

# International Council of Ophthalmology: Refocusing Ophthalmic Education in the Asia-Pacific Region and Beyond

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**Abstract:** The International Council of Ophthalmology (ICO) is a global organization with a regional focus. Working in partnership with supranational and ICO member societies, the ICO is building a “World Alliance for Sight” to improve access to the highest-quality eye care worldwide. Designed to preserve and restore vision on an international scale, the ICO initiative, “Refocusing Ophthalmic Education,” enhances ophthalmic education of residents, subspecialists, medical students, and allied eye care personnel by redefining the most effective ways to teach and in creating beneficial educational opportunities. The “Teaching the Teachers” program helps ophthalmic educators incorporate more effective methods of training and continuing professional development to meet societal needs, achieved in part through regional courses for residency program directors; symposia, and keynote talks presented by ICO’s World Ophthalmology Educational Colloquium, Conferences for Ophthalmic Educators, and ophthalmic surgical competency rubrics. Recognizing that standardized curricula are essential for consistent ophthalmic education, the ICO has developed a curricular framework whereby goals, expectations, knowledge base, competencies, and technical training are delineated. The ICO is defining worldwide models of team training and compiling best practice, which will include training-program accreditation to ensure improvement in the education of ophthalmologists. International Council of Ophthalmology Web-based teaching courses, a Webinar Network, and a technology blog further support information and communication technologies for teaching and learning. At the ICO’s Center for Ophthalmic Educators ([educators.icoph.org](http://educators.icoph.org)), trainers will find valuable teaching resources in multiple languages as well as ways to share ideas and collaborate with peers and other ophthalmic educators.

**Key Words:** International Council of Ophthalmology, ophthalmic education, continuing professional development, ophthalmic educators (*Asia-Pac J Ophthalmol* 2012;1: 255–258)

The global distribution of avoidable blindness based on population in each of the World Health Organization regions shows that Southeast Asia and the Western Pacific have the highest percentage of avoidable blindness (28% and 26%, respectively). Cataract (47.9%) remains the leading cause of visual impairment in all areas of the world, except for industrialized countries.<sup>1</sup>

A critical step in meeting the goals of VISION 2020 and eliminating avoidable blindness in the Asia-Pacific region and beyond is strengthening global learning through the provision

of ophthalmic educational resources, teaching tools, and relevant continuing professional development (CPD).

The International Council of Ophthalmology (ICO) is a global organization with a regional focus. Working in partnership with supranational and ICO member societies to build a “World Alliance for Sight,” the ICO is actively engaged in improving access to the highest-quality eye care through numerous ophthalmic educational initiatives, including conferences and courses for ophthalmic educators in the Asia-Pacific region and across the globe.

The ICO’s international fellowship-training program was developed to expand subspecialty care and strengthen training of ophthalmology residents. These 3-month international fellowships help promising young ophthalmologists, especially those from developing countries, improve their practical skills and broaden their perspectives of ophthalmology. International Council of Ophthalmology fellows are expected to bring the acquired knowledge and skills back to their country of origin and take part in programs to preserve and restore vision. Supported by funds from the ICO, private donations, industry, nongovernmental organizations, and ICO member societies, approximately 60 ICO fellowships can be awarded each year, and there have been more than 350 ICO fellowships since the program began in 2000.

To further train ophthalmologists and eye care professionals worldwide, the ICO has developed curricula for ophthalmology residents and others, which is offered through its Center for Ophthalmic Educators, along with teaching tools and online resources presented in a variety of languages.<sup>2</sup>

Revenues supporting the ICO’s commitment to a World Alliance for Sight come in part from the ICO Foundation and from the World Ophthalmology Congress (WOC), which is sponsored by the ICO. First held in 1857, the WOC is the longest continuous international medical meeting. Held in a different region every 2 years, the WOC provides an international audience of ophthalmologists with stimulating scientific and educational programs addressing all subspecialties and related interests in ophthalmology.

With a focus on preserving and restoring vision on a global scale, the ICO developed the initiative, “Refocusing Ophthalmic Education,” to enhance ophthalmic education of ophthalmology residents, subspecialists, medical students, and allied eye care personnel. The ICO and their partners are engaging ophthalmic educators and ophthalmologic society leaders in redefining the most effective ways to teach and in creating more beneficial educational programs. The initiative, which is being achieved through the work of hundreds of volunteer ophthalmologists worldwide, has 6 main components:

1. “Teaching the Teachers”
2. Curricula and Expectations for Training Programs
3. Training Teams to Meet Public Health Care Needs
4. Accreditation and Certification
5. Continuing Professional Development
6. Information and Communication Technologies for Teaching and Learning.

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## “TEACHING THE TEACHERS”

The ICO’s “Teaching the Teachers” program is designed to improve the educational effectiveness of ophthalmic teachers by introducing them to principles of adult learning, curriculum development, teaching methods, and methods of assessment, in order to enable teachers and students to connect efficiently and economically. The ICO is working to help ophthalmic educators incorporate more effective methods of training and CPD in several ways: Regional Courses for Residency Program Directors, World Ophthalmology Educational Colloquium (WOEC), Conferences for Ophthalmic Educators, and Ophthalmic Surgical Competency Assessment Rubrics (OSCARs).

### Regional Courses for Residency Program Directors

Sponsored by the ICO Foundation and funded by The Allergan Foundation, Regional Courses for Residency Program Directors have been conducted by the ICO since 2004. The courses target methods of instruction, skill assessment, behavior adjustment, and competence measurement. The courses use a variety of teaching methods, including traditional didactic lectures, small-group breakout sessions, and large-group discussion with attendee participation considered crucial for success. The intent is for participants to implement new ideas and concepts into their home training programs. Thus far, 20 meetings have been held for approximately 1000 ophthalmic educators. In 2012, meetings will be occurring in Nanjing, China; Helsinki, Finland; and Portoroz, Slovenia. In conjunction with the International Joint Commission on Allied Health Personnel in Ophthalmology, the ICO also conducted a similar style meeting designed for teachers of ophthalmic allied health personnel in Islamabad, Pakistan.

### World Ophthalmology Educational Colloquium

The WOEC is a series of symposia and keynote talks that are held during each WOC, beginning with the 2008 Congress in Hong Kong. Open to everyone attending the WOC, topics for the 2012 WOEC held in Abu Dhabi, United Arab Emirates, included innovative educational technologies, assessment, e-learning, and subspecialty and allied health teaching. The next WOEC will be held during WOC 2014 in Tokyo, Japan.

### Conferences for Ophthalmic Educators

Inspired by the ICO’s Courses for Residency Program Directors, the Conferences for Ophthalmic Educators are designed to reach not just program directors but also all ophthalmic educators involved in teaching residents, subspecialists, medical students, and allied health personnel, as well as providing a forum for educators of CPD. The conferences, which began in 2011, address topics and problems common to all educators and provide workshops to address educational themes and issues relevant to different learner groups. These 1-day meetings take place immediately before supranational congresses and have been held in Sydney, Australia; Busan, Korea; and Buenos Aires, Argentina. There will be 4 Conferences for Ophthalmic Educators in 2013: Hyderabad, India, on January 16 before the Asia-Pacific Academy of Ophthalmology Congress; Copenhagen, Denmark, on June 7 before the European Society of Ophthalmology Congress; Rio de Janeiro, Brazil, on August 6 before the Pan-American Association of Ophthalmology Congress; and a fourth conference will be held later in the year in conjunction with the Middle East Africa Council of Ophthalmology Congress.

### Ophthalmic Surgical Competency Assessment Rubrics

The ICO has been producing new teaching and assessment tools for surgical procedures, called OSCARs.<sup>3,4</sup> These assessment tools serve 2 purposes: first, they decrease subjectivity of the assessment by clearly defining for the assessor what knowledge and technical expertise must be achieved for each level of proficiency; and second, the rubrics clearly communicate to the learner what is expected to attain competence. Therefore, the ICO-OSCARs can be used for both assessment and teaching. International Council of Ophthalmology OSCARs have been developed for phacoemulsification, extracapsular cataract surgery, small-incision cataract surgery, strabismus surgery, and lateral tarsal strip surgery. International Council of Ophthalmology OSCARs for trabeculectomy, panretinal photocoagulation, vitrectomy, and epiretinal membrane peeling are in progress.

### CURRICULA AND EXPECTATIONS FOR TRAINING PROGRAMS

Standardized curricula are essential for consistent ophthalmic education. In 2006, the ICO developed curricula for Education of the Ophthalmic Specialist,<sup>5</sup> Education of Medical Students,<sup>6</sup> Continuing Medical Education in Ophthalmology,<sup>7</sup> and Paraophthalmic Vision Specialist (Allied Health Personnel) Education.<sup>8</sup> The allied health personnel curriculum was developed in collaboration with the International Joint Commission on Allied Health Personnel in Ophthalmology, as were the International Core Curriculum for Ophthalmic Assistants<sup>9</sup> introduced in 2009 and the International Core Curriculum for Refractive Error<sup>10</sup> added in 2011. These curricula shifted education from an “apprenticeship system” format, where content is contingent on the abilities, preferences, and biases of trainers, to an educational framework, where goals, expectations, knowledge base, competencies, and technical training are carefully defined to initiate the training process. As key curricula and knowledge required to treat diseases may vary within geographic locations, the ICO curricula are intended to be modified to suit local needs and to respond to expanding knowledge and technologies.

Similarly, curricula must change as new knowledge and techniques evolve. The ICO Residency Curriculum was updated in 2011, and 2 new sections were added, Refractive Surgery and Community Eye Health.<sup>11</sup> Although the updated residency curriculum provides a standardized content outline for ophthalmic training, by being delivered online, it becomes a “living document,” a customizable curriculum allowing for adaptation and translatability with the precise local detail for implementation left to each region’s educators. The ICO’s goal is to create a curriculum of enduring value for widely different regions regardless of nationality, culture, or socioeconomic status.<sup>2</sup>

The ICO’s future educational plans include defining curricula for the ophthalmic subspecialties based on international consensus and in conjunction with ICO member international subspecialty societies. The first 4 subspecialty curricula to be developed are glaucoma; oculoplastics and orbit; neuro-ophthalmology; and cornea, external disease, and refractive surgery. Like the updated residency curriculum, the subspecialty curricula will include core content, recommend educational training resources, and specify what the core-learning environment should be for acceptable subspecialty programs worldwide.

### TRAINING TEAMS TO MEET PUBLIC HEALTH CARE NEEDS

In 2010, with the help of ophthalmic societies, the ICO conducted a global survey to determine the current number of

ophthalmologists and to assess the growth rate of the population at the country level.<sup>12</sup> The survey showed that although there are more than 200,000 ophthalmologists worldwide, there is a serious shortfall of ophthalmologists, as the aging population is growing faster than the number of ophthalmologists. To bridge this widening gap between supply and demand, efficiency of care must increase. Training of ophthalmologist-led eye care teams consisting of nurses, technicians, optometrists, and other personnel according to the needs of the country would likely serve to achieve this end. According to the Lancet Global Commission, we should be striving for “promotion of interprofessional and transprofessional education that breaks down professional silos while enhancing collaborative and nonhierarchical relationships in effective teams.”<sup>13</sup>

The ICO has begun work on defining models of team training and compiling best practices from around the world. Guidelines with specific roles of team members will be produced with the expectation that they will facilitate not only team training but creation of job descriptions for allied health personnel in countries where no such descriptions exist. Measures of success will include adoption of team-training principles and acceptance of the various allied health roles.

### ACCREDITATION AND CERTIFICATION

Another conclusion of the Lancet Global Independent Commission was that accreditation is central to the professional education institutions linking their instructional activities to their societal purpose.<sup>13</sup> The Carnegie Foundation also supports the development of program accreditation and says, “Accreditation systems should develop criteria for assessment, define metrics of output, and shape the competencies of graduates to meet societal needs.”<sup>14</sup> The ICO believes that accreditation of training programs would result in overall improvement in the education of ophthalmologists and is looking at the process of program accreditation and exactly how the ICO might play a role. The ICO aims to facilitate mechanisms to help countries establish accreditation and individual certification systems, so that, ultimately, all programs and individuals will be certified and accredited.

Currently, the ICO examinations provide one method of individual certification. The examinations promote the excellence of eye care worldwide by encouraging individuals to acquire and maintain the highest standard of practice of ophthalmology and are the only worldwide medical-specialty examinations. Since their inception in 1994, more than 19,000 ophthalmologists from 70 countries in 130 examination centers have taken the examinations. Supported by their local institutions, the ICO examinations also advise on reading lists, Web sites, and current information to aid revision.

### CONTINUING PROFESSIONAL DEVELOPMENT

Education must not end with graduation from a training program. Opportunities for high-quality CPD must be available. The ICO is working with ophthalmologic societies to provide continuing education that is relevant to their members and to societal needs. The ICO will be evaluating the educational materials available from ophthalmologic societies and providing a platform for teachers, individual ophthalmologists, and allied health personnel to find and access materials most relevant to them. To enable the WOC to be a model for application of modern educational methods for CPD, content from the Congress will be available online. The ICO advocates easily available access to CPD for all.

### INFORMATION AND COMMUNICATION TECHNOLOGIES FOR TEACHING AND LEARNING

The explosive growth of information and communication technologies has greatly benefited teaching and learning by helping to reduce educational issues related to time, cost, physical space, and geographic location. At the same time, the overload of data and information on the Internet makes it difficult to find quality materials or to evaluate the quality of the information found. To address these points the ICO has developed several sophisticated teaching tools and resources.

1. The ICO Center for Ophthalmic Educators ([educators.icoph.org](http://educators.icoph.org)) offers a broad array of educational tools for educators of residents, medical students, subspecialty fellows, practicing ophthalmologists, and allied eye care personnel. In addition to providing valuable instructive resources, the center enables connecting with others to share ideas as well as collaboration with peers and other ophthalmic educators.

Institutions and individuals interested in ophthalmic education have developed many of the valuable resources used at the center by acting as “Web hunters” and “content creators.” All resources available at the center have been both vetted and recommended by the center’s Editorial Board.

The Center for Ophthalmic Educator’s monthly newsletter, *Ophthalmic Educators Letter*, includes news and announcements about recently added and updated resources in the center. Educators can sign up to receive the e-newsletter by opening a free account at [https://icoph.org/create\\_account.html](https://icoph.org/create_account.html) or by emailing [educators@icoph.org](mailto:educators@icoph.org).

2. The ICO’s Web-Based Teaching Course is a 6-week online class, first launched in May 2012. The function of the course is to help ophthalmic educators enter into a Web-based teaching setting to augment educational opportunities.
3. The Webinar Network is a new ICO collaborative project with supranational and national organizations. A tool for sharing online residency-training activities, the Webinar Network is a clearinghouse for online synchronous learning activities of interest to in-training and practicing ophthalmologists as well as a resource to ensure quality compliance with continuing medical education guidelines.
4. The ICO’s Technology for Teaching and Learning blog ([www.icotechnology.blogspot.com](http://www.icotechnology.blogspot.com)) is intended to keep educators current on new technologies and their application to teaching and learning.

### SUMMARY

As a global organization with a regional focus, the ICO possesses a unique perspective on ophthalmic education. Working to build a “World Alliance for Sight” with its global partners and through development of exciting educational initiatives and sophisticated educational tools and resources, the ICO’s commitment steadfastly remains to improve ophthalmic education in all regions, thus improving access to the highest-quality eye care worldwide.

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*"The most pathetic person in the world is someone who has sight but has no vision."*

**Helen Keller**

