visual impairment, including indicators and targets, engaging key stakeholders Secure inclusion of primary eye care into primary health care Establish new and/or maintain the existing coordinating mechanisms (e.g. national coordinator, eye health/prevention of blindness committee, other national/subnational mechanisms) to oversee implementation and monitoring/evaluating the policies, plans and programmes	Provide guidance to Member States on how to develop and implement national and subnational policies, plans and programmes in line with the global action plan Provide Member States with tools and technical advice on primary eye care, and evidence on good leadership and governance practices in developing, implementing, monitoring and evaluating comprehensive and integrated eye care services Establish/maintain global and regional staff with responsibility for eye health/prevention of visual impairment Establish country positions for eye health/prevention of visual impairment where strategically relevant and resources allow	Advocate national/subnational leadership for developing policies, plans and programmes Support national leadership in identifying the financial and technical resources required for implementing the policies/plans and inclusion of primary eye care in primary health care Secure funding for key positions in the Secretariat at headquarters, regional and country levels
2.2 Secure adequate financial resources to improve eye health and provide comprehensive eye care services integrated into health systems through national policies, plans and programmes	Ensure funding for eye health within a comprehensive integrated health care service Perform cost-benefit analysis of prevention of avoidable visual impairment and rehabilitation services and conduct research on the cost-effectiveness of eye health programmes to optimize the use of available resources	Provide tools and technical support to Member States in identifying cost-effective interventions and secure the financial resources needed	Advocate at national and international levels for adequate funds and their effective use to implement national/subnational policies, plans and programmes Identify sources of funds to complement national investment in eye care services and cost-benefit analyses

2.3 Develop and maintain a sustainable workforce for the provision of comprehensive eye care services as part of the broader human resources for health workforce	Undertake planning of human resources for eye care as part of wider human resources for health planning, and human resources for eye health planning in other relevant sectors Provide training and career development for eye health professionals Ensure retention strategies for eye health staff are in place and being implemented Identify, document and disseminate best practice to the Secretariat and other partners with regard to human resources in eye health	Provide technical assistance as required Collate and publish examples of best practice	Advocate the importance of a sustainable eye health workforce Support training and professional development through national coordination mechanisms Provide support to Member States in collection and dissemination of data
2.4 Provide comprehensive and equitable eye care services at primary, secondary and tertiary levels, incorporating national trachoma and onchocerciasis elimination activities	Provide and/or coordinate universal access to comprehensive and equitable eye care services, with emphasis on vulnerable groups such as children and the elderly Strengthen referral mechanisms, and rehabilitation services for the visually impaired Establish quality standards and norms for eye care	Provide WHO's existing tools and technical support to Member States	Advocate the importance of comprehensive and equitable eye care services Support local capacity building for provision of eye care services, including rehabilitation services in line with policies, plans and programmes through national coordination mechanisms Monitor, evaluate and report on services provided in line with national policies, plans and programmes through national coordination mechanisms
2.5 Make available and accessible essential medicines, diagnostics and health technologies of assured quality with particular focus on vulnerable groups and underserved communities, and explore mechanisms to increase affordability of new evidence-based technologies	Ensure existence of a national list of essential medical products, national diagnostic and treatment protocols, and relevant equipment Ensure the availability and accessibility of essential medicines, diagnostics and health technologies	Provide technical assistance and tools to support Member States	Advocate the importance of essential medicines, diagnostics and health technologies Provide essential medicines, diagnostics and health technologies in line with national policies

2.6 Include indicators for the monitoring of provision of eye care services and their quality in national information systems	Adopt a set of national indicators and targets, including those on rehabilitation, within the national information systems Periodically collect, analyse and interpret data Report data to the Secretariat	Provide technical support to Member States in including national indicators and targets in national health systems Collate and disseminate data reported by Member States annually	Advocate the importance of monitoring using nationally agreed indicators Provide financial and technical support for collection and analysis of national and subnational data
Objective 3	**Measurable indicators**	**Means of verification**	**Important assumptions**
Multisectoral engagement and effective partnerships for improved eye health strengthened	Number (%) of Member States that refer to a multisectoral approach in their national eye health/prevention of blindness policies, plans and programmes The WHO Alliance for the Global Elimination of Trachoma by the Year 2020, African Programme for Onchocerciasis Control, and Onchocerciasis Elimination Program for the Americas deliver according to their strategic plans Number (%) of Member States that have eye health incorporated into relevant poverty-reduction strategies, initiatives and wider socioeconomic policies Number (%) of Member States reporting eye health as a part of intersectoral collaboration	Reports from Member States received and collated by the Secretariat Receipt of annual reports and publications from partnerships	Non-health sectors invest in wider socioeconomic development

Actions for Objective 3	Proposed inputs from Member States	Inputs from the Secretariat	Proposed inputs from international partners
3.1 Engage non-health sectors in developing and implementing eye health/prevention of visual impairment policies and plans	Health ministries identify and engage other sectors, such as those under ministries of education, finance, welfare and development Report experiences to the Secretariat	Advise Member States on specific roles of non-health sectors and provide support in identifying and engaging non-health sectors Collate and publish Member States' experiences	Advocate across sectors the added value of multisectoral work Provide financial and technical capacity to multisectoral activities (e.g. water and sanitation) Provide support to Member States in collecting and disseminating experiences
3.2 Enhance effective international and national partnerships and alliances	Promote active engagement in, and where appropriate, establish partnerships and alliances that harmonize and are aligned with national priorities, policies, plans and programmes Identify and promote suitable mechanisms for intercountry collaboration	Where appropriate, participate in and lead partnerships and alliances, including engaging other United Nations entities, that support, harmonize and are aligned with Member States' priorities, policies, plans and programmes Facilitate and support establishment of intercountry collaboration	Promote participation and actively support partnerships, alliances and intercountry collaboration that harmonize and are aligned with Member States' priorities, policies, plans and programmes
3.3 Integrate eye health into poverty-reduction strategies, initiatives and wider socioeconomic policies	Identify and incorporate eye health in relevant poverty-reduction strategies, initiatives and socioeconomic policies Ensure that people with avoidable and unavoidable visual impairment have access to educational opportunities, and that disability inclusion practices are developed, implemented and evaluated	Write and disseminate key messages for policy-makers Advise Member States on ways to include eye health/prevention of visual impairment in poverty-reduction strategies, initiatives and socioeconomic policies	Advocate the integration of eye health into poverty-reduction strategies, initiatives and socioeconomic policies

Appendix 4

National indicators for prevention of avoidable blindness and visual impairment

1. Prevalence and causes of visual impairment

Purpose/rationale	To measure the magnitude of visual impairment including blindness and monitor progress in eliminating avoidable blindness and in controlling avoidable visual impairment
Definition	Prevalence of visual impairment, including blindness, and its causes, preferably disaggregated by age and gender
Preferred methods of data collection	Methodologically sound and representative surveys of prevalence provide the most reliable method. Additionally, the Rapid Assessment of Avoidable Blindness and the Rapid Assessment of Cataract Surgical Services are two standard methodologies for obtaining results for people in the age group with the highest prevalence of visual impairment, that is, those over 50 years of age
Unit of measurement	Prevalence of visual impairment determined from population surveys
Frequency of data collection	At national level at least every five years
Source of data	Health ministry or national prevention of blindness/eye health coordinator/committee
Dissemination of data	The Secretariat periodically updates the global estimates on the prevalence and causes of visual impairment

2.1 Number of eye care personnel by cadre: ophthalmologists

Purpose/rationale	To assess availability of the eye health workforce in order to formulate a capacity-development response for strengthening national health systems. Ophthalmologists are the primary cadre that deliver medical and surgical eye care interventions
Definition	Number of medical doctors certified as ophthalmologists by national institutions based on government-approved certification criteria. Ophthalmologists are medical doctors who have been trained in ophthalmic medicine and/or surgery and who evaluate and treat diseases of the eye
Preferred methods of data collection	Registers of national professional and regulatory bodies

Unit of measurement	Number of ophthalmologists per one million population
Frequency of data collection	Annually
Limitations	The number does not reflect the proportion of ophthalmologists who are not surgically active; clinical output (e.g. subspecialists); performance; and quality of interventions. Unless disaggregated, the data do not reflect geographical distribution
Source of information	Health ministry or national prevention of blindness/eye health coordinator/committee
Dissemination of data	The Secretariat annually issues a global update based on the national data provided by Member States

2.2 Number of eye care personnel by cadre: optometrists

Purpose/rationale	To assess availability of the eye health workforce in order to formulate a capacity-development response for strengthening national health systems. In an increasing number of countries, optometrists are often the first point of contact for persons with eye diseases
Definition	Number of optometrists certified by national institutions based on government-approved certification criteria
Preferred methods of data collection	Registers of national professional and regulatory bodies
Unit of measurement	Number of optometrists per one million population
Frequency of data collection	Annually
Limitations	The number does not denote performance, especially the quality of interventions to reduce avoidable blindness. There is a wide variability in knowledge and skill of optometrists from one nation to another because curricula are not standardized Numbers do not reflect the proportion of ophthalmic clinical officers, refractionists and other such groups who in some countries perform the role of optometrists where this cadre is short-staffed or does not exist
Source of information	Health ministry or national prevention of blindness/eye health coordinator/committee
Dissemination of data	The Secretariat annually issues a global update based on the national data provided by Member States

2.3 Number of eye care personnel by cadre: allied ophthalmic personnel

Purpose/rationale	To assess availability of the eye health workforce in order to formulate a capacity-development response for strengthening national health systems. Allied ophthalmic personnel may be characterized by different educational requirements, legislation and practice regulations, skills and scope of practice between countries and even within a given country. Typically, allied ophthalmic personnel comprise opticians, ophthalmic nurses, orthoptists, ophthalmic and optometric assistants, ophthalmic and optometric technicians, vision therapists, ocularists, ophthalmic photographer/imagers, and ophthalmic administrators
Definition	Numbers of allied ophthalmic personnel comprising professional categories, which need to be specified by a reporting Member State
Preferred methods of data collection	Compilation of national data from subnational (district) data from government, nongovernmental and private eye care service providers
Unit of measurement	Number of allied ophthalmic personnel per one million population
Frequency of data collection	Annually
Limitations	The numbers do not denote performance, especially the quality of interventions to reduce avoidable blindness. There is a wide variability in knowledge and skill. These data are useful for monitoring of progress in countries over time but because of variation in nomenclature they cannot be reliably used for intercountry comparison
Source of information	Health ministry or national prevention of blindness/eye health coordinator/committee
Dissemination of data	The Secretariat annually issues a global update based on the national data provided by Member States

3.1 Cataract surgical rate

Purpose/rationale	Globally, cataract remains the leading cause of blindness. Visual impairment and blindness from cataracts are avoidable because an effective means of treatment (cataract extraction with implantation of an intraocular lens) is both safe and efficacious to restore sight. The cataract surgical rate is a quantifiable measure of cataract surgical service delivery. The rate can be used to set targets within countries rather than for intercountry comparisons. It is also often used as a proxy indicator for general eye care service delivery
Definition	The number of cataract operations performed per year per one million population
Preferred methods of data collection	Government health information records, surveys

Unit of measurement	Number of cataract operations performed per one million population
Frequency of data collection	Annually at national level. In larger countries it is desirable to collate data at subnational level
Limitations	This indicator is meaningful only when it includes all cataract surgeries performed in a country, that is, those performed within the government and nongovernmental sectors
Comments	For calculations, use official sources of population data (United Nations)
Source of information	Health ministry or national prevention of blindness/eye health coordinator/committee
Dissemination of data	The Secretariat annually issues a global update based on the national data provided by Member States

3.2 Cataract surgical coverage

Purpose/rationale	To assess the degree to which cataract surgical services are meeting the need
Definition	Proportion of people with bilateral cataract eligible for cataract surgery who have received cataract surgery in one or both eyes (at 3/60 and 6/18 level)
Preferred methods of data collection	Calculation using data from methodologically sound and representative prevalence surveys. Additionally, calculation using data from the Rapid Assessment of Avoidable Blindness and the Rapid Assessment of Cataract Surgical Services, which are two standard methodologies to obtain results for people in the age group with the highest prevalence of blindness and visual impairment due to cataract, that is, those over 50 years of age
Unit of measurement	Proportion
Frequency of data collection	Determined by the frequency of performing a national/district study on the prevalence of blindness and visual impairment and their causes
Limitations	Requires population-based studies, which may be of limited generalization
Comments	Preferably data are disaggregated by gender, age, and urban/rural location or district
Source of information	Health ministry or national prevention of blindness/eye health coordinator/committee
Dissemination of data	The Secretariat periodically issues updates