ZERO DRAFT "UNIVERSAL ACCESS TO EYE HEALTH: A GLOBAL ACTION PLAN, 2014-2019"

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Introduction

Recent World Health Assembly resolutions and mandate

A number of World Health Assembly resolutions highlight the importance of consolidating global efforts to eliminate avoidable blindness as a public health problem.[1] [2] [3] The latest resolution endorsed the *Action plan for the prevention of avoidable blindness and visual impairment 2009-2013*.[4] The Action plan focused on the major causes of avoidable blindness, and was designed to expand efforts by Member States, the Secretariat and international partners in preventing blindness and visual impairment, predominantly in low- and middle-income countries.

At the 130th session of the WHO Executive Board, a progress report on the implementation of the action plan was reviewed.[5] Having considered the report and noting that the current action plan will end in 2013, the Board decided that a new action plan for the period 2014–2019 should be developed.[6]

Magnitude of blindness and visual impairment

[1] World Health Organization. World Health Assembly resolution WHA56.26 Elimination of avoidable blindness (document WHA56/2003). Geneva 2003. http://apps.who.int/gb/archive/e/e_wha56.html

[2] World Health Organization. World Health Assembly resolution WHA59.25 Prevention of avoidable blindness and visual impairment (document WHA59/2006/REC/1). Geneva, 2006. http://apps.who.int/gb/or/e/e_wha59r1.html

[3] World Health Organization. World Health Assembly resolution WHA62.1 Prevention of avoidable blindness and visual impairment (document WHA62/2009/REC/1). Geneva, 2009. http://apps.who.int/gb/ebwha/pdf_files/WHA62-REC1/WHA62_REC1-en-P2.pdf

[4] World Health Organization. Action plan for the prevention of avoidable blindness and visual impairment (document WHA62/2009/REC/1, Annex 1). Geneva, 2009. http://apps.who.int/gb/ebwha/pdf_files/WHA62-REC1 -en-P4.pdf

[5] World Health Organization. World Health Assembly Report by the Secretariat. Implementation of the action plan for the prevention of avoidable blindness and visual impairment (document WHA/65/A65/9). Geneva 2012. http://apps.who.int/gb/e/e_wha65.html

[6] World Health Organization. 130th Executive Board, Ninth meeting. Geneva 2012. http://apps.who.int/gb/or/e/e_eb130-PSR.html

In recent years, significant accomplishments have been achieved in the control of avoidable visual impairment and blindness. For 2004, WHO estimated that there were 314 million people with visual impairment, including 45 million blind.[7] [8] During the lifetime of Action plan 2009-2013, WHO released an update of the global estimates indicating that, in 2010, 285 million people were visually impaired, including 39 million blind.[9]

The main cause of blindness in the world is cataract (51%) while uncorrected refractive errors are the major cause of visual impairment (43%). The 2010 data indicated that overall, 80% of all blindness and visual impairment are avoidable. The poor and least educated communities remain most affected by visual impairment and blindness.

Key issues

Action plan 2009-2013 described a range of experiences and opportunities for expanding the prevention of avoidable blindness. Implementing the action plan has highlighted a number of key issues. Lessons learnt in the prevention of avoidable blindness to date need to be carefully utilized for future progress in the implementation of the Action plan 2014-2019, helping to address the ever-increasing challenges of the current economic climate and competing public heath agendas.

Developing and implementing national policies and plans for the prevention of blindness and visual impairment remains critical. Although a number of eye disease programmes have had considerable success in pursuing this, there remains the need to integrate eye diseases control programmes into wider health care delivery systems, at all levels of the health care system. This is particularly relevant in the areas of human resource development, financial and fiscal allocations, effective engagement with the private sector and social entrepreneurship, and care for the most vulnerable communities. There are an ever-increasing number of countries with experience in developing and implementing effective eye health services. These experiences need to be better documented and disseminated so that other countries can learn from them and use them while deciding on the most appropriate evidence-based, cost-effective interventions.

Large international partnerships and alliances have been instrumental in developing effective public health response for the prevention of visual impairment and blindness. Sustained coordinated international action with adequate funding can achieve major accomplishments, as demonstrated by former Onchocerciasis Control Programme (OCP) and the ongoing progressive elimination of blinding trachoma under the global programme coordinated by the WHO Alliance for Global Elimination of Trachoma by the year 2020 (GET2020). The challenge is to strengthen global and regional partnerships and to strive to increase their effectiveness.

Elimination of avoidable blindness is dependent on the progress of other global health and development agendas, such as the development of comprehensive health systems and

[7] Resnikoff S et al. Global data on visual impairment in the year 2002. Bull World Health Organ 2004; 82:844-851.

[8] Resnikoff S et al. Global Magnitude of visual impairment caused by uncorrected refractive errors in 2004. Bull World Health Organ 2008; 86:63-70.

[9] World Health Organization. Global estimates of visual impairments 2010. WHO/NMH/PBD/12.01

the provision of water and sanitation. Where appropriate, eye health should therefore be included into broader noncommunicable and communicable disease frameworks, where eye care can support the implementation of improved health and poverty eradication. The limited number of proven risk factors for some causes of blindness, (e.g. diabetes mellitus, smoking, premature birth, rubella, vitamin A deficiency) need to be addressed through multisectoral interventions.

National governments and their partners need to invest in cost-effective actions. The mobilization of adequate, predictable and sustained financial resources can be further enhanced by including the prevention of avoidable blindness and visual impairment in broader development cooperative agendas and initiatives. Over the last few years, there has been increasing discussion around raising additional resources for health through innovative financing 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.

In all countries the priority is to assess the magnitude and causes of blindness and visual impairment and changes over time. Consequently, setting national targets with clear monitoring mechanisms allows for measuring the outcomes of interventions and the effective delivery of eye care services. It is important that such approaches are integrated into national health information systems and that data are collated at regional and global levels to monitor trends and adjust plans and strategies to the future emerging conditions in a timely manner.

Continued effort supported by resources will have to be dedicated to operational research to provide evidence on appropriate cost-effective strategies and approaches for addressing ever developing public health needs for improving and preserving eye health in communities.

Meeting the challenge: a strategy for 2014-2019

Universal access to eye health: a global action plan 2014-2019 aims to sustain and expand efforts by Member States, the WHO Secretariat and international partners in further improving eye health at community and national levels. The goal of the action plan is to provide a global framework which contributes to the efforts to eliminate avoidable blindness and visual impairment as a major public health problem through the provision of comprehensive eye care services integrated in the health system with an approach which ensures quality and equity.

The actions and suggested input from Member States, the WHO Secretariat, and international partners are structured around three objectives:

Objective 1 addresses the need for evidence-based advocacy for increased political and financial commitment of Member States and international financing agencies and organizations for eye health. Although a number of eye disease programmes have had considerable success, there remains the need to integrate eye diseases control programmes into wider health systems, especially within primary health care.

Objective 2 provides guidance on the development and implementation of integrated national eye health policies, plans and programmes, with activities relevant to each of the six building blocks of health systems.[10] Setting national targets with clear monitoring mechanisms is a priority for measuring the outcomes of interventions and the effective delivery of eye care services. Developing and strengthening national policies, plans and programmes for eye health in WHO Member States requires concerted efforts of all the key stakeholders.

Objective 3 encourages the developing and strengthening of national policies, plans and programmes for eye health in WHO Member States and requires concerted efforts of all the key stakeholders. Opportunities for effective use of resources through multisectoral engagement and work in partnerships for eye health are outlined in activities for delivering.

The action plan is based on five key cross-cutting principles comprising (1) universal access and equity, (2) human rights, (3) evidence-based practice. (4) life course approach, and (5) empowerment of people with blindness and visual impairment (Annex 1).

In order to assess trends in the magnitude and causes of blindness and visual impairment and to measure the progress made in the global response to eye diseases, a set of indicators and targets have been identified (Annex 2 and 3). In addition to these, countries may wish to add additional indicators and targets based on their own priorities and resources.

Universal access to eye health: a global action plan 2014-2019 is to support Member States and international partners in fulfilling the overarching vision: a world in which no one is needlessly visually impaired, where those with unavoidable vision loss can achieve their full potential, and there is universal access to comprehensive eye care services. Member States and international partners are presented with a set of activities from which they can adopt those most appropriate to their own setting and needs.

[10] World Health Organization. Health systems. http://www.who.int/healthsystems/topics/en/index.html

Vision, goal and purpose

VISION **A world in which no one is needlessly visually impaired, where those with unavoidable vision loss can achieve their full potential, and there is universal access to comprehensive eye care services.**			
GOAL	**Measurable Indicators**	**Means of Verification**	**Important Assumptions**
To reduce blindness and visual impairment as a global public health problem.[11]	(i) Magnitude of blindness in the world (Target: see options in Annex 3) (ii) Magnitude of severe and moderate visual impairment in the world (Target: see options in Annex 3)	Collection of national and subnational epidemiological data and development of regional and global estimates	Human rights conventions implemented, equity across all policies, and people with blindness and visual impairment fully empowered.
PURPOSE			
To improve eye health through comprehensive eye care services integrated in health systems.	(i) Eye care personnel per million population (see Annex 2). (ii) Cataract Surgical Rate (see Annex 2).	Reports summarizing national data provided by Member States.	Services accessed fully and equitably by all populations.

[11] "The objective if the WHO Programme for the Prevention of Blindness is 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: World Health Organization. Formulation and Management of National Programmes for the Prevention of Blindness (document WHO/PBL/90.18). Geneva 1990.

Objectives and actions

OBJECTIVE 1			
Evidence generated and used to advocate for increased political and financial commitment of Member States for eye health.	Number (%) of Member States that have undertaken and published prevalence surveys over the last five years in 2018. Number (%) of Member States completed and published eye care service assessment over last five years in 2018. Observation of World Sight Day.	Epidemiological assessment on prevalence of blindness and visual impairment and their causes shared with WHO by Member States. Eye care service assessment results addressed in published national and sub-national policies and plans for eye health Reports of national, regional and global events.	Global financial environment and competing agendas mean that advocacy efforts are successful in increasing investment in eye health.
ACTIONS FOR OBJECTIVE 1	**Proposed inputs from Member States**	**Inputs from Secretariat**	**Proposed inputs from international partners**
1.1 Undertake population based surveys on prevalence of blindness and visual impairment and their causes.	Undertake surveys in collaboration with other partners, allocating resources as required. Publish, disseminate survey results, and share with WHO.	Provide Member States with the existing WHO tools for surveys and technical advice. Provide estimates for regional and global levels.	Advocate on the need for surveys. Identify additional resources to complement government investment for surveys.
1.2 Assess the capacity of Member States to provide comprehensive eye care service delivery and identify gaps in service provision.	Conduct eye care service delivery assessments, allocating resources as required. This should include availability, accessibility, affordability, sustainability, quality and equity. Collect and compile data at national level, identifying gaps in service provision. Publish, disseminate survey results, and share with WHO.	Provide Member States with the existing WHO tools for surveys and technical advice. Provide reports summarizing data provided by Member States	Advocate on the need for surveys Support Member States in collection and dissemination of data Identify additional resources to complement government investment for surveys.

1.3 Document examples of best practice in eye health programmes and use them to advocate for improving eye health programmes throughout the world.	Identify and document successful interventions and lessons learnt. Publish results and share with national policy makers and with WHO.	Develop tools and then provide Member States with tools and technical advice. Collate and compile reports from Member States and share internationally.	Advocate on the need to document best practice. Support Member States in documenting best practice and disseminating results. Identify additional resources to complement government investment.

OBJECTIVE 2	Measurable Indicators	Means of Verification	Important assumptions
National policies, plans and programmes for eye health which are integrated into national health systems developed and/or strengthened and being implemented along the lines of the WHO health system building blocks.	Number (%) of Member States with policies and/or plans for eye health. Number (%) of Members 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 products for eye care as part of their national list of essential medicines.	Reports summarizing data provided by Member States.	Policies and plans have sufficient reach for all populations. Services accessed by those in need.
ACTIONS FOR OBJECTIVE 2	**Proposed inputs from Member States**	**Inputs from Secretariat**	**Proposed inputs from international partners**
2.1 Provide ***leadership and governance*** for developing/updating, implementing and monitoring national/sub-national policies and plans for eye health.	Develop/update national/sub-national eye health and blindness prevention policies and plans, including indicators and targets, engaging key stakeholders. Establish/maintain a coordinating mechanism (e.g. national coordinator, eye health/prevention of blindness committee, other national/sub-national mechanism) to oversee implementation and monitoring/evaluating the plan/policy.	Provide Member States with the existing WHO tools and technical advice, including 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 for eye health/prevention of blindness. Establish country positions for eye health/prevention of blindness where strategically relevant and resources allow.	Advocate for national/subnational leadership for developing policy and plans. Support national leadership in articulating the financial and technical resources required for implementing the policies/plans. Identify funding for key positions in WHO, at HQ, 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 and plans.	Agree and provide funding for eye health within a comprehensive integrated eye care service.	Provide technical support to assist Member States secure the financial resources needed.	Advocate at national and international levels for adequate funds to implement national/subnational policies and plans. Identify sources of funds to complement national investment in eye care services.
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. Provide training and professional development for eye health professionals. Ensure retention strategies for eye health staff are in place and being implemented. Identify, document, and share best practice with regards eye health human resource development.	Provide existing WHO tools and technical assistance as required. Collate and share best practices.	Advocate on the importance of developing a sustainable eye heath workforce. Support training and professional development through national coordination mechanisms. Support Member States in collection and dissemination of data.
2.4 Provide comprehensive and equitable ***eye care services*** at primary, and secondary and tertiary levels.	Provide and/or coordinate universal access to comprehensive and equitable eye care services, including rehabilitation services for the visually impaired and blind. Establish eye care quality standards and norms.	Provide existing WHO tools and technical support to Member States.	Advocate on the importance of comprehensive and equitable eye care services. Provide eye care services, including rehabilitation services in line with national policies and plans through national coordination mechanisms. Monitor, evaluate and report on service provided in line with national policies and plans through national coordination mechanisms.

2.5 Make ***essential medicines, diagnostics and health technologies*** of assured quality with particular focus on vulnerable groups and underserved communities.	Ensure a national list of essential medical products, national diagnostic and treatment protocols, and relevant equipment exists. Ensure that essential medicines, diagnostics and health technologies are available and accessible.	Provide technical assistance through existing WHO tools.	Advocate on the importance of essential medicines, diagnostics and health technologies. Provide essential medicines, diagnostics and health technologies in line with national policies. Assist Member States in identifying the most appropriate procurement sources.
2.6 Include indicators for the monitoring of eye care service provision and their quality as part of a ***national information system.***	Adopt a set of indicators and targets within the national information systems. Analyse and interpret data. Share data with WHO.	Provide technical support to define appropriate indicators and targets using existing WHO tools. Collate and disseminate data reported by Member States annually.	Advocate on the importance of monitoring using nationally agreed indicators. Provide financial and technical support for national and subnational data collection and analysis.

OBJECTIVE 3	Measurable Indicators	Means of Verification	Important assumptions
Multisectoral engagement and effective partnerships for improved eye health strengthened.	Number (%) Member States that refer to a multisectoral approach in their national eye health/prevention of blindness plans and policies. The WHO Alliance for the Global Elimination of Blinding Trachoma by the year 2020, African Programme for Onchocerciasis Control, and Onchocerciasis Elimination Program for the Americas delivering on their strategic plans. Number (%) of Member States have eye health incorporated into relevant poverty reduction strategies, initiatives and wider socioeconomics policies.	Reports that summarize data provided by Member States. Annual reports and partnership indicators.	Non health sectors invest in wider socioeconomic development.
ACTIONS FOR OBJECTIVE 3	**Proposed inputs from Member States**	**Inputs from Secretariat**	**Proposed inputs from international partners**
3.1 Engage ***non-health sectors*** in developing and implementing eye health/prevention of blindness policies and plans.	Ministries of Health to identify and engage other sectors. Share experiences with WHO.	Assist Member States in identifying and engaging non-health sectors. Collate and share Member State experiences.	Advocate across sectors on the added value of multi-sectoral work. Provide financial and technical capacity to multisectoral activities (e.g. water and sanitation). Support Member States in collecting and disseminating experiences.
3.2 Enhance effective international and national ***partnerships and alliances***.	Promote participation and where necessary establish partnerships and alliances that harmonize and align with national priorities, policies and plans.	Where appropriate participate in and lead partnerships and alliances that support, harmonize and align with Member State priorities, policies and plans.	Promote participation and actively support partnerships and alliances that harmonize and align with Member States' priorities, policies and plans.

3.3 Integrate eye health into ***poverty reduction strategies, initiatives and socioeconomic policies.***	Identify and incorporate eye health in relevant poverty reduction strategies, initiatives and socioeconomic policies.	Develop and disseminate key messages for policy makers. Advise Member States on ways to include eye health/prevention of blindness in poverty reduction strategies, initiatives and socioeconomic policies.	Advocate for the integration of eye health into poverty reduction strategies, initiatives and socioeconomic policies.

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Annex 1

Zero draft "Universal access to eye health: a global action plan, 2014-2019"

Vision

A world in which no one is needlessly visually impaired, where those with unavoidable vision loss can achieve their full potential, and there is universal access to comprehensive eye care services.

Cross-cutting Principles

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 with blindness and visual impairment should be empowered to play a role in society equal to those with normal vision.

Goal

To reduce blindness and visual impairment as a global public health problem

Indicators: (1) Magnitude of blindness in the world; (2) Magnitude of severe and moderate visual impairment in the world
Targets: see options in Annex 3

Purpose

To improve eye health through comprehensive eye care services integrated in health systems.

Indicators: (1) Eye care personnel per million population; (2) Cataract surgical rate

Objectives and Indicators

1. Evidence generated and used to advocate for increased political and financial commitment of Member States for eye health.	2. National policies, plans and programmes for eye health which are integrated into national health systems developed and/or strengthened and being implemented along the lines of the WHO health system building blocks.	3. Multisectoral engagement and effective partnerships for eye health strengthened.
Indicators: *(1) Number (%) of Member States that have undertaken and published prevalence surveys over the last 5 years in 2018* *(2) Number (%) of Member States completed and published eye care service assessment over last 5 years in 2018* *(3) Observation of World Sight Day*	*Indicators:* *(1) Number (%) of Member States with policies and/or plans for eye health.* *(2) Number (%) of Members States with an eye health/prevention of blindness committee, and/or a national prevention of blindness coordinator, or equivalent mechanism in place.* *(3) Number (%) of Member States that include products for eye care as part of their national list of essential medicines.*	*Indicators:* *(1) Number (%) Member States that refer to a multisectoral approach in their national eye health/prevention of blindness plans and policies.* *(2) The WHO Alliance for the Global Elimination of Blinding Trachoma by the year 2020, African Programme for Onchocerciasis Control, and Onchocerciasis Elimination Program for the Americas delivering on their strategic plans.* *(3) Number (%) of Member States having eye health incorporated into relevant poverty reduction strategies, initiatives and wider socioeconomics policies.*

Annex 2:

National indicators for prevention of avoidable blindness and visual impairment

Rationale

The need for standardised approach to periodic monitoring of prevention of blindness and visual impairment activities has been repeatedly recognized by Member States, and reflected in Objective 5 of Resolution WHA62.1 Action plan for the prevention of avoidable blindness and visual impairment. To assist Member States with their periodic data collection, a set of indicators has been identified, based on previous experiences of WHO in monitoring prevention of blindness and visual impairment activities at national level, availability of data and feasibility of their collection. As the capacity of Member States to collect data and to add new indicators to those already in use may be limited, three indicators have been proposed for national use:

1) *Prevalence of blindness and visual impairment and their causes*, to understand the magnitude of blindness and visual impairment and the eye conditions causing them in order to identify needs, assess the impact of intervention, and record trends

2) *Number of eye care personnel by cadre,* to understand the availability of the eye health workforce in order to identify gaps, adjust plans for capacity building through human resource development, and record trends

3) *Cataract Surgical Rate (number of cataract surgeries performed per year per million population)*, to monitor surgical services for the leading cause of blindness globally, and to use as a proxy indicator for eye care service provision, and record trends

Indicators and their definitions

1. Prevalence of blindness and visual impairment and their causes

PURPOSE / RATIONALE	To measure the magnitude of blindness and visual impairment and monitor progress in eliminating avoidable blindness and in controlling avoidable visual impairment.
DEFINITION	Prevalence of visual impairment and blindness and their causes, preferably disaggregated by age and gender
PREFERRED DATA COLLECTION METHODS	Methodologically sound representative prevalence surveys provide the most reliable method. Additionally, the Rapid Assessment of Avoidable Blindness (RAAB) and the Rapid Assessment of Cataract Surgical Services are two standard methodologies to obtain results for people in the age-group with the highest prevalence of blindness and visual impairment, that is, those over 50 years of age.
UNIT OF MEASUREMENT	Prevalence of blindness and visual impairment determined from population surveys.
FREQUENCY OF DATA COLLECTION	At national level at least every 10 years.

SOURCE OF DATA	Ministry of Health or national prevention of blindness/ eye health coordinator/committee.
DATA DISSEMINATION	WHO to periodically update the global estimates on the magnitude and causes of blindness and 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 DATA COLLECTION METHODS	Registers of national professional and regulatory bodies.
UNIT OF MEASUREMENT	Number of ophthalmologists per 1,000,000 population.
FREQUENCY OF DATA COLLECTION	Annually
LIMITATIONS	Does not reflect the proportion of ophthalmologists who are not surgically active, clinical output e.g. sub-specialists, performance, and quality of interventions. Unless disaggregated, does not reflect geographic distribution.
INFORMATION PROVIDED BY	Ministry of Health or national prevention of blindness/ eye health coordinator/committee.
DATA DISSEMINATION	WHO to annually issue 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 DATA COLLECTION METHODS	Registers of national professional regulatory bodies.

UNIT OF MEASUREMENT	Number of optometrists per 1,000,000 population.
FREQUENCY OF DATA COLLECTION	Annually
LIMITATIONS	Numbers do not denote performance, especially 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.
INFORMATION PROVIDED BY	Ministry of Health or national prevention of blindness/eye health coordinator/committee.
DATA DISSEMINATION	WHO to annually issue 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 characterised 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, ophthalmic administrators.
DEFINITION	Numbers of allied ophthalmic personnel comprising professional categories which need to be specified by a reporting Member State
PREFERRED DATA COLLECTION METHODS	Compilation of national data from sub-national (district) data from government, non-government and private eye care service providers.
UNIT OF MEASUREMENT	Numbers of allied ophthalmic personnel per 1,000,000 population.
FREQUENCY OF DATA COLLECTION	At least every in 5 years
LIMITATIONS	Numbers do not denote performance, especially 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.

INFORMATION PROVIDED BY	Ministry of Health or national prevention of blindness/eye health coordinator/committee.
DATA DISSEMINATION	WHO to annually issue a global update based on the national data provided by Member States

3. Cataract Surgical Rate

PURPOSE / RATIONALE	Globally, cataract remains the leading cause of blindness. Visual impairment and blindness from cataracts are avoidable because an effective mode of treatment (cataract extraction with implantation of an intra-ocular lens) is both safe and efficacious to restore sight. Cataract Surgical Rate (CSR) is a quantifiable measure of cataract surgical service delivery. CSR is a tool to set targets within countries rather than for inter-country 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 million population
PREFERRED DATA COLLECTION METHODS	Government health information records; surveys
UNIT OF MEASUREMENT	Number of cataract operations performed numerator and 1 million as the unit multiplier
FREQUENCY OF DATA COLLECTION	Annually at national level. In larger countries it is desirable to collate data at sub-national 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 non-government sectors.
COMMENTS	For calculations, use official sources of population data (United Nations).
CONTACT PERSON	Ministry of Health or national prevention of blindness/eye health coordinator/committee.
DATA DISSEMINATION	WHO to annually issue a global update based on the national data provided by Member States

Annex 3:

Global targets for prevention of avoidable blindness and visual impairment

Action plan 2009-2013 did not identify targets for reducing the magnitude of blindness and visual impairment. Member States and international partners may wish to consider whether in the Action plan 2014-2019 it would be helpful to identify global targets for the reduction in blindness and visual impairment through the implementation of the plan (to report on the implementation of the action plan in 2019, the data need to be available by 2018). Three possible options are presented below:

Option A

1. Magnitude of blindness in the world reduced from 39 million (2010) to 31 million (2018)

2. Magnitude of severe and moderate visual impairment in the world reduced from 246 million (2010) to 214 million (2018)

Rationale

The reduction is based on a linear trend between 2004, 2010 and 2018.

Advantages

- Clear targets that the plan is aiming for
- A target focusses political and technical inputs
- Global health has experience of developing and using targets that are often aspirational rather than fully evidence based

Disadvantages

- No scientific evidence underpinning an assumption for a linear trend. The targets selected may or may not be appropriate.
- Methods used for 2004 and 2010 estimates not truly comparable, makes assumptions even more difficult
- Wide confidence intervals with the 2004 and 2010 estimates make setting of 2018 targets difficult
- For such a target to be measured, sufficient national data points need to be available

Option B

Undertake further work to develop global targets

Rationale

This option allows for further analysis of the available epidemiological data and for conducting the necessary research on identifying trends which would substantiate the development of evidence-based global targets for the lifespan of the plan. It would also allow for formulating an evidence-based position on the feasibility of the targets and national and sub national data required for global estimates.

Advantages

- More scientifically robust approach

Disadvantages

- Even allowing for further work, significant assumptions are likely underpin the targets set
- Additional resources required to undertake this work
- Recommendations emerging from this work may be that global targets cannot be set on the basis of current and extrapolated data

Option C

Concluding that global targets are not feasible, encouraging Member States to refer to their national targets

Rationale

Development of global targets is impractical and politically not sufficiently helpful for inclusion in the plan

Advantages

- Insufficiently evidence based targets are not included
- Resources that would be used for this work could be allocated elsewhere

Disadvantages

- There will not be any overarching global target on the magnitude of blindness and visual impairment for the action plan