



Executive Report
**International Centre
for Eye Health**
Key Activities 2010–2014



LONDON
SCHOOL of
HYGIENE
& TROPICAL
MEDICINE



London School of Hygiene & Tropical Medicine London
December 2014

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Mission Statement

Research and Education to improve eye health and eliminate avoidable blindness and visual impairment, with a focus on low-income populations.

Core Values

- Excellence in our work
- Respect in our relationships
- Clarity and openness in our communications

Objectives

- 1** To **provide evidence** of the magnitude, causes and impact of visual loss and eye diseases for policy makers and health planners.
- 2** To **undertake research and systematic reviews** to identify cost effective interventions for the prevention and treatment of blinding eye diseases.
- 3** To promote **international and national level leadership** in community eye health through training at LSHTM.
- 4** To facilitate implementation of national and **district VISION 2020 programmes through the provision of local training** in community eye health, planning and management.
- 5** To work with **partners** to increase the capacity of institutions to develop research programmes and to provide high quality training in eye care delivery.
- 6** To support local health providers with relevant **eye care educational materials** and information on good practice.
- 7** To contribute towards the Global VISION 2020 initiative and Global Action Plan 2014–2019 **in collaboration with WHO, the IAPB, International NGOs** and other institutions and organisations.



Audience: WHO – PBL, IAPB, International Non-Government Organisations, programme planners and managers, eye health professionals and researchers

Evidence, Policy, Planning, Good Practice, Training, Education, Advice

Reduction in Avoidable Blindness & Visual Impairment

Research and Evidence for Policy and Practice: Activities 2010-14

Surveys and RAAB methodology

A national survey of visual impairment and blindness has been completed in Sri Lanka, in collaboration with the Ministry of Health and Sightsavers. The data are being analysed and the results will be available in 2015 to assist the Ministry of Health with priority setting and planning services.

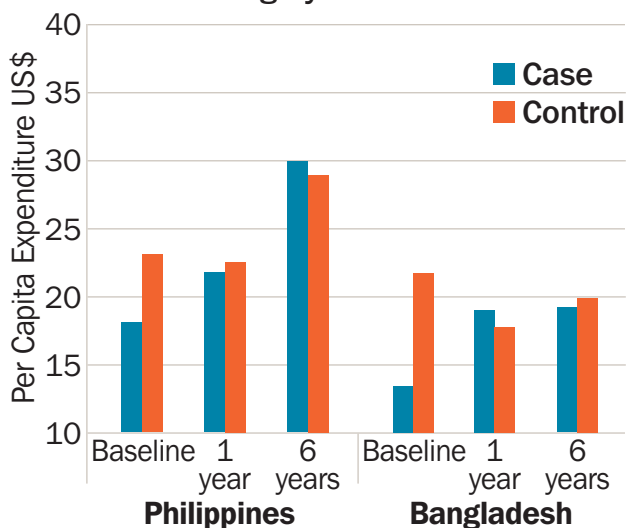
ICEH continues to lead and coordinate the development and use of the RAAB methodology. We have developed a module to assess diabetic retinopathy as part of RAAB, which has been tested in Mexico, South Africa and Saudi Arabia. We are also developing new mobile tools for data collection, so that the Peek tool can be used for visual acuity assessment and eye examination.

Cataract

The Cataract Impact Study in Kenya, the Philippines and Bangladesh demonstrated that cataract surgery improves:

- quality of life
- time on productive activity
- household economy

Figure 1: Change in household expenditure after cataract surgery



We conducted the six-year follow-up during 2012 which showed that these benefits were sustained over the long-term.

ICEH has led two large studies that have assessed ways to improve the quality of cataract surgery in low and middle income settings. This followed from the results of RAAB surveys in many countries that revealed poor outcome following cataract surgery was common.

The first study, funded by the BUPA Foundation, provided two hospitals in India and Cameroon with the capacity to collect and review their own data on quality (capturing information on clinical effectiveness, patient safety and patient experience) and the impact was assessed using qualitative and quantitative study techniques. The outcome of the study suggested that monitoring alone did not lead to widespread improvement in quality and that hospitals required further support to make necessary changes.

Following on from this, the second study, funded by DFID, assessed the impact of mentorship on the quality of cataract surgery in two hospitals in Uganda using a similar approach to the first study. The study in Uganda found that mentorship aided improvement but that again it needed to be part of a wider approach that hospitals in these settings should take to improve quality.

Papers from both studies have either been published or are in the process of being published. It is planned that ICEH will continue work on quality improvement of cataract surgery in another hospital in Cameroon in 2015.

Ocular Infections

Trachoma

In Ethiopia, we have conducted two large randomised control trials (each of 1300 participants). First, we tested the hypothesis that long-lasting absorbable sutures (vicryl) could improve the outcome of trichiasis surgery. We found that they were equivalent, but using vicryl has significant operational advantages. This is now being adopted by multiple countries and forms the evidence base for a major new international donation programme from the manufacturer of absorbable sutures.

Second, we investigated whether epilation (plucking out lashes) was non-inferior to surgery for managing mild trichiasis; although the result was “inconclusive” relative to a 10% non-inferiority margin, visual acuity and corneal disease outcomes were comparable, leading to the conclusion that epilation can be used where surgery is not available or acceptable. This is now being adopted by several national trachoma control programmes.

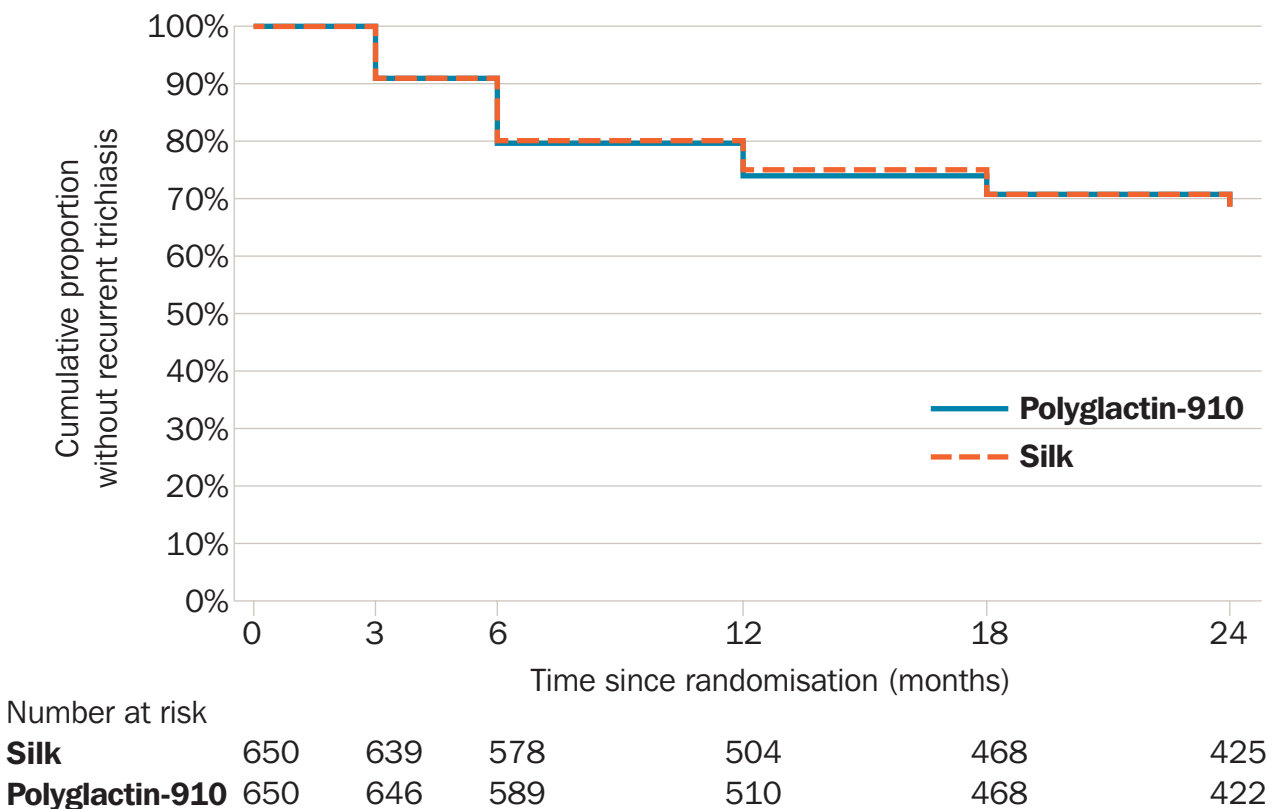
In Tanzania, we have an ongoing series of studies looking at how the infection chlamydia trachomatis causes scarring. This has led to a clearer understanding of the disease processes and led to the observation that scarring can progress even when the infection is controlled, which has implications for how long the programmes will need to continue.

Corneal Infection

Corneal infection, particularly ulceration by fungi, is a major public health problem in tropical regions, where fungi are common in the environment due to high temperatures and humidity.

In a collaboration with Aravind Eye Hospital, we are investigating the immunopathophysiology of corneal damage during severe corneal ulceration, which will hopefully help us identify therapeutic targets. We are also investigating the utility of *in vivo* confocal microscopy in guiding the management of fungal corneal ulceration.

Figure 2: Kaplan Meier graph showing the time to the development of recurrent trichiasis. Absorbable sutures were as good as the standard silk suture.



Childhood Eye Disease and Blindness

In many developing countries children become or remain blind because of lack of eye care at the primary level of service delivery.

A recent pilot study in Tanzania has demonstrated that training staff in Reproductive and Child Health services in Dar es Salaam can lead to increased knowledge and positive change in practices. The formative phase of research for a larger study has recently been completed in central Tanzania and the findings are being used to plan a package of interventions for staff who provide primary level services for young children.

A recent systematic review of the literature shows that the incidence of visual loss from retinopathy of prematurity (ROP) in Asia and other middle income countries is far higher than earlier estimates. This is occurring

because services for preterm infants are expanding, leading to greater survival of those most at risk.

The Queen Elizabeth Diamond Jubilee Trust is supporting a national programme for ROP in India, where blindness from ROP is increasing.

A National Task Force has been established by the Ministry of Health, so that control is included in the Government of India's policies and guidelines.

This is a five year programme and it is anticipated that learning from India will help to inform control measures in other Commonwealth countries.

Staff at ICEH have also helped facilitate planning workshops for neonatologists, neonatal nurses and ophthalmologists in many Latin American countries, Eastern European countries and in Russia.

We have also assessed the prevalence and causes of childhood blindness in



Low birthweight baby at risk of ROP

Bangladesh, Pakistan and Malawi. These studies showed that 0.7 per 1000 children (95% CI, 0.6-0.8) had moderate/severe visual impairment in Malawi and Bangladesh, while in Pakistan this estimate was lower at 0.2 per 1000 children (0.2-0.3).

Glaucoma in Africa

Glaucoma, which causes progressive, painless, irreversible visual loss is an important cause of blindness worldwide. In Africa, control is particularly challenging, as there is lack of awareness of the condition in the community, and people often present to eye care services very late, once they are already blind in one or both eyes. Acceptance of surgery is also low, as it does not restore sight like cataract surgery.

Analysis of data from the large national survey of blindness in Nigeria (2004-2007) showed that approximately 5% of adults aged 40 years and above have glaucoma.

Data from an eye clinic in Bauchi, northern Nigeria, showed that three quarters of new glaucoma patients were already blind in one or both eyes at presentation. Among these patients, 85 were offered surgery, but only seven agreed and only one actually returned for the operation.

Another study in southern Nigeria, undertaken by a Masters student, showed that almost three quarters of patients with glaucoma attending a tertiary level facility either failed to attend for follow up, or had very low rates of attendance. The cost of care was a major barrier as was the time spent to travel and attend the clinic.

In order to improve acceptance of treatment, staff at ICEH are conducting two clinical trials.

The first trial in Nigeria, is to evaluate a form of counseling, known as motivational interviewing, to assess whether this will

improve uptake of laser or surgery for advanced glaucoma.

The second trial, which is in Tanzania, is to compare the effectiveness of medication with eye drops with one time laser treatment, which can be done as an outpatient procedure.

Other Eye Conditions

Diabetic Retinopathy

A study conducted in India demonstrated that routine screening for diabetic retinopathy was highly cost-effective, particularly if the screening interval was less than annual, and an evaluation of diabetic retinopathy programmes in Africa identified the stages in developing a programme and key facilitating factors.

Staff at ICEH are also playing a key role in designing and managing a large scale, national programme for the control of visual loss from diabetic retinopathy in India, supported by The Queen Elizabeth Diamond Jubilee Trust. The programme is being guided by a National Task Force, established by the Ministry of Health.

Ocular Surface Squamous Neoplasia (OSSN)

OSSN, an aggressive tumour that develops on the surface of the eye, is particularly prevalent in East Africa. In collaboration with the University of Nairobi we are investigating risk factors associated with the disease in a case control study, the role of mutations in stem cells and whether post-operative 5FU eye drops reduces recurrence rates in a clinical trial.

Cochrane Eyes and Vision Group

The Cochrane Eyes and Vision Group (CEVG) produces systematic reviews looking at interventions for specific eye conditions. The Group has two Satellite Branches; one at Johns Hopkins University, Baltimore to

support US based review authors and the other at the University of Florence supporting diagnostic test accuracy (DTA) reviews.

From 2010–2014, the CEVG has published 85 new protocols, 60 new reviews and 79 updates of published reviews in many areas of ophthalmology including glaucoma, age-related macular degeneration (AMD), cataract, trachoma, strabismus, amblyopia, thyroid eye disease and refractive errors. Details of these reviews can be found at <http://eyes.cochrane.org/our-reviews>.

Two reviews that have been of particular interest have assessed treatment of AMD. The first concluded that three anti-VEGF agents were effective at maintaining visual acuity. The second review compared the safety of two anti-VEGFs, and found that bevacizumab (a less expensive but unlicensed drug for AMD) did not appear to increase serious side effects or deaths compared to ranibizumab (a licensed drug for AMD).

The CEVG in conjunction with the UK charity Fight for Sight has worked with the James Lind Alliance (JLA) in completing a Priority Setting Project (PSP) for sight and vision loss. Working with various stakeholders including patients, carers and eye health professionals, a top 10 list of priority questions was produced. The CEVG will use the results as guidance for deciding what the research priorities are in the field of ophthalmology. The full report is available at www.sightlosspsp.org.uk.

Eye Health Systems Assessment

Following the success of the Health Systems Assessment (HSA) approach, a consortium of eye care experts and health experts, coordinated by ICEH, developed the Eye Health Systems Assessment (EHSA) approach as a complement to the HSA.

Over the last few years, increasing efforts have been invested in exploring the relationship between the eye health system and the general health system. A consensus is emerging in the international eye care community that the effectiveness of eye care interventions can only be improved through better understanding of how health systems function.

In parallel with the HSA approach, the EHSA approach is designed to provide a rapid and yet comprehensive assessment of the key health systems functions and their interactions, as relating to the eye care system: governance; financing; service delivery; human resources; medical products, vaccines and technologies; and information systems.

The **EHSA How-To Manual** focuses on a list of selected indicators or questions used to measure the performance of the eye health system.

As of December 2014 EHSA has been used in Ghana, Mozambique, Sierra Leone in Africa; Cambodia, Laos, Iran in Asia; and Guyana in South America.

Mapping of Human Resources for Eye Health

Development of human resources for eye health (HReH) is a major challenge and is a key component of the Global Action Plan. The eye health workforce in sub-Saharan Africa is much smaller than in other regions. Information is scarce and is needed for policy-making.

In 2011 the International Centre for Eye Health (ICEH) and the Africa Vision Research Institute (AVRI) collected HReH data from 21 countries of sub-Saharan Africa to estimate progress towards VISION 2020 HReH indicators and cataract surgery rates (CSR), and to make projections about the workforce requirements in 2020.

Figure 3: Country Profile for Ghana 2011

Key messages

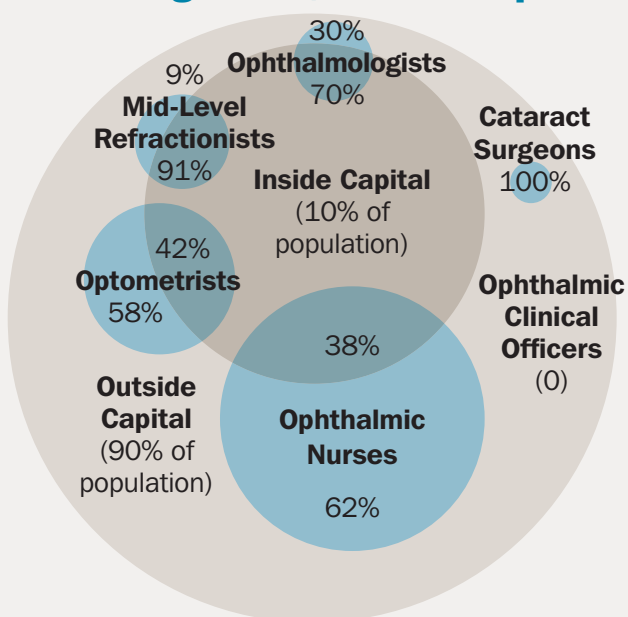
- **Surgeons:** Ghana is more than halfway to meeting the V2020 target and will need to recruit 66 surgeons to meet this target.
- **OCOs/Nurses:** Ghana has already exceeded this V2020 target, due entirely to the presence of ophthalmic nurses.
- **Refractionists:** Ghana is a third of the way to meeting this target. The current growth rate of optometrists looks promising, lack of data on mid-level refractionists means that it is not clear whether this target will be met by 2020.
- **Cataract Surgeries:** Ghana is a third of the way to meeting this target. An additional 13,000 surgeries, representing a 70% increase, need to be carried out annually in order to meet this target by 2020.

VISION 2020 Targets					
	Eye Care Practitioners per Million Population			Cataract Surgeries Performed per Million Population	Cataract Surgeries Performed per Surgeon
	Surgeons*	Ophthalmic Clinical Officers/Nurses	Refractionists		
V2020 target	4	10	20	2,000	500
2011 Situation	2.2	13.7	6.6	738	335
On Track					



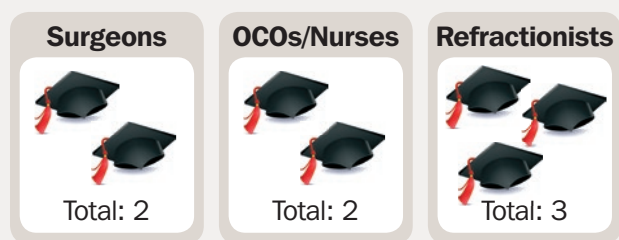
*For the Africa region this includes Ophthalmologists and Cataract Surgeons

Eye Care Practitioners: % Working Inside/Outside capital

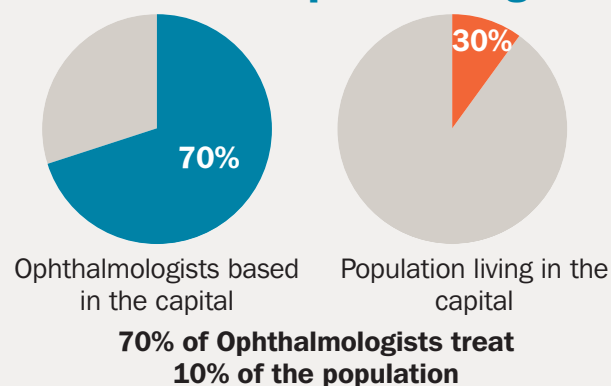


Note: Circles are proportional to numbers of eye care practitioners

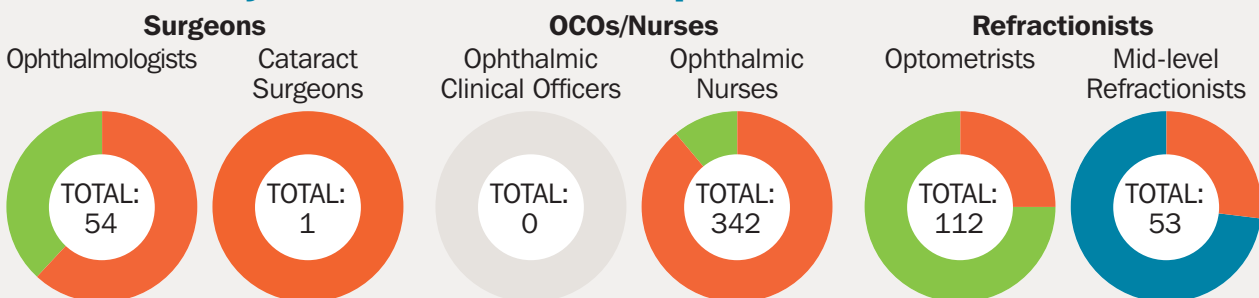
In-Country Training Programmes



Distribution of Ophthalmologists



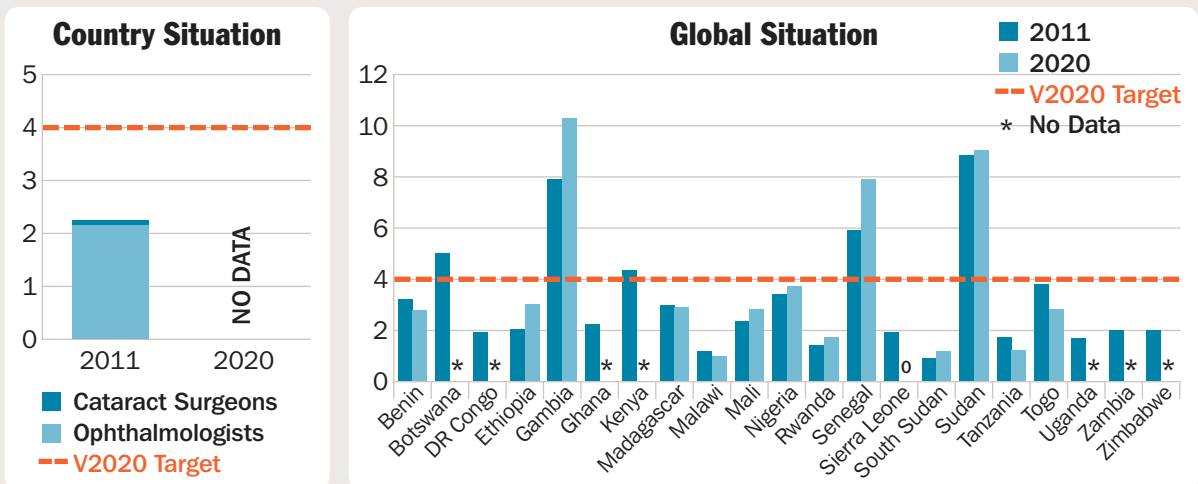
Eye Care Practitioners: Split between Sectors



Legend: Government (Orange), NGO/Mission (Green), Private for Profit (Blue). Note: Data does not include private sector for all but mid-level refractionists

Figure 4: Human Resources and Projection to 2020 for 21 African Countries

Surgeons: Current & Projected Workforce per million population

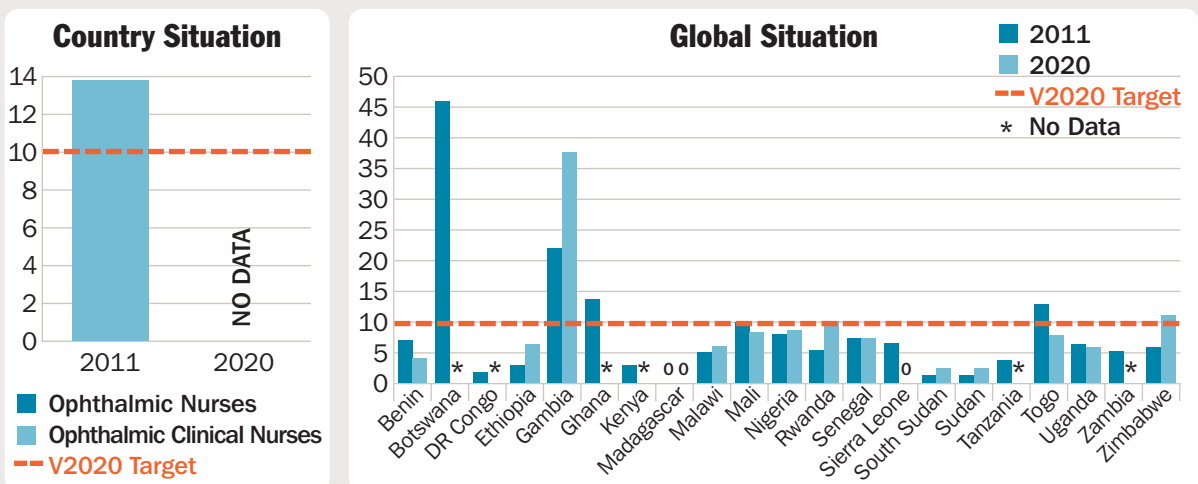


Practitioner Entry v Exit: Over the past 3 years, 3 ophthalmologists and no cataract surgeons have entered the workforce. However, there is no information on how many have exited the workforce, so projections for the situation in 2020 cannot be made.

Practitioner Working Location: The overall practitioners population ratio of 2.2 becomes 14.8 for those working in the capital compared with 0.8 for those working outside of the capital.

Practitioner v Population Growth: The surgeon population will need to more than double to meet the V2020 target by 2020, taking into account the expected 22% population increase over the period.

OCOs/Nurses: Current & Projected Workforce per million population

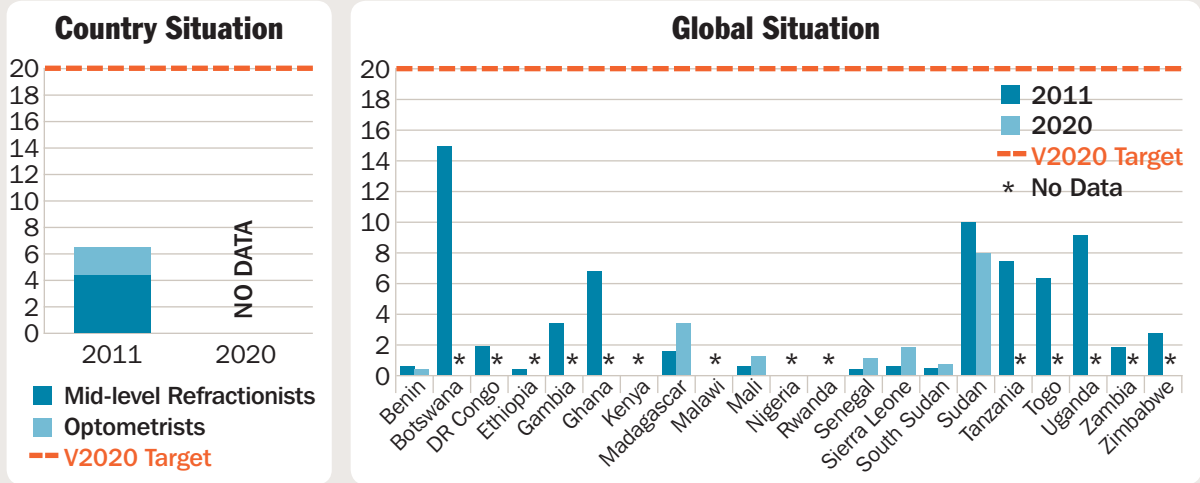


Practitioner Entry v Exit: Over the past 3 years, 90 ophthalmic nurses have entered the workforce. However, there is no information on how many have exited the workforce, so projections for the situation in 2020 cannot be made.

Practitioner Working Location: With a ratio of 13.7, Ghana currently exceeds the V2020 target for practitioner to population ratio. The ratio for those working in the capital is 50.5 and 9.5 for those working outside the capital.

Practitioner v Population Growth: So long as no ophthalmic nurses exit the workforce, Ghana is set to meet this target by 2020.

Refractionists: Current & Projected Workforce per million population

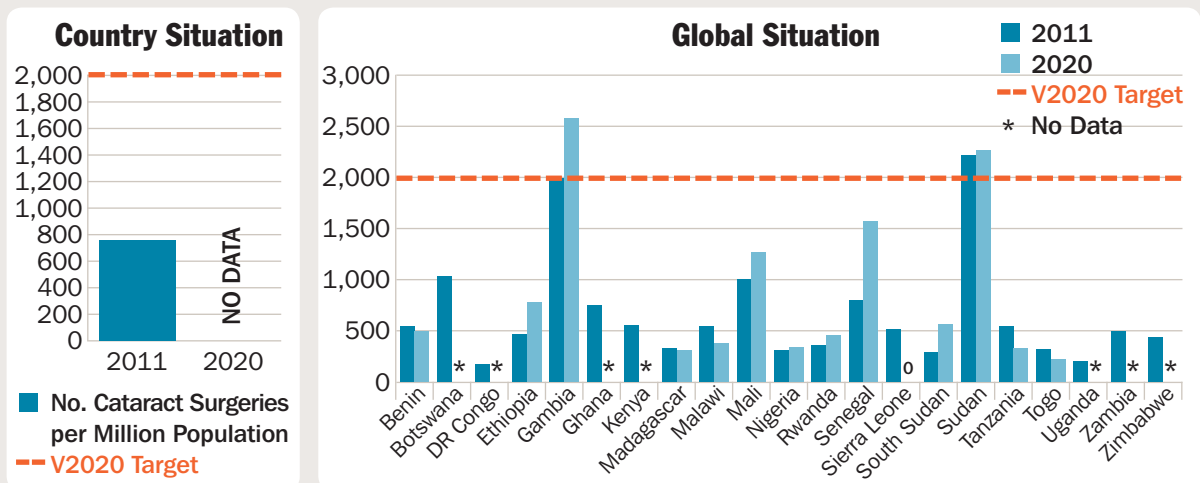


Practitioner Entry v Exit: Nearly 50 optometrists join the workforce each year and only 2 have left over the past 3 years. However, there is no information on mid-level refractionists.

Practitioner Working Location: The refractionist to population is 6.6 for the overall population and 36.9 and 3.1 respectively for those working inside and outside of the capital.

Practitioner v Population Growth: Projected growth data is only available for optometrists, not mid-level refractionists. Nearly 50 optometrists join the workforce each year, meaning the mid-level refractionist population will need to increase 7-fold to meet the target by 2020.

Cataract Surgical Performance: Current and Projected Performance per million population



Ghana will need to perform more than three times as many annual cataract surgeries by 2020 in order to meet the V2020 target, taking into account expected population growth.



Peek

Peek – the portable eye examination kit – is a multifunctional, smartphone-based tool which empowers eye health workers to examine and diagnose eye diseases in the remotest of settings.

Using Peek on a smartphone, visual acuity, lens imaging and high-quality retinal images are taken, which can then be sent with a GPS reference to the patient's nearest ophthalmic practice, where treatment is arranged.

Several applications have been developed and tested in a large population-based study in Kenya (data to be published in 2015). Further studies are ongoing in Kenya, Tanzania, Mali, Malawi, India, Botswana and the UK.

In November 2014 a crowdfunding campaign was launched on indiegogo.com to fund the development and manufacture of the Peek Retina adaptor.

www.supportpeek.com



Peek was developed through a collaboration between the ICEH, LSHTM, the University of Strathclyde and the NHS Glasgow Centre for Ophthalmic Research.

Peek has been awarded many prizes since its development, most notably €100,000 in the Mazda Rebels with a Cause competition in partnership with TED, and \$100,000 in the Gifted Citizens Awards at La Ciudad de las Ideas in Puebla, Mexico.

PhD students 2010 and 2014

PhD Topic	Name	Country of study	Status
Blindness in children in Bangladesh	Mohammad Muhit	Bangladesh	Completed
HIV and eye disease	Sophia Pathai	South Africa	Completed
Low vision in children in South-East Asia	Karin van Dijk	India, Indonesia	Completed
Clinical Features and Management of Trachomatous Trichiasis	Saul Rajak	Ethiopia	Completed
Studies on the Pathogenesis of Trachomatous Scarring	Victor Hu	Tanzania	Completed
Prevalence of posterior segment eye disease	Wanjiku Mathenge	Kenya	Completed
Diabetic Retinopathy	Khairol Sabtu (DrPH)	Brunei	In progress
Glaucoma: prevalence and risk factors	Fatima Kyari	Nigeria	In progress
Motivational interviewing to improve uptake of treatment in glaucoma patients	Mohammed Abdull	Nigeria	In progress
RCT to improve uptake of referrals for children with eye conditions.	Prateek Gupta	Indonesia	In progress
Trained key informants versus health assistants in finding blind children	Kalua Khombo	Malawi	In progress
Squamous cell carcinoma of the conjunctiva	Stephen Gichui	Kenya	In progress
Bilamellar versus Posterior Lamellar Tarsal Rotation for Trachomatous Trichiasis: A Randomised Controlled Trial	Esmael Habtanu	Ethiopia	In progress
Studies of IL17 in the development of scarring trachoma	Athumanoi Ramathani	Tanzania	In progress
Diagnosis and Pathophysiology of Corneal Necrosis in Severe Microbial Keratitis	Jaya Chidambaran	India	In progress
Incidence and Progression of Posterior Segment Eye Disease	Andrew Bastawrous	Kenya	In progress
RCT of laser versus medication for glaucoma	Heiko Philippin	Tanzania	In progress
Smartphone technology (Peek) for the examination and diagnosis of eye disease Kenya	Hilary Rono	Kenya	In progress

Teaching, Education and Communication: Activities 2010–2014

Masters in Public Health for Eye Care

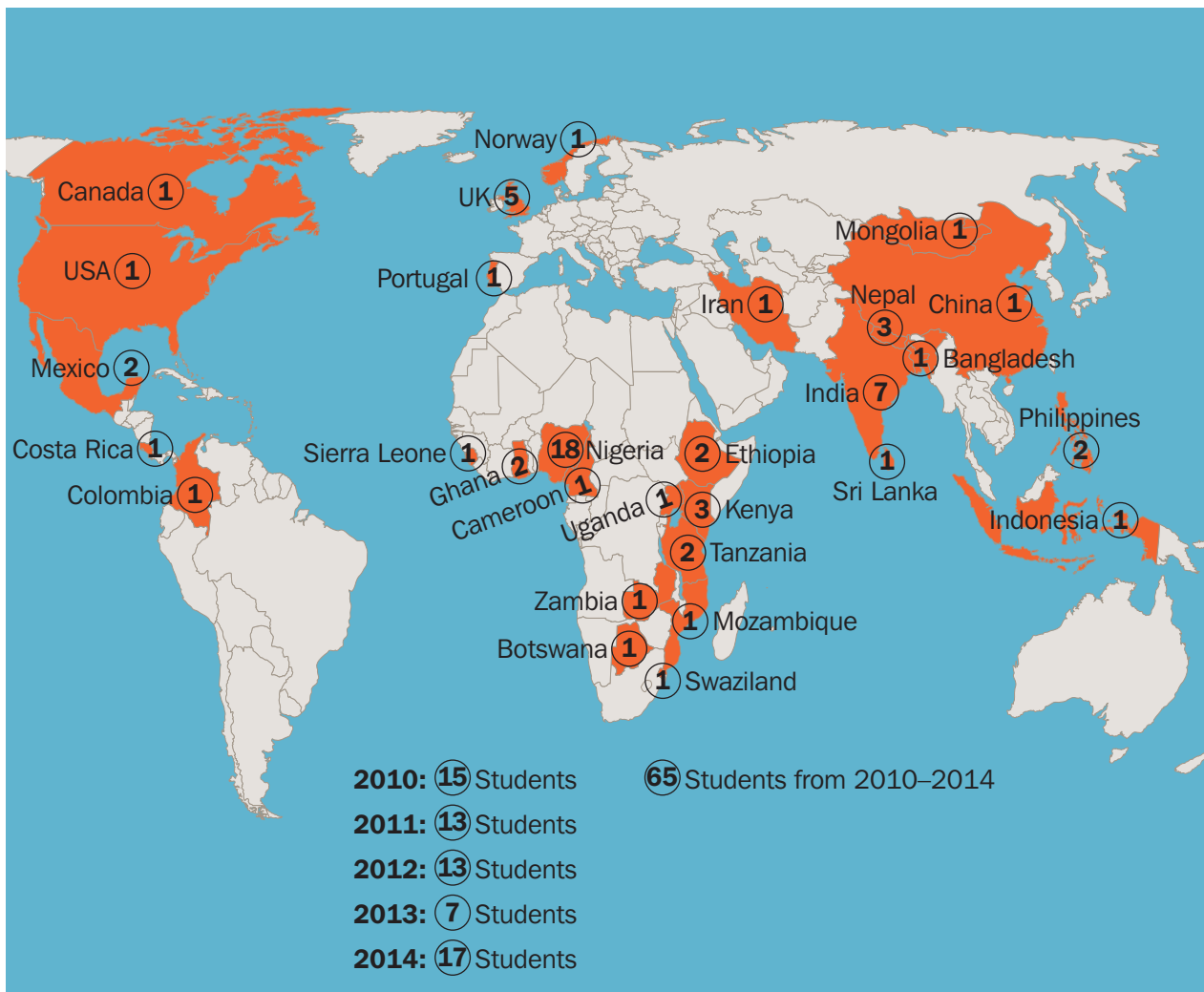
Our Masters course provides training for future leaders in prevention of blindness from all over the world. The public health training enables them to understand and influence the strategies to prevent and treat blindness and visual impairment in their countries, be it through roles in

teaching, research, policy making or project management.

From **2010 to 2014 ICEH has provided training for 65 eye care professionals**, most of them from low- and middle-income countries.

The map below shows the number and origin of ICEH Alumni from 2010–2014.

Figure 5: MSc Public Health for Eye Care – Alumni from 2010–2014



Examples of the Work of Alumni

Name	Role
University and Academic Appointments	
Oathokwa Nkomazana	Dean Medical School, Botswana
Affiong Ibanga	Senior Lecturer and Consultant Ophthalmologist, University of Calabar Teaching Hospital, Nigeria
Marzieh Katibeh	Assistant Professor of Community Medicine, Shahid Beheshti University of Medical Sciences, Iran (WHO Collaborating Centre)
Michael Ntodie	Optometrist and Assistant Lecturer, University of Cape Coast, Ghana
Pradeep Bastola	Associate Professor in Ophthalmology, Nepalgunj Medical College, Nepal
Milka Mafwiri	Acting Dean, Muhimbili University Hospital and Allied Sciences, Tanzania
Himal Kandel	PhD (Medicine – Public Health) Student, Flinders University, Australia
International NGOs/IAPB	
Xiao Baixiang	Advisor, Fred Hollows Foundation, China
Alemayehu Tefera	Programme Development Advisor on Eye Care, Sightsavers, East Africa
Joseph Oye	Country Director, Sightsavers, Cameroon
Chunhong Guan	Programme Manager, China , Orbis
Himal Kandel	Lecturer, Brien Holden Vision Institute/MMUST, Kenya
Babar Qureshi	CBM Medical director, Co-Chair of Programmes in EMR
Amir Bedri	Co-Chair for IAPB East Africa
Maria Hagan	Co-Chair for IAPB West Africa
Mansur Rabiou	Director of Programmes, Eastern Mediterranean
WHO/Government and Policy	
Oscar Debrah	National Eye care Coordinator, Ghana
Michael Gichangi	Head of Ophthalmic Services Unit, Kenya National Government.
Taiwo Oyeleye	Director, Medical Administration, Training and Programmes at the Lagos State Ministry of Health, Nigeria

ICEH identifies and manages scholarships for applicants from LMIC, facilitating funding for about 12 students per year. Our co-funding partners during this period include:

- | | |
|--------------------------|------------------------|
| DIFID | Sear Family Foundation |
| International Student Hs | Hooper Prize |
| BCPB | Kirkpatrick |
| CBM | Alan & Nesta Ferguson |
| SSI | LSHTM |
| Task Force Sight & Life | University of Benin |
| Fred Hollows Foundation | Kano State Government |
| Dutch Lions | Chevening |
| Commonwealth EHC | Joint Japan/World Bank |

Short Courses and VISION 2020 Workshops

Short Courses at LSHTM

ICEH runs short courses usually lasting five days at LSHTM on:

- Tropical Ophthalmology
- Planning for VISION 2020
- Understanding Eye Health Systems to Achieve VISION 2020



A total of 135 students have attended ten courses over the five year period.

Course participants include programme planners and managers, clinicians and those involved in the VISION 2020 Links Programme.

VISION 2020 Workshops 2010–2014

ICEH organises and manages the VISION 2020 workshops for IAPB and its members.

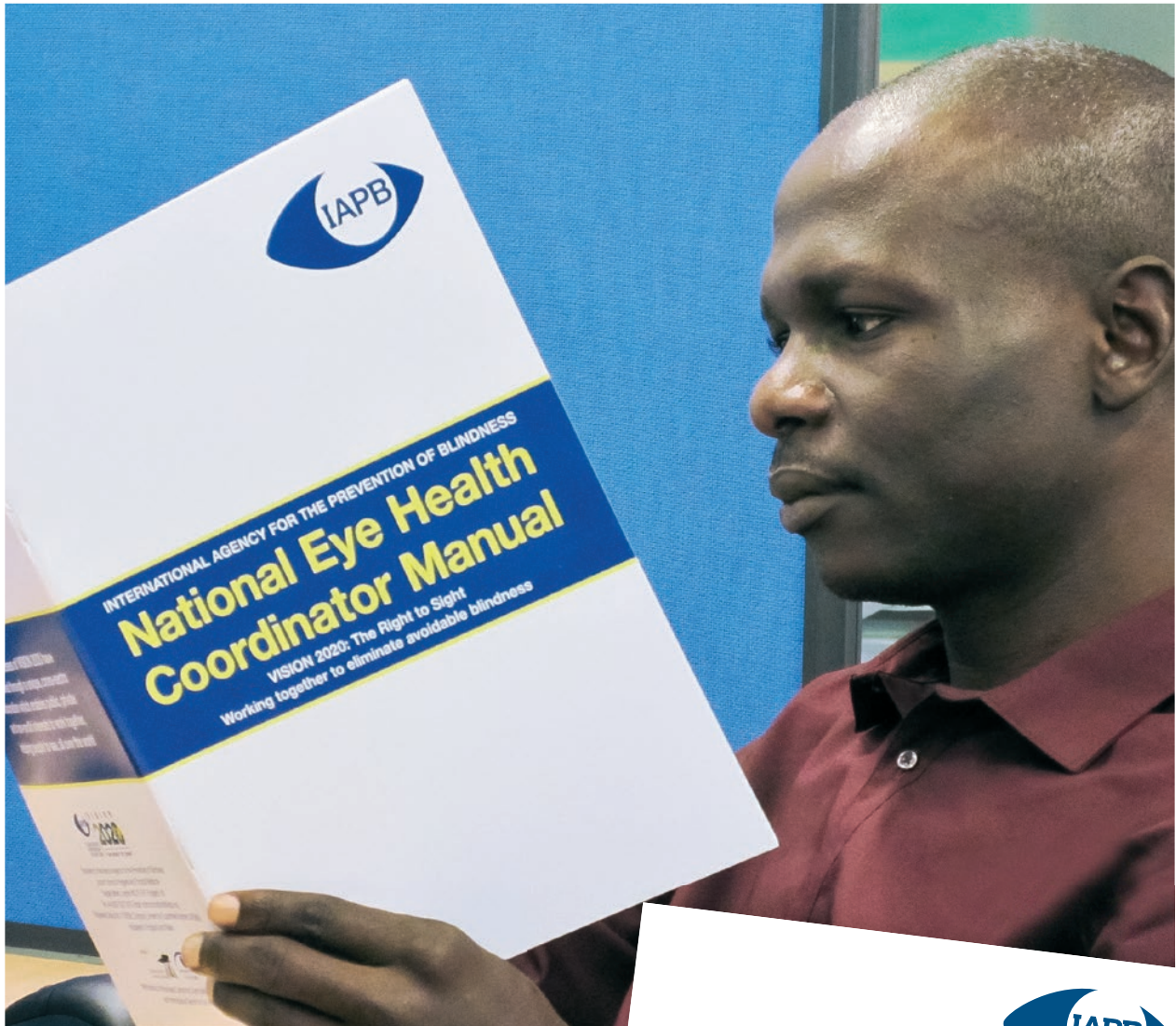
These workshops support national governments to develop eye health plans, policies and programmes.

The workshops have been instrumental in rolling out the VISION 2020 programme, control of specific eye diseases such as ROP, and now the new WHO Global Action Plan.

Year	Workshops	Participants
2010	25	549
2011	28	951
2012	24	1,087
2013	11	550
2014	18	825
Total 2010-2014	106	3,692



IAPB/WHO AFRO workshop, Brazzaville, December 2013



Manuals

During this period two manuals were developed from the V2020 workshops:

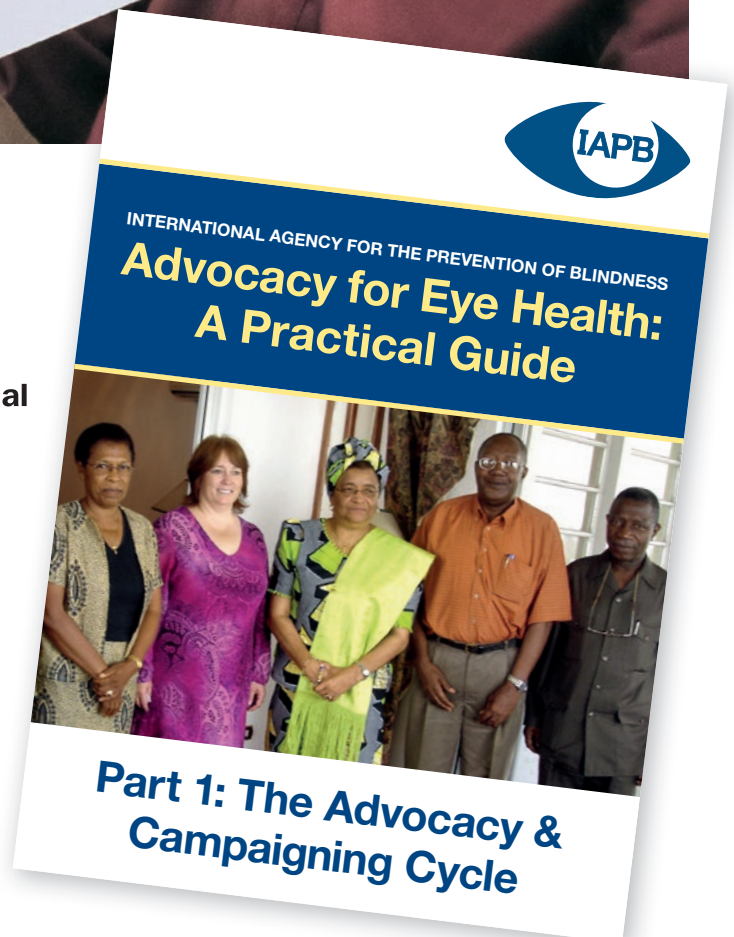
National Eye Health Coordinator Manual

This manual was produced using the materials developed for the capacity building workshop for NECs.

The Advocacy Guide and Tool kit

This provides a hands-on guide to explain best practice advocacy techniques.

It also offers tools and case studies of successful advocacy in practice.





Community Eye Health Journal

Since the late 1980s ICEH has produced the *Community Eye Health Journal* sent four times per year free of charge to eye care workers in LMIC.

Distribution

Paper copies are sent to readers in over 180 countries, and each year we distribute approx. 35,000-37,000 print copies:

Edition	Distribution	Frequency
English	22,200	4 issues/year
French	4,335	1 issue/year
Chinese	6,000	2 issues/year
Spanish	4,500	2 issues/year

There is also a rapidly expanding email list of recipients, approx. 5,000.

Readership

The readership includes ophthalmologists, optometrists, ophthalmic nurses, ophthalmic clinical officers, general doctors and nurses, and community health workers.

Content

The themes, articles and authors are decided by an international editorial board, many of whom are ICEH Alumni.

The topics covered in 2014 include:

- 1 Improving cataract services
- 2 The eye care team
- 3 What's new at the back of the eye?
- 4 Persuading patients and communities to improve their eye health

Each year we compile all the issues on a CD with all the back issues and send the CDs to all our readers with the 4th issue of the year. All issues of the Journal are available at: www.cehjournal.org

Reader Feedback

A recent Readership Survey showed that the Journal is used for improving service delivery, teaching, patient education, counseling patients and their families, and raising awareness about eye health.

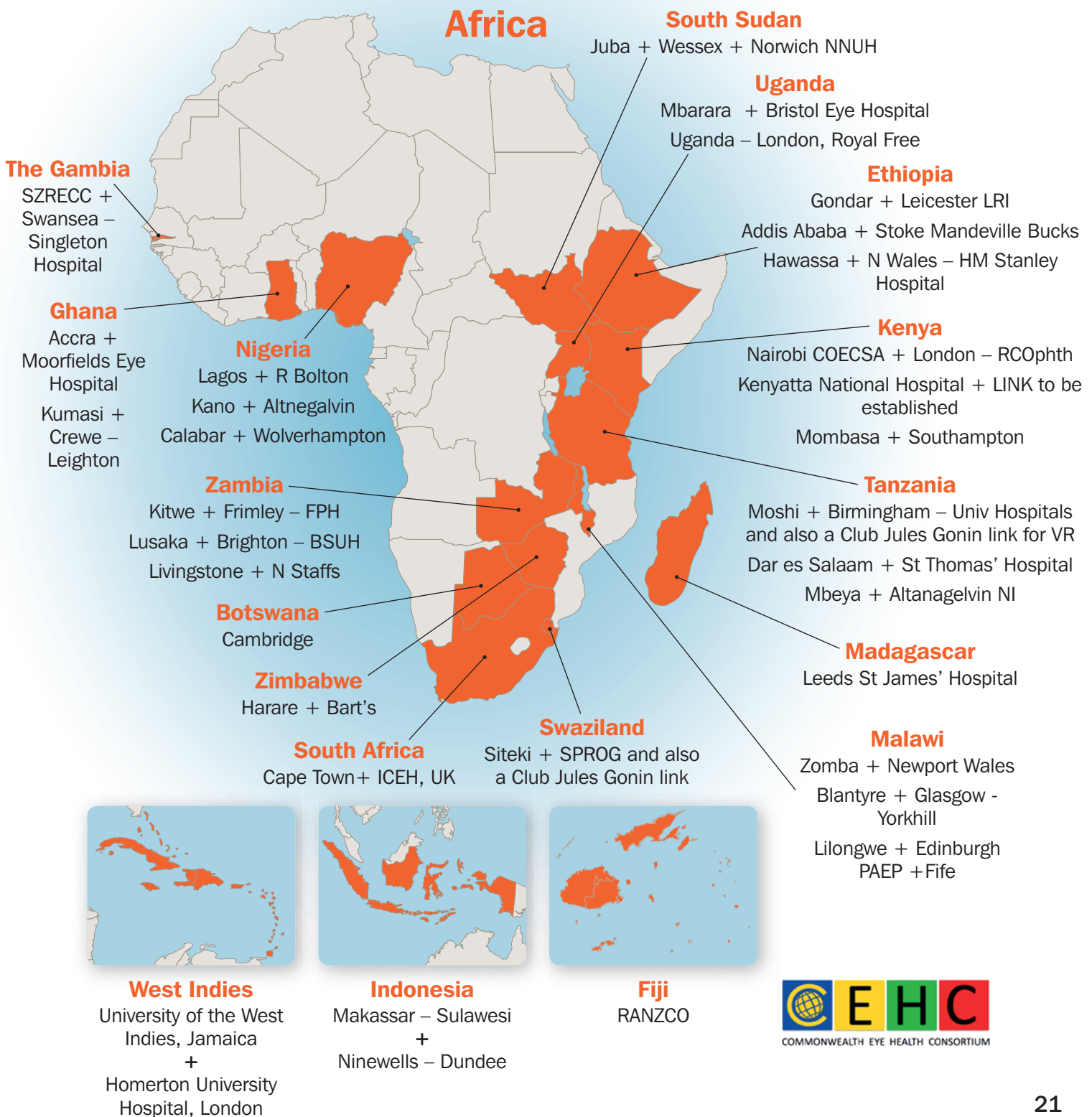
VISION 2020 LINKS Programme

In 2004 the VISION 2020 LINKS Programme was launched at ICEH to increase the quality and quantity of eye care training and provision of services in Africa, to help address the huge shortage of eye care personnel.

In a LINK, an African eye department is matched with a UK eye department in a formal long-term institution-institution partnership. The aim is to build capacity to deliver better quality eye care to patients.

Over the last 10 years 32 LINKS have been established as shown in the graphic below.

Figure 6: VISION 2020 LINKS partners in Africa, Indonesia, Jamaica and UK





Participants at the launch of the Diabetic Retinopathy Network, November 2014

Each LINK partnership provides long-term training and skills development to the whole eye care team (ophthalmologists, eye nurses, optometrists and other staff) to enhance their expertise in treating, for example, childhood cataract, glaucoma and diabetic retinopathy.

This is achieved through regular training visits between partners. The emphasis is on joint learning and skills sharing; team and individual friendships develop alongside.

Many LINKS have been running for over five years and are bringing about lasting, measureable improvements in the diagnosis, treatment and care of people in Africa.

The VISION 2020 LINKS Programme and its 32 LINKS are unique worldwide. While many health links exist between partners in developing and developed countries, the LINKS Programme is the only one of its

kind in initiating, establishing, running and monitoring partnerships in a specific area of health care.

LINKS also provide a framework for increasing south-south interactions and sharing learning.

A recent innovation has been the establishment of a network of 15 LINKS working on diabetic retinopathy, a major and growing sight-threatening problem in Africa. The DR Network (DR-NET. COMM) will share learning and best practice amongst eleven countries that are establishing and building diabetic retinopathy services.

Open Digital Education Resources

ICEH are developing four open access (free) online courses for eye care workers:

Planning and managing for eye care	being piloted in 3 countries
Epidemiology for eye health	in development stage
Principles of research for eye care	for 2015 or 2016
Health development and eye care programmes	for 2016 or 2017

The courses are designed for individual eye health workers (clinicians or managers), providing them the flexibility of in-service learning without having to leave their work place.

The emphasis of the content is to provide a public health approach to eye care.

The courses consist of video presentations to watch, articles to read, interactive assessments and discussion forums, which provide an online global network for participants.

The courses are copyright free so training institutions can adapt them for their own curriculum.

Concluding reflection and discussion by Daniel Dankyi – 2014:

“This course has shed more light on things that most of us have overlooked. It has broadened my horizon on the management of good eye health services which resonates with the vision 2020 programme. This will enable me to be up and doing in my area of work. The downloaded presentations will also serve as a guide and future reference when planning for cataract surgeries and refractive error and low vision services. THANKS A LOT.”

LSHTM Moodle

Session 4. Cataract control strategies

Welcome to session four. In sessions 2 and 3 we examined the growing burden of visual impairment and at how eye care programmes have been implemented in order to address this problem.

We are now ready to address our third course objective, to evaluate the key disease public health control strategies to strengthen service provision for cataract and refractive error, at a local setting. We will look in detail at how to plan and manage strategies for cataract surgery.

We expect it will take up to 5 hours to complete all of this session's learning activities.


Daksha Patel and Sally Parsley

Why don't patients come for cataract surgery?

Beliefs
Fear
Lack of awareness

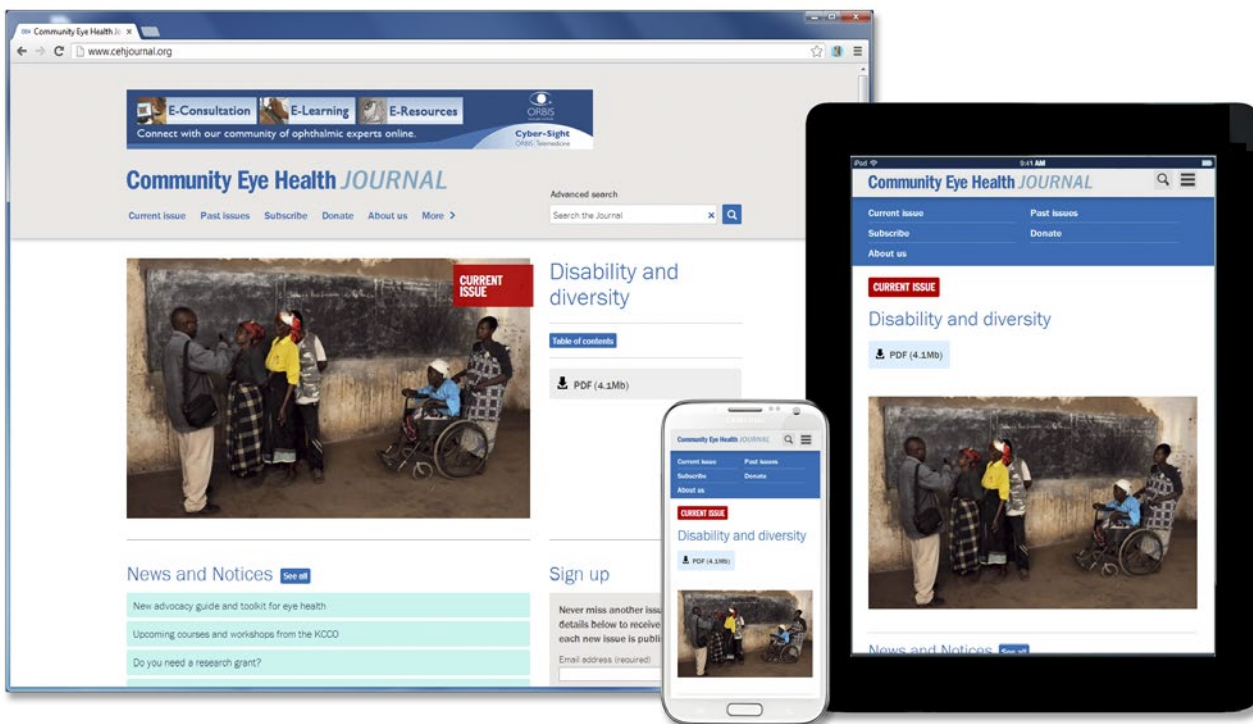
Traditional healers

Cost
Distance



- Activity A. Read learning outcomes for session 4
- Activity B. View presentation: Understanding cataract output
- Activity C. View presentation: Managing barriers
- Activity D - Test yourself: Cataract service delivery
- Activity E. Read article: Efficient high-volume cataract services: the Aravind model
- Activity F. View presentation: Managing cataract outcome
- Activity G. Download: Monitoring cataract surgical outcomes
- Activity H. View presentation: Managing the cost of cataract outlay
- Activity I. Test yourself: Managing cataract service delivery
- Activity J. Reflect and post your thoughts: Cataract surgical rate in your setting
- Optional Activity: Further reading

Our new **Open Educational Resource on Planning and Managing Eye Care** aims to deliver at scale training for the whole eye care team.



The Community Eye Health website works across multiple devices and is configured to load quickly on limited connections

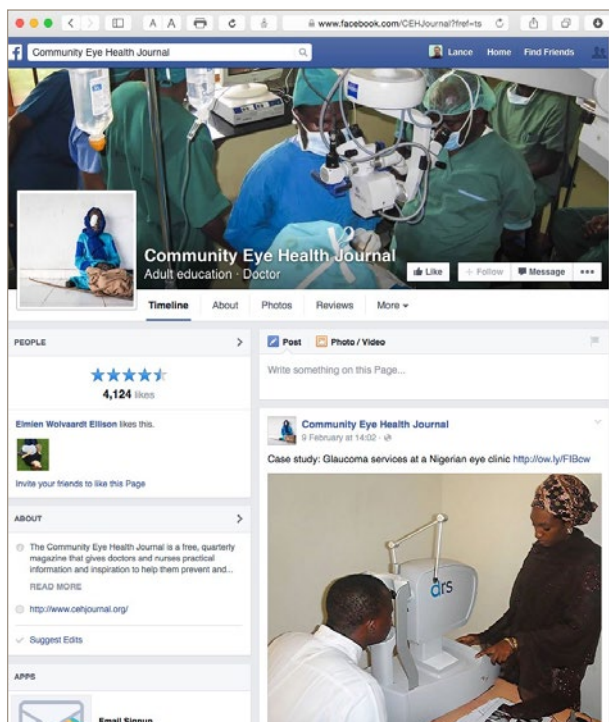
E Communications

The E-communications project supports ICEH's work by publishing and promoting our digital educational publications, in particular the Community Eye Health Journal.

The project's **main achievements** over the past five years include:

- Providing **internet access to the Community Eye Health Journal (CEHJ)**.
 - The journal currently has 3,900 email subscribers
 - The website receives 20,000 visits per month.
 - A further 40,000 users access the journal online through the US government's PubMed service each month.
- Extending the impact of the journal and ICEH publications by **annually distributing a CD** of all back issues together with other eye educational materials. The 2014 edition of the CD has been distributed to 23,000 eye care workers in low-income countries.

- Extending access to ICEH materials through the **ICEH website** which currently receives 1,500 visits per month.



- Launching a social media strategy to raise the online profile through Twitter, Facebook etc. The **CEHJ Facebook page** currently has 4,070 followers.

Commonwealth Eye Health Consortium (CEHC)

The Commonwealth Eye Health Consortium is a group of eye health organisations from several Commonwealth countries working together to deliver an exciting, integrated, five-year programme of fellowships, research and technology.

The long-term aim is to strengthen eye health systems and quality of eye care throughout the Commonwealth.

The Consortium was developed and is coordinated by the International Centre for Eye Health. It is funded by a grant from The Queen Elizabeth Diamond Jubilee Trust.

The Consortium focuses on three areas:

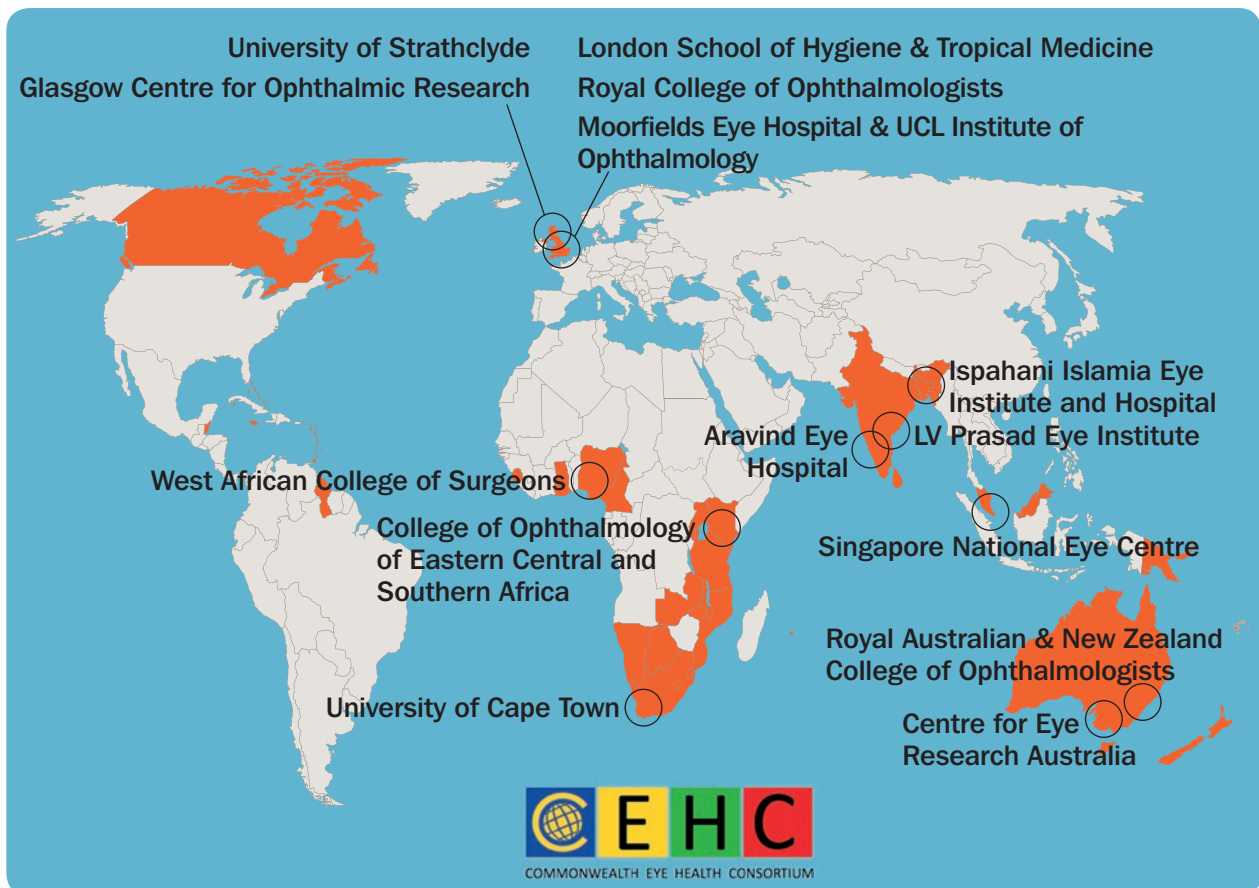
People, Knowledge, and Tools

Masters Scholarships

The Consortium provides scholarships to study Public Health Masters programmes in South Africa and the UK to help equip ophthalmologists and eye care managers with the skills and knowledge they need to implement effective, sustainable programmes to prevent and treat blindness across the Commonwealth.

Clinical Fellowships

The Consortium's clinical fellowships programme is offering both long-term (one-year) fellowships and short-term (three-month) attachments to ophthalmologists from low and middle-income Commonwealth countries. Through the enhancement of



sub-specialty knowledge and skills and the delivery of high quality eye care, Commonwealth fellows can return to more effectively sub-speciality services in their own countries.

Diabetic Retinopathy Network

The Consortium is addressing the growing burden of diabetic eye disease across the Commonwealth by supporting the development of a network of hospital-based training links between Commonwealth and UK partners. Part of the VISION 2020 Links Programme, the network will enable Commonwealth eye health professionals to share their experiences and knowledge in developing diabetic retinopathy screening and treatment services.

Research Fellowships

The Consortium will nurture eye research capacity across the Commonwealth by providing a number of clinical research fellowships at PhD and postdoctoral level, and provide networking opportunities to help develop and extend collaborations. Through these different fellowships and other related research projects, it is anticipated that much relevant new knowledge focused on eye

health in low and middle income settings will be generated.

Open Educational Resources

The Consortium is developing a new set of Open Educational Resources, which will be freely available, online educational materials. These distance-learning tutorials will provide training in the epidemiology of eye disease, principles of research in eye care and health development and eye care programmes.

Peek

Peek – the portable eye examination kit – is a multifunctional, smartphone-based tool which aims to empower eye health workers to diagnose eye diseases and provide a low-cost device for managing and monitoring the treatment of patients, even in the remotest of settings. The Trust is supporting further development, testing and roll-out.

OpenEyes

OpenEyes is an Electronic Patient Records system for ophthalmology. The Consortium is supporting the installation of OpenEyes in about 40 eye units.

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ICEH Donors and Supporters

We would like to thank the following Supporters and Donors of ICEH in Partnering with us in the Global Mission to Eliminate Avoidable Blindness and Visual Impairment

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Club Jules Gonin
Commonwealth Shared Scholarship fund
Conrad N Hilton Foundation
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International Agency for Prevention of Blindness (IAPB)
International Health Links Funding Scheme
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Joint Japan/World Bank Graduate Scholarship Programme
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Tijssen Foundation
Tropical Health & Education Trust (THET)
Veta Bailey Charitable Trust
Vision Impact Institute
Vision Mundi
Wellcome Trust

ICEH Publications 2010–2014

2014

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