It is necessary to train future ophthalmologist in eye health topics, for which reason a proposed community health course for residents has been developed with the aim of providing them with the tools they will need to develop community health projects to address the pathologies that cause blindness or reduced vision and that affect the most vulnerable population while also emphasizing the advocacy that makes these things possible. We must also motivate residents to engage in research as a tool for better clinical practice and to follow professional ethics that protect the interests of patients including best possible care.

**The objective** is to provide national ophthalmological societies or other ophthalmology organizations in each country a guide for development of a community eye health course that can be incorporated into residency programs and can be modified in accord with the needs of individual countries and the interests of the residents. If we achieve this objective the struggle against visual disability will be advanced, but most of all this will help defend the field of ophthalmology against other groups not properly trained.

**Community health courses** have already been developed for residents in Brazil, Paraguay, Chile, Peru, Mexico, and Argentina, while we hope that in the future other countries will be added and that medical societies will be who organizes them.

The proposal has the support of the **committee for the prevention of blindness of the Pan-American Association of Ophthalmology (PAAO)**, the **International Agency for the Prevention of Blindness (IAPB)**, and the **Pan American Health Organization (PAHO)**, and receives logistical support from CBM and ORBIS. A summary of its modules as well as an expanded version have been provided, with the topics covered being adaptable to local circumstances. The following persons contributed to the expanded version: Juan Batlle, Francisco Contreras C, Rosario Espinoza, Pedro Gomez, César Gonzales T, Luz Gordillo, Luciene Fernandes, Francisco Martinez C, Miriam Cano, Maria Eugenia Nano, Fernando Peña, Byron Polanco, Martin Ruppenthal, Juan Carlos Silva, Van Lansingh, Mariano Yee, and Andrea Zin.
The following modules are included in the proposed eye health course for residents:

MODULE 1: Concepts of blindness and visual impairment
MODULE 2: Eye health strategies
MODULE 3: Cataract
MODULE 4: Refractive error
MODULE 5: Low Vision
MODULE 6: Glaucoma
MODULE 7: Diabetic retinopathy
MODULE 8: Childhood blindness
MODULE 9: geriatric ophthalmology
MODULE 10: Advocacy, ethics, management, and community health
MODULE 11: Research
MODULE 12: Residency programs

MODULE 13: VISION 2020 PROJECT: Planning Putting what has been learned into the development of the project
**COMMUNITY EYE HEALTH COURSE FOR RESIDENTS**

Welcome
Course objectives

### MODULE 1: Concepts of blindness and visual impairment

- Definitions of blindness and visual impairment
- Prevalence and causes of blindness worldwide and in Latin America:
  - Changes in blindness over time
  - Tropical diseases and those associated with poverty: leprosy, trachoma, and onchocerciasis
- Epidemiology and statistics on blindness RAAB, RACCS
  - Research and the RAAB and RACCS studies
  - Causes of blindness by country: What does the RAAB tell us?
- VISION 2020: The Right to Sight - How does it work?
  - Socioeconomic impact of blindness
  - National strategies associated with the Vision 2020 program
- PAHO priorities in visual health

### MODULE 2: Eye health strategies:

- What is community eye health?
- Eye health programs: eye-health priorities
- Strategies in eye health: Primary care and the eye health system
- The importance of Teamwork
  - The role of the resident in blindness prevention
  - The role of the ophthalmic assistant and counselors in the eye health team
- The role of non-governmental organizations
- The future of ophthalmology in Latin America The role of the PAAO
  - The role of continuing education
  - Development of pathology protocols

### MODULE 3: CATARACT:

- Blindness due to cataract: Public health aspects (size of the problem)
  - Strategies for increasing the number of surgeries: breaking through barriers
- Cataract surgical rate - How many surgeries should we do?
  - Changes in the CSR in Latin America
- Classification and complexity: Is cataract difficult?
- Appropriate technology: Small-incision surgery
- The role of phacoemulsification in public health
  - How to reduce cataract surgery costs
- Characteristics of a high-volume service
- Monitoring the cataract surgical rate pre-and post-operatively

### MODULE 4: REFRACTIVE ERROR:

- Definition and magnitude of refractive error
- Refractive error as a cause of poor vision: the size of the problem
Strategies for managing refractive error (primary care and/or surgery)
Refraction in the child: national programs
Strategy for improving compliance with use of eyeglasses

**MODULE 5: LOW VISION:**
How to develop a low vision clinic
Definition, assessment, and conduct in the case of low vision
Vision aids in the treatment of low vision
Management of low vision patients with glaucoma and retinopathy
Vision rehabilitation for the blind patient

**MODULE 6: GLAUCOMA:**
Glaucoma: definition and magnitude in public health
Clinical features to be assessed in the diagnosis of glaucoma
- Is community screening possible?
- Quaternary prevention: Avoid unnecessary medical treatment
- Functional and structural assessment of glaucoma
World Glaucoma Day: the strategy for spreading the word
Treatment and follow-up in public health
- Medical management of glaucoma in the public health system
- Non-medical management of glaucoma in the public health system

**MODULE 7: DIABETIC RETINOPATHY:**
Diabetes: A developing epidemic (magnitude and the current problem)
- The Value of Education in Prevention
How to detect Retinopathy Telemedicine
How to classify retinopathy and simplified management
How to perform the treatment
- Comprehensive management of diabetic retinopathy
- Current management of macular edema
Evidence in the Prevention and Treatment of Retinopathy

**MODULE 8: CHILDHOOD BLINDNESS:**
Magnitude and causes of childhood blindness: Vitamin A deficiency
Program for retinopathy of prematurity: how to approach it
- Early intervention and vision stimulation in ROP
Initiatives for avoiding blindness in childhood cataract: Congenital rubella
- Appropriate management of childhood cataract (congenital)
Amblyopia and strabismus: cost-benefit analysis

**MODULE 9: GERIATRIC OPHTHALMOLOGY**
Projected Aging of the Population
The cost of blindness associated with aging
Refractive surgery and the elderly
Management and prevention: Age Related Macular Degeneration
MODULE 10: ADVOCACY, ETHICS, AND COMMUNITY HEALTH

What is advocacy? The defense of ophthalmology
The need for advocacy as a public health strategy
The need commitment to public health
Ethics in ophthalmology
  - The limits of the ophthalmology profession
  - Bioethics in prevention of blindness and research
Ethics and commitment to the patient’s interests
  - Quaternary prevention: Avoiding unnecessary medical treatment or studies
Management and Marketing: a serious need
The role of the optometrist in the Southern Cone: open discussion

MODULE 11: RESEARCH:

Evidence-based medicine versus experience
  - Ethics in research
Bases for performing research: How to conduct research and public health
  - Epidemiology and basic biostatistics
  - Design of the study to reach a research protocol
How can I analyze what I read?
  - Literature search (EMBASE, LILAC, SCIELO, PUBMED) and the PICOT strategy

MODULE 12: RESIDENCY PROGRAMS:

Strengths and weaknesses of training programs
Why work in blindness prevention?
The role of the PAAO in medical education
  - Requirements for residencies: PACUPO (Pan-American Council of University Professors in Ophthalmology)
How to optimize the work environment in residency programs

MODULE 13: VISION 2020 PROJECT: Planning

Planning and management of a Vision 2020 project
  - What is a project?
  - How to get from here to there
  - How to perform a situation analysis
  - The logical framework as a planning tool
  - Project sustainability: leadership, administration, and financial analysis

MODULE 14: PUTTING LEARNING INTO PRACTICE

A one million population district is considered, with an X % of adults and children under 15, with each entity having a primary and secondary goal and refining the Project at the end of the course.
Discussion: Which project to carry out and how to carry out a project
Formulation of a project and its presentation by participants

Closing Words