



PAN AMERICAN HEALTH ORGANIZATION
WORLD HEALTH ORGANIZATION



144th SESSION OF THE EXECUTIVE COMMITTEE

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Provisional Agenda Item 4.15

CE144/20 (Eng.)

11 May 2009

ORIGINAL: ENGLISH

PLAN OF ACTION ON THE PREVENTION OF AVOIDABLE BLINDNESS AND VISUAL IMPAIRMENT

Introduction

1. In 1979, the Pan American Health Organization (PAHO) Directing Council approved Resolution CD26.R13 requesting the Director to support governments in the elaboration of national plans on the prevention of blindness. The regional strategy document *Prevention of Blindness in the Americas* (CD34/9) was approved by the 34th Directing Council in 1989. The World Health Organization's Fifty-Sixth World Health Assembly approved Resolution WHA56.26, which requested the Director to strengthen WHO's collaboration with Member States on the Global Initiative for the Elimination of Avoidable Blindness. In Resolution WHA59.25, the World Health Assembly reaffirmed its commitment to give priority to the prevention of blindness. Resolution CD47.R1 of the 47th Directing Council urges Member States to adopt national policies to prevent disability. PAHO's Strategic Plan 2008-2012 (Official Document No. 328) includes visual impairment and blindness in one of the expected results. By acknowledging at the global level and in Latin America and the Caribbean that prevention of blindness and eye care are already priorities, it now becomes necessary for the coming years to revise and reaffirm the regional objectives regarding the prevention of blindness.

Background

2. Several blindness surveys conducted by PAHO in recent years have demonstrated that the prevalence of blindness and visual impairment is more than twice as high among rural and poor populations and that the coverage and quality of eye care services is very low compared to those among the more wealthy urban areas. In many countries, it is estimated that for every one million persons, 5,000 are blind and 20,000 are visually

impaired; at least two-thirds of these are attributable to treatable conditions.¹ Visual impairment and associated disability can lead to discrimination and exclusion, and can become a cause of poverty. Reducing blindness and visual impairment relieves poverty, improves opportunities for education and employment of the population, and further reduces health inequities.

3. Ocular health interventions are achievable, measurable, and cost-effective; in order to prevent cases of blindness and visual disability in the Region, a full range of services must be offered which seeks to increase access to eye health services for rural residents and indigenous groups, women, and segments of the population that are economically and socially marginalized. In Latin America and the Caribbean, prevention of blindness and proper eye care already are priorities in many countries. Significant progress has been achieved in the prevention of avoidable blindness, and access to eye care services has been increasing in most countries that have received support from PAHO, international partners, and bilateral cooperation in the development of their national eye care plans.²

4. This regional plan of action document was prepared utilizing a very participatory methodology that included both national and international partners and incorporated the input of various working groups organized by different countries linked with the global program at WHO and with the regional programs and plans of diabetes, neonatal care, health of older persons, and neglected diseases.

Analysis

5. Blindness poses a serious public health, social, and economic problem for the Region's Member States. Globally, up to 80% of blindness is avoidable: it either results from conditions that could have been prevented or conditions that may be successfully treated to restore sight. In spite of international efforts made to date, the burden of blindness may increase in the future due to population growth and aging. At the country level, ministries of health need to develop national ocular health plans, implement these programs, mobilize the necessary resources to strengthen the supply of eye care services, and integrate eye care into national health systems and primary health care services, in order to ensure access to quality eye care by the entire population.

6. Five conditions have been identified as immediate priorities in Latin America. Cataract is responsible today for close to 50% of global blindness. The prevalence of

¹ Silva-JC; Bateman-J.B; Contreras F: Eye disease and care in Latin America and the Caribbean. Survey of Ophthalmology 47(3):267-274; May-June 2002.

² Pan American Health Organization. Health in the Americas. Health Conditions and Trends. Ocular Health. Regional Volume. pp.141-142, Washington DC, 2007 at:
<http://www.paho.org/HIA/homeing.html>.

blindness in the population aged 50 years and older varies from 2.3% to 3% in national surveys; it is higher among women than among men;³ in urban areas of Argentina, it is 1.4%,⁴ and it is nearly 4% in rural areas of Peru and Guatemala.^{5,6} The proportion of blindness due to cataract in persons age 50 years and older varied from 39% in the urban areas of Argentina and Brazil to about 65% in the rural areas of Guatemala and Peru. National assessments revealed that close to 60% of blindness is due to cataract. Eye care services coverage for eyes with severe visual impairment is close to 80% in well-developed urban areas, but it is under 10% in rural and remote areas. Cataract surgery can be one of the most cost-effective of all health interventions.

7. The prevalence of diabetes among adults in Latin America and the Caribbean varies from country to country. More than 75% of patients who have had diabetes mellitus for more than 20 years will have some form of diabetic retinopathy. After 15 years of diabetes, approximately 2% of people become blind, and about 10% develop severe visual impairment.⁷ In Barbados, 18% of persons of African descent between the ages of 40 and 84, report having a history of diabetes mellitus; among people with diabetes 30% have diabetic retinopathy and 1% has proliferative diabetic retinopathy. In the Barbados Eye Studies, open-angle glaucoma (OAG) prevalence in the Afro-Caribbean population over age 40 years is more than 7%, approximately 2% of individuals over age 40 are blind and, of that percentage, one-third of the blindness is due to OAG. Therefore, OAG is a major public health problem in the Afro-Caribbean population, where it is a major cause of visual loss and the leading cause of irreversible blindness.⁸

8. About 3% of the world's blind population are children. However, because children have a lifetime of blindness ahead of them, the number of "blind person years" resulting from blindness starting in childhood is second only to cataract.⁹ In Latin America and the Caribbean, an estimated 42,000 infants with a birthweight of less than 1,500 g require screening for retinopathy of prematurity (ROP), and 4,300 need treatment

³ Limburg H, Barria von-Bischhoffshausen F, Gomez P, Silva JC, Foster A. Review of recent surveys on blindness and visual impairment in Latin America. *Br J Ophthalmol*. 2008 Mar;92:315-9.

⁴ Nano ME, Nano HD, Mugica JM, Silva JC, Montana G, Limburg H. Rapid assessment of visual impairment due to cataract and cataract surgical services in urban Argentina. *Ophthalmic Epidemiology* 2006 Jun; 13(3):191-197.

⁵ Pongo Aguila L, Carrión R, Luna W, Silva JC, Limburg H. Ceguera por catarata en personas mayores de 50 años en una zona semirural del norte del Perú. *Rev Panam Salud Pública* 2005; 17(5/6): 387-931.

⁶ Beltranena F, Casasola K, Silva JC, Limburg H. Cataract blindness in 4 regions of Guatemala: results of a population-based. Survey. *Ophthalmology*. 2007 Aug;114(8):1558-63.

⁷ World Health Organization: Prevention of Blindness from Diabetes Mellitus. Geneva: WHO, 2006.

⁸ Pan American Health Organization. Technology and Health Services Delivery. Health Services Organization Series: Eye Diseases in people 40-84. The Barbados Eye Studies: A summary report. Washington ,DC: PAHO; 2006. (THS/OS/06).

⁹ Rahi JS, Gilbert CE, Foster A, et al. Measuring the burden of childhood blindness. *Br J Ophthalmol* 1999;83(4):387-8.

every year. If left untreated, 50% of these babies will become blind.¹⁰ Neonatal conjunctivitis may represent a risk for blindness in newborns. Good vision is vitally important for education, and screening at school age is recommended. A study in Chile revealed that more than 7% of children could benefit from the provision of proper eyeglasses.¹¹ The incidence of myopia is higher among 11–15-year-olds, and this is the highest priority age group for interventions in refractive errors.¹² Congenital cataract is a defect associated with congenital rubella syndrome (CRS). Between 1998 and 2008, the rubella elimination initiative reduced the number of cases by 98% and is preventing some 6,000 cataracts cases annually in children.

9. Despite major advances in eye care, there is a significant number of persons in all age groups who cannot have their sight fully restored. The majority of these have some residual vision that can be enhanced or made more useable and utilized for tasks that require vision. Low-vision services are aimed at people who have residual vision that can be used and enhanced by specific aids. The benefits of low-vision care include reduction of the functional impact of vision loss, facilitation of child education and development, maintenance of independence and productive activity and enhancement of quality of life.

10. The PAHO Prevention of Blindness Program works with the countries of the Region in an epidemiologic assessment that proved to be a very strong advocacy tool to secure the necessary political support. The Program prioritizes achievable, measurable, cost-effective, and sustainable interventions and has developed ongoing international partnerships and alliances with Sight Savers International, Caribbean Council for the Blind, CBM, International Agency for the Prevention of Blindness (IAPB), VISION 2020, and academic and research institutions sharing the same Vision, thereby establishing a collective knowledge base and improving the use of resources. At the national level, partnerships include governments, donors, civil society, and the private and nonprofit sectors. The PAHO Prevention of Blindness Program obtains resources from the regular budget and extra budgetary funds.

Goals and Objectives

GOAL 1: REDUCE BLINDNESS AND VISUAL IMPAIRMENT IN ADULTS

Objective 1.1: Reduce cataract blindness

In Latin America and the Caribbean, cataract (opacification of the lens) is the single most important cause of blindness; cataract surgery has been shown to be one of the most

¹⁰ Zin A. Reducing Blindness in Premature Babies. Vision For Children; A global overview of Blindness, Childhood and Vision 2020 The Right To Sight. 2007.

¹¹ Maul E, Barroso S. et. all. (2000) – Refractive error study in children: results from La Florida, Chile: Am J Ophthalmol. Apr; 129(4): 445-54.

¹² Mutti DO, Zadnik K, Adams AJ. Myopia. The nature versus nurture debate goes on. Invest Ophthalmol Vis Sci 1996;37:952-7.

cost-effective of all health care interventions. Most cataracts are age-related and cannot be prevented, but cataract surgery with insertion of an intraocular lens (IOL) is highly effective, providing almost immediate visual rehabilitation.

Indicators

- Increase the number of countries that conducted a Rapid Assessment of Cataract Surgical Services (RACSS) or a Rapid Assessment of Avoidable Blindness (RAAB) from 9 to 14 by the year 2013.
- Reach a cataract surgical rate (CSR) of 2,000 per 1 million population per year in the majority of countries by the year 2013.

Proposed actions for Member States

- 1.1.1 Make national assessments of cataract surgical services, including of their availability, access, affordability, and quality, as well as of their collection and management of information data.
- 1.1.2 Measure prevalence of cataract blindness, determine services coverage level, and identify barriers to access in selected countries.
- 1.1.3 Develop district-specific cataract service plans with measurable targets that address equity (availability, accessibility, affordability) and quality of services.
- 1.1.4 Establish a primary eye care system to detect and refer eye diseases and educate the population in basic eye care and prevention of blindness.
- 1.1.5 Develop a human resources development plan for cataract surgical services.
- 1.1.6 Promote high-quality surgery and ensure satisfactory visual outcomes and patient satisfaction.
- 1.1.7 Develop appropriate communication strategies for the target population.

Proposed actions for the Secretariat

- 1.1.8 Provide technical cooperation for the design of Rapid Assessment of Avoidable Blindness (RAAB) studies.
- 1.1.9 Develop a situation analysis of cataract surgical services at the regional and national levels.
- 1.1.10 Advocate and provide technical cooperation in the development and implementation of national cataract plans.
- 1.1.11 Mobilize resources with international partners.

Objective 1.2: Reduce the prevalence of blindness from diabetic retinopathy

Evidence-based treatment is available to significantly reduce the risks for blindness and for moderate vision loss. Clinical studies spanning more than 30 years have shown that appropriate treatment can reduce the risks by more than 90%.

Indicators

- Situation analysis conducted in five selected countries by the year 2013.
- At least three of the selected countries integrate early detection and timely treatment programs for diabetic retinopathy into non-communicable chronic diseases programs by the year 2013.

Proposed actions for Member States

- 1.2.1 Integrate blindness prevention strategies into national diabetes programs and ensure their incorporation into noncommunicable chronic diseases programs.
- 1.2.2 Develop public awareness programs focusing on high-risk groups, such as Hispanics and persons of African descent, and train primary care physicians to refer patients with diabetic retinopathy to ophthalmologists.

Proposed actions for the Secretariat

- 1.2.3 Perform a situation analysis of the management of diabetic retinopathy in the Region as a baseline for planning and advocacy.
- 1.2.4 Conduct national assessments on services for diabetic retinopathy in selected countries.
- 1.2.5 Adapt and promote current international clinical guidelines for eye care for patients with diabetes mellitus, and adapt and promote the WHO principles for organizing eye health systems for patients with diabetic retinopathy.
- 1.2.6 Develop education packages and training programs for the general public and health care providers.

Objective 1.3: Reduce the incidence of blindness due to open-angle glaucoma (OAG) in high-risk groups

The PAHO Regional Program and national programs on the prevention of blindness shall include mechanisms for glaucoma detection and treatment for high-risk segments of the population, including persons of African descent and the Caribbean population, persons over 40 years of age, and individuals with a family history of glaucoma.

Indicator

- Increasing the number of countries carrying out glaucoma community awareness programs from three to seven by the year 2013.

Proposed actions for Member States

- 1.3.1 Include glaucoma detection as an integral part of comprehensive eye examinations for persons over 40 years of age.

- 1.3.2 Ensure that eye care units are properly equipped to provide glaucoma diagnosis and treatment.
- 1.3.3 Train professionals to implement existing evidence-based protocols.
- 1.3.4 Increase awareness among the general population of the importance of regular eye examinations and glaucoma screening for those over age 40, as well of other risk factors for glaucoma.
- 1.3.5 Provide affordable treatments and medications.

Proposed actions for the Secretariat

- 1.3.6 Utilize the available epidemiologic information to promote early detection and treatment in countries with high-risk groups.
- 1.3.7 Utilize best practices to promote and design public awareness programs and interventions.
- 1.3.8 Mobilize technical and financial resources to strengthen the national eye care services in glaucoma detection and treatment.

GOAL 2: REDUCE BLINDNESS AND VISUAL IMPAIRMENT IN CHILDREN

Objective 2.1: Reduce blindness in premature babies due to retinopathy of prematurity (ROP)

Indicator

- Increase the number of countries that have a national ROP prevention policy from 7 to 15 by the year 2013.

Prevention of blindness due to ROP is planned on three levels:

- (a) Primary prevention: reduce the incidence of ROP through improved prenatal and neonatal care.
- (b) Secondary prevention: early identification of severe cases of ROP in premature babies in neonatal care through regular examination by skilled ophthalmologists and timely treatment of those deemed to be high-risk.
- (c) Tertiary prevention: restore useful vision in children with retinal complications through vitreoretinal surgery and/or offer rehabilitation.

Proposed actions for Member States

- 2.1.1 Promote systems, networks and protocols for safe neonatal care, adequate referral, and follow-up.
- 2.1.2 Promote national ROP policies and sustainable plans.

- 2.1.3 Elaborate and promote national guidelines and minimal standards.
- 2.1.4 Train professionals (obstetricians, pediatricians, nurses, and ophthalmologists).
- 2.1.5 Ensure the availability of the necessary equipment for primary prevention, screening, and treatment.
- 2.1.6 Develop curricula for undergraduate and in-service training courses for nurses and physicians.
- 2.1.7 Improve the quality of available information on neonatal care.
- 2.1.8 Produce periodical reports based on local neonatal databases.
- 2.1.9 Provide ocular prophylaxis of newborns to prevent neonatal conjunctivitis.

Proposed actions for the Secretariat

- 2.1.10 Conduct national assessments of needs and resources.
- 2.1.11 Organize Regional and national workshops to promote advocacy and awareness.
- 2.1.12 Promote the development of Regional guidelines on neonatal care and ROP programs.
- 2.1.13 Identify and provide support to advocacy groups (e.g., parents' networks).
- 2.1.14 Include standard ROP variables in PAHO's and other available neonatal databases.

Objective 2.2: Reduce visual disability by detecting and treating uncorrected refractive errors in schoolchildren

Indicators

- Published regional document on principles about refractive errors by the year 2011.
- Increase the number of countries implementing a national standard refractive errors program as part of national eye care policies and plans from 7 to 12 by the year 2013.

The steps in the provision of refraction services for patients are as follows:

- (a) Screening: identification of individuals with poor vision which can be improved by correction.
- (b) Eye examination: to evaluate the condition of the eye and identify coexisting pathologies requiring care.
- (c) Refraction: determine what correction is required.
- (d) Dispensing: provide and supply appropriate corrective eyeglasses.
- (e) Follow-up: ensure compliance with prescription, care of the eyeglasses, repair or substitution of spectacles, if needed.

Proposed actions for Member States

- 2.2.1 Develop national guidelines for the detection and treatment of refractive errors, taking into account national realities.
- 2.2.2 Develop and follow pilot refractive error programs to identify and disseminate best practices.
- 2.2.3 Promote the availability of affordable eyeglasses and facilitate their production through the establishment of low-cost laboratories.
- 2.2.4 Increase public awareness through information, education, and communication strategies.

Proposed actions for the Secretariat

- 2.2.5 Elaborate regional principles in to guide refractive errors programs.
- 2.2.6 Standardize technology: screening kit and affordable instruments.
- 2.2.7 Develop advocacy plan for health and educational authorities.

GOAL 3: REDUCE THE BURDEN OF BLINDNESS AND VISUAL IMPAIRMENT IN THE GENERAL POPULATION

Objective 3.1: Provide comprehensive low-vision care

Comprehensive low-vision care integrates clinical eye care, low-vision, rehabilitation, and educational services at the primary, intermediary, and tertiary levels in each country. The goal is to have one comprehensive low-vision referral center and four satellite centers per each 10 million population.

Indicator

- Increase the number of countries with low-vision services from 20 to 25 by the year 2013.

Proposed actions for Member States

- 3.1.1 Develop national policies on comprehensive low-vision care.
- 3.1.2 Increase access to and demand for comprehensive low-vision services among the visually impaired population.
- 3.1.3 Train low-vision teams (eye care, low-vision therapy, rehabilitation, education, and social services) focusing on underserved geographical areas, taking into account each country's unique national profile of such professionals. Priority should be accorded to the training of low-vision therapists.
- 3.1.4 Organize courses for residents in ophthalmology in countries with low-vision services.

Proposed actions for the Secretariat

- 3.1.5 Organize low-vision courses at Regional and national congresses of ophthalmology.
- 3.1.6 Promote the establishment of resource centers for the training of trainers, curricula standardization, and technology development.
- 3.1.7 Support the organization of low-vision centers in underserved geographical areas and in countries currently without such services.
- 3.1.8 Develop a system to make low-vision aids affordable.

Time Frame

- 11. This plan of action will be implemented in 2009-2013.

Action by the Executive Committee

- 12. The Executive Committee is invited to endorse the draft plan of action and consider the following proposed resolution (Annex B).

Annexes



PAN AMERICAN HEALTH ORGANIZATION
Pan American Sanitary Bureau, Regional Office of the
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CE144/20 (Eng.)
 Annex A

ANALYTICAL FORM TO LINK AGENDA ITEM WITH ORGANIZATIONAL AREAS
1. Agenda item: 4.15. Plan of Action on the Prevention of Avoidable Blindness and Visual Impairment.
2. Responsible unit: THR - VP
3. Preparing officer: Juan Carlos Silva
4. List of collaborating centers and national institutions linked to this Agenda item: There are no collaborating centers or national institutions linked to this item of the agenda.
5. Link between Agenda item and Health Agenda for the Americas 2008-2017: Related Areas: Diminish inequities in health, reduce the burden of disease, increase the access to quality services.
6. Link between Agenda item and Strategic Plan 2008-2012: RER. 3.2, Indicator 3.2.6, RER 3.5.
7. Best practices in this area and examples from countries within the Region of the Americas: CUB, DOM, GUY, PER.
8. Financial implications of Agenda this item: For the 5-year period (2009-2013) US\$ 590,000 will be invested in personnel, and \$245,000 in activities.



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144th SESSION OF THE EXECUTIVE COMMITTEE

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Annex B
ORIGINAL: ENGLISH

PROPOSED RESOLUTION

PLAN OF ACTION ON THE PREVENTION OF AVOIDABLE BLINDNESS AND VISUAL IMPAIRMENT

THE 144th SESSION OF THE EXECUTIVE COMMITTEE,

Having reviewed the draft Regional Plan of Action on the Prevention of Avoidable Blindness and Visual Impairment (Document CE144/20),

RESOLVES:

To recommend that the Directing Council adopt a resolution along the following lines:

PLAN OF ACTION ON THE PREVENTION OF AVOIDABLE BLINDNESS AND VISUAL IMPAIRMENT

THE 49th DIRECTING COUNCIL,

Having considered Document CD49/___ on the Plan of Action on the Prevention of Avoidable Blindness and Visual Impairment;

Recalling Resolution WHA56.26 of the World Health Assembly on the elimination of avoidable blindness;

Noting that visual disability is a prevalent problem in the Region and is related to poverty and social marginalization;

Aware that most of the causes of blindness are avoidable and that treatments available are among the most successful and cost-effective of all health interventions;

Acknowledging that preventing blindness and visual impairment relieves poverty and improves opportunities for education and employment; and

Appreciating the efforts made by Member States in recent years to prevent avoidable blindness, but mindful of the need for further action,

RESOLVES:

1. To approve the Plan of Action on the Prevention of Avoidable Blindness and Visual Impairment.
2. To urge Member States to:
 - (a) establish national coordinating committees to help develop and implement national blindness prevention plans;
 - (b) include prevention of avoidable blindness and visual impairment in national development plans and goals;
 - (c) advance the integration of prevention of blindness and visual impairment in existing plans and programs for primary health care at the national level, ensuring their sensitivity to gender and ethnicity;
 - (d) support the mobilization of resources for eliminating avoidable blindness;
 - (e) encourage partnerships between the public sector, nongovernmental organizations, private sector, civil society, and communities in programs and activities that promote the prevention of blindness; and
 - (f) encourage intercountry cooperation in the areas of blindness and visual impairment prevention and care.
3. To request the Director to:
 - (a) support the implementation of the Plan of Action on the Prevention of Avoidable Blindness and Visual Impairment;
 - (b) maintain and strengthen PAHO Secretariat's collaboration with Member States on the prevention of blindness; and
 - (c) promote technical cooperation among countries and the development of strategic partnerships in activities to protect ocular health.



PAN AMERICAN HEALTH ORGANIZATION
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CE144/20 (Eng.)
 Annex C

Report on the Financial and Administrative Implications for the Secretariat of the Resolution Proposed for Adoption

1. Agenda item: 4.15. Plan of Action on the Prevention of Avoidable Blindness and Visual Impairment.
2. Linkage to Program Budget 2008-2009: (a) Area of work: THR-VP (b) Expected result: OSER THS.04.01: Normative and operational strengthening of ocular health and hearing programs.
3. Financial implications (a) Total estimated cost for implementation over the lifecycle of the resolution (estimated to the nearest US\$ 10,000, including staff and activities): For the 5-year period of 2009-2013, expense on personnel will be of US \$590,000 and expense on activities \$245,000. (b) Estimated cost for the biennium 2008-2009 (estimated to the nearest US\$ 10,000, including staff and activities): Personnel: \$236.000, activities \$98.000. (c) Of the estimated cost noted in (b), what can be subsumed under existing programmed activities?
4. Administrative implications (a) Indicate the levels of the Organization at which the work will be undertaken): THR. (b) Additional staffing requirements (indicate additional required staff full-time equivalents, noting necessary skills profile): No. (c) Time frames (indicate broad time frames for the implementation and evaluation): Evaluation at the end of 2013.