Sightsavers

Evaluation Report

End of Term Evaluation of the Promoting Quality Ophthalmology in East Africa project

Contract number: DCI-NSAPVD/2008/168-629

Final Report

July 2014

Sightsavers

COECSA
COLLEGE OF OPHTHALMOLOGY OF EASTERN, CENTRAL AND SOUTHERN AFRICA

LIGHT FOR THE WORLD

Sightsavers

The evaluation was commissioned and managed by the Evaluation Unit of Sightsavers based in the United Kingdom with support from the Regional Office for Eastern, Central and Southern Africa in Nairobi, Kenya.

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The opinions expressed in this document represent the author's views and opinions which are not necessarily shared by Sightsavers or its partners.

(i) ACKNOWLEDGEMENT

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(ii) LIST OF ABBREVIATIONS AND ACRONYMS

BHVI	Brien Holden Vision Institute
CBM	Christian Blind Mission
CD	Communicable Diseases
CME	Continuing Medical Education
COECSA	College of Ophthalmology of Eastern, Central and Southern Africa
CPD	Continuing Professional Development
DRC	Democratic Republic of Congo
EACO	Eastern African College of Ophthalmology
EU	European Union
FEH	Flying Eye Hospital
FHF	Fred Hollows Foundation
HMIS	Health Management Information System
HR	Human Resources
HReH	Human Resources for Eye Health
IAPB	International Agency for the Prevention of Blindness
INGO	International Non-Government Organisation
KCMC	Kilimanjaro Christian Medical College
KRA	Key Result Area
LFW	Light for the World
M. Med	Master of Medicine
MCQ	Multiple Choice Question
MDG	Millennium Development Goals
MEACO	Middle East Africa Council of Ophthalmology
MOH	Ministry of Health
MOU	Memorandum of Understanding
MUHAS	Muhimbili University of Health and Allied Sciences
MUK	Makerere University
MUST	Mbarara University of Science and Technology
NCD	Non-Communicable Diseases
NGO	Non-Government Organisation
OCO	Ophthalmic Clinical Officer
OEU	Operation Eyesight Universal
ON	Ophthalmic Nurse
OO	Overall Objective
OSCEs	Objective Structured Clinical Examination
OSEA	Ophthalmology Society of East Africa
OVI	Objectively Verifiable Indicator
PBU	Prevention of Blindness Union
PP	Project Purpose
PQO	Promoting Quality Ophthalmology
RCO	Royal College of Ophthalmologists
RG	Reference Group
ROM	Results Oriented Monitoring
SiB	Seeing is Believing
SICS	Small Incision Cataract Surgery
SS	Sightsavers
TOR	Terms of Reference

TOT	Training of Trainers
UK	United Kingdom
UON	University of Nairobi
WHO	World Health Organization

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(iv) EXECUTIVE SUMMARY

Introduction
The Promoting Quality Ophthalmology (PQO) in East Africa project is a five-year multi-country, multi-site and multi-component intervention that was funded for € 3,021,515.70 consisting of €2,260,000.00 from the European Union and co-funding worth €761,515.70 from the consortium of international non-government organisations led by Sightsavers. The PQO was implemented by the College of Ophthalmology of Eastern, Central and Southern Africa (COECSA), formerly the Eastern Africa College of Ophthalmologists (EACO) on the basis of a Memorandum of Understanding signed with the lead agency and contract holders, Sightsavers.

This evaluation of the PQO was commissioned by the Evaluation Unit of Sightsavers and conducted in May, 2014.

Purpose of evaluation
The overall purpose of the evaluation is to establish to what extent the PQO has contributed to poverty reduction by improving access to eye health and the quality of eye care in Kenya, Uganda and Tanzania. The evaluation is expected to measure the extent to which the project has fully implemented and delivered outputs and attained outcomes, by specifically measuring programme results.

Scope of the evaluation
The evaluation assessed the implementation of the PQO over the 5-year period from 2009 until 2013 and was conducted in the three countries in which the PQO was implemented: Kenya, Tanzania and Uganda.

Methodology
The evaluation used mixed methods, summative design involving both qualitative and quantitative components. A process-impact-outcome approach was adopted guided by a logframe last modified by COECSA in 2011 as the basis for the assessment of the overall performance of the PQO. The qualitative component included document review, semi-structured interviews, group interviews, observation and case studies while the quantitative element involved two surveys.

Thematic analysis was used with the qualitative data whilst the quantitative data was analysed using Surveymonkey ® and Microsoft Excel ® software.

Findings
Relevance

Relevance…… *Rating:* Highly Satisfactory: 

The PQO is a highly relevant intervention that addressed the eye health service needs of the East Africa region by supporting capacity building initiatives in four key areas of human resources for eye health, infrastructure, eye health service delivery and research. The four key areas mirror the building blocks for health systems strengthening established by the World Health Organization (WHO). The project design has remained highly relevant in terms of its focus on poverty alleviation through prevention of avoidable and treatable blindness and

low vision and close alignment with national and global policies on eye health. The PQO design adopted two coordinative approaches: consortium approach and the multi-country and regional approach. The consortium approach to mobilisation of donor funding is consistent with the harmonisation principle and is perceived as best practice whilst the multi-country and regional approach fosters regional integration and cooperation.

Design weaknesses mostly relate to the project's logframe.

Effectiveness

Effectiveness*Rating:* Highly satisfactory*:* 

The major achievements under this heading were:

Enhanced training capacity- Two new eye units were constructed at Mbarara University of Science and Technology (MUST) and University of Nairobi (UON) whilst teaching, diagnostic and surgical eye equipment and books were provided to all the five participating universities. The other three are Makerere University (MUK), Muhimbili University of Health and Allied Sciences (MUHAS) and Kilimanjaro Christian Medical College (KCMC). The immediate changes as a result of the support include enhanced training and eye health service delivery capacity.

Strengthened faculty- Twelve ophthalmologists were trained in a range of specialisations. In addition 144 ophthalmologists participated in continuing medical education programmes supported by the PQO. The training resulted in quantitative and qualitative improvements in specialist eye health services available in the region. Training capacity also improved.

Strengthened operational capacity- A harmonised curriculum for training of ophthalmologists was developed for the region. When fully adopted across the region, the curriculum will enable common core components to be taught at all the five universities. One of the benefits would be instant recognition of the qualification within the region. Fifty nine students benefited from the scholarship scheme established by the PQO. The graduands are expected to add to the eye health workforce in the region. As a result of the scholarship support, student intake at the universities increased by 50% since the PQO started and student retention has improved.

Enhanced research capacity- Ninety three university staff and students trained on research methods resulting in improved research skills and increased interest in research. Fourteen research studies were undertaken across the region. The evidence was yet to be published although its use in planning of eye care services had already started, albeit on a small scale.

Utilisation of eye care services- As a result of the improved institutional capacity, 273 outreach programmes were conducted leading to 40,542 patient examinations and 6,077 eye surgeries being performed across the region. Anecdotal evidence suggests that outreach services were contributing towards poverty alleviation. The persons whose eyesight was restored were now able to lead independent lives, engage in productive activity and in the case of children resume their education.

Efficiency

Efficiency ***Rating: Satisfactory:*** 

The PQO's operational activities were managed and coordinated by COECSA through its Secretariat. Overall, COECSA provided good stewardship of the PQO. Most of the planned activities were realised. Financial management and control was good as demonstrated by the results of annual financial audits.

Inefficiencies were caused through project creep, inadequate risk assessment and management processes and procurement challenges.

Impact

Impact ***Rating:* Highly satisfactory:** 

The PQO is making a positive impact on the lives of individual people and organisations within the East Africa region. It is contributing to poverty alleviation through eye examinations and sight-saving eye surgeries performed using the static clinics and outreach programmes. This evaluation collected evidence that showed that adult beneficiaries of eye surgeries were able to integrate in their societies and to engage in productive activities whilst children were able to resume their education.

New eye health initiatives including Seeing is Believing (SiB) and Flying Eye Hospital (FEH) projects have built on the achievements of the PQO. SiB is using the human resources for eye health developed by the PQO to implement its child eye health programme whilst FEH will improve further sub-specialty expertise in the region.

The links programme resulted in the development of four evidence-based treatment guidelines for the treatment of retinoblastoma, glaucoma, trachoma and oncology. The guidelines set the standards for professional practice and introduction of new student examination methods.

Sustainability

Sustainability ***Rating:* Highly satisfactory:** 

The likelihood that the achievements of the PQO will continue well after the project completion remains strong. The project is embedded within the existing structures of the participating universities and was implemented by them as the owners of the investments. Policy support is good. The investment in physical infrastructure and equipment is expected to continue to offer benefits in a number of domains for the foreseeable future. Moreover, the infrastructure has improved each country's medium to long term capacity to prepare and train a quality eye health workforce and is augmenting the capacity for ongoing professional development of HReH.

Donor funding will continue to be required to support interventions in eye health due to the paucity of the financial contribution of the government. The multiplicity of NGOs working in eye health in the region augurs well for project sustainability. Equipment maintenance and repair poses a great challenge in the region. This is seen threatening the sustainability of equipment supplied by PQO. Future interventions in eye health would do well to address capacity gaps in this area.

The focus on eye health systems strengthening should be maintained since this element is likely to be continued in the aftermath of the MDGs era.

Replicability

Replication ***Rating:*** **Highly satisfactory:** G

The PQO experimented with a number of innovative strategies that can be replicated or scaled up within the region and beyond it. The innovations are built around the harmonisation/coordination principles of the Paris Declaration and the WHO's six building blocks for health systems strengthening. They include the consortium approach, the regional approach, scholarships, scholarship harmonisation, sub-specialty, equipment, research, harmonised curriculum and outreach.

Coherence/coordination

Coherence/Coordination ***Rating:*** **Highly satisfactory:** G

The PQO contributed significantly to improving inter-agency and international cooperation. This has been ensured through the multi-country, multi-stakeholder and multi-site as well as the consortium approaches adopted for the design of the PQO. The regional project created excellent opportunities for inter-agency coordination and collaboration as demonstrated by the establishment of the common basket for funding of scholarships in the region. At the national/regional level, coherence between the training institutions was strengthened as demonstrated through internship programmes and sharing of examiners, information and ideas.

Lessons learned

The lessons learned relate to the need for:

- an eye health advocacy strategy to focus awareness and education activities
- a research strategy on eye health to provide a clear framework to guide research activity within the region
- a breakdown of targets to be achieved for each site to be provided in the funding proposal in order to support effective management of multi-country, multi-site and multi-component projects
- establishment of a central procurement position to coordinate procurement activity in future
- the need to ensure costing of construction is based on adequate risk assessment and management processes

COECSA

COECSA needs to enter into dialogue with its constituents and key partners. The conversation should inform the direction the College should take going forward. There is also need for COECSA to engage with partners in the INGO/NGO and private sector in order to identify opportunities for broadening the funding base. The College should use the expertise within the organisation to generate income.

Conclusion and recommendations

This evaluation has concluded that the PQO is a relevant intervention that contributed improvements to training, research and eye health service delivery capacity in the region. The project is addressing poverty by enabling people affected by blindness and low vision to regain their eyesight and re-integrate in their communities.

The following suggestions are being made:

Sightsavers/COECSA

1. Consider aligning indicators for interventions in the eye health sector to the WHO and national data requirements in order to strengthen the national HMIS and to objectively determine the impact of the funded projects.
2. Whilst retaining focus on training of ophthalmologists, consider giving greater attention to improving the production capacity of midlevel eye care worker training institutions in the region in order to scale up eye health service delivery and accelerate progress towards achievement of the Vision 2020 targets. Attention given at this level of eye health cadre would address the priority area for HReH in the three countries and strengthen primary and secondary health care structures.
3. Consider funding research studies in the region in order to establish more accurate benchmarking data on the prevalence and incidence of blindness and low vision that can be used to inform advocacy campaigns and policy formulation and to support planning of eye health programmes in future.
4. Lead and coordinate the development of a regional advocacy strategy on eye health that clearly identifies the focal themes and key messages that should be jointly implemented with the COECSA partners.
5. Consider supporting the training of eye equipment technicians in order to address the shortage being felt across the region and to enhance the sustainability of the equipment provided by the PQO.
6. Consider adopting the results-based monitoring system when reporting project progress in order to give a complete picture of the performance of a project.

COECSA

7. Consider reviewing the COECSA Constitution and Articles of Association to reflect the changes within organisation.
8. Consider setting up and maintaining, on annual basis, a database for HReH in the region that caters as the central reference point for stakeholders in eye health and can be used to monitor the regional performance in this area on ongoing basis.
9. Strengthen engagement with the existing stakeholders working in eye health, especially the INGOs, with the view to strengthen and diversify resource mobilisation
10. Working collaboratively with key partners, establish a research framework that identifies the research needs and focal areas in the region in order to guide research activity that is coordinated by COECSA.

1. INTRODUCTION

This final report presents the outcome of the evaluation of the Promoting Quality Ophthalmology in East Africa (PQO) project. The evaluation was commissioned by the Evaluation Unit of Sightsavers and carried out by independent consultant, Kuda Muyambi during the period 5 May 2014 until 16 May 2014.

Following the award of the contract for the external evaluation of the PQO, an inception report, including the evaluation methodology, deliverables and proposed work schedule, was presented to Sightsavers and approved following a couple of revisions. The data collection tools including interview topic guides and surveys were also presented for review.

1.1 Evaluation background

1.1.1 Purpose of the evaluation

The purpose of the evaluation is to establish the extent to which the project has contributed to poverty reduction by improving access to eye health and enhancing the quality of eye care in Kenya, Uganda and Tanzania. The evaluation is expected to measure the extent to which the project has fully implemented and delivered outputs and attained outcomes, by specifically measuring programme results. It is also expected to contribute towards shared learning and provide accountability to partners, beneficiaries and donors.

Specifically, the objectives of the end-term evaluation were to:

1. Analyse and verify the achievement of intended results and outputs as described in the project logical framework, and assess the performance of the project against its set objectives as well as the challenges that the project faced over the implementation period.
2. Assess whether or not the action, design and implementation strategies were consistent with the overall goal of the project.
3. Establish the extent to which the project and its activities have effectively contributed towards building the capacity of five ophthalmic teaching universities to provide quality eye care training, research and clinical services.
4. Identify and provide examples of strategies and approaches that have been successful and empowering, and consider the degree to which these could be consolidated or replicated.
5. Identify the strengths and promising practices of the project that can be consolidated and replicated and where possible be built on in future Human Resource for Eye Health in East Africa.
6. Generate substantive evidence-based knowledge on best practices and lessons learned through the implementation of the project that could be useful to other development interventions at national and international level.
7. Come up with recommendations which will be shared with key stakeholders of the project and used by the implementing agencies to guide and inform future similar projects and programmes.
8. Determine how the capacity of COECSA could be further strengthened.

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1.1.2 Scope of the evaluation

The evaluation assessed the implementation of the PQO over the five years from 2009 until 2013 and was conducted in Kenya, Tanzania and Uganda, the three countries in which the PQO was implemented. The five participating Universities including Kilimanjaro Christian Medical College (KCMC) and Muhimbili University of Health and Allied Sciences (MUHAS) in Tanzania; Makerere University (MUK) and Mbarara University of Science and Technology (MUST) in Uganda and University of Nairobi (UON) in Kenya were included in the sampling frame.

The evaluation assessments covered seven broad evaluation criteria – Relevance, Effectiveness, Efficiency, Impact, Sustainability, Replication/Scalability and Coordination/Coherence – which provided the over-arching framework for the evaluation.

1.1.3 Structure of the report

This evaluation report consists of four Chapters structured as follows:

Chapter 1: Introduction – This Chapter presents a brief overview of the evaluation purpose and scope as well as background and contextual information.

Chapter 2: Methodology – This Chapter describes the evaluation approach, design, method and the information sources consulted. It also discusses the challenges and limitations.

Chapter 3: Findings – This Chapter presents the evaluation findings using the seven evaluation criteria as the over-arching framework. It also presents the lessons learned and discusses suggestions for strengthening COECSA.

Chapter 4: Conclusions and recommendations – This Chapter presents the conclusions and recommendations

Generally, the structure adopted for this report closely follows the report format required by the Evaluation Terms of Reference (Annex 1).

1.1.4 The PQO- an overview

The Promoting Quality Ophthalmology (PQO) in East Africa project is a five-year multi country, multi-component and multi-site intervention that was funded for € 3,021,515.70 consisting of €2,260,000.00 provided by the European Union and co-funding worth €761,515.70 from the consortium of international non-government organisations led by Sightsavers. The PQO was implemented by the College of Ophthalmology of Eastern, Central and Southern Africa (COECSA), formerly the Eastern Africa College of Ophthalmologists (EACO) on the basis of a Memorandum of Understanding signed with the lead agency and contract holders, Sightsavers.

The objectives of the project include:

- Overall objective: To contribute to poverty reduction by improving access to eye health and the quality of eye care in Kenya, Uganda and Tanzania.

- Specific Objective: To build the capacity of five ophthalmic teaching universities to

provide quality eye care training, research and clinical services.

The five key results areas of the PQO are:

- *Key result 1:* Project management and implementation framework developed and operationalised
- *Key result 2:* Improved capacity among eye care professionals to provide relevant and timely interventions to those in need
- *Key result 3:* Enhanced capacity of the target institutions in research to facilitate access and utilisation of high quality eye services
- *Key result 4:* Provision and utilisation of eye care services
- *Key result 5:* Improved institutional capacities of the five target universities

The project period was from 1 January 2009 until 31 December 2013.

1.1.5 Target group and stakeholders for the evaluation

The target group and key stakeholders of the PQO included the group of 5 ophthalmic teaching universities across three national jurisdictions in Kenya, Tanzania and Uganda. Other stakeholders included the project administrators and implementation officers, funding bodies and government and non-government organisations working in eye health.

The beneficiaries and primary audience for this evaluation included the relevant University Departments of Ophthalmology in their capacity as training institutions for ophthalmologists, their staff and students. The secondary beneficiaries and audience include the recipients of the eye health services provided by the training institutions.

1.1.6 Context

Blindness and low vision impose significant social and economic burdens on individuals, families and communities. Activities including mobility, watching television, reading, learning and the ability to perform everyday tasks are affected. Blindness or poor vision can result in poor quality of life, disability, loss of productivity, loss of independence, social isolation, premature death and mental disorders[1](Centres for Disease Control undated).

Globally, blindness and visual impairment account for a significant Years Lost to Disability (YLDs). In 2010, visual impairment accounted for 21.1 million YLDs or 2.7% of the global total YLDs. Cataract, uncorrected refractive error, glaucoma, trachoma and onchocerciasis accounted for much of the YLDs from vision loss globally in 2010. The greatest burden of this problem is experienced in sub-Saharan Africa[2](Murray, Vos et al. 2012).

Blindness and low vision are the priority foci of a variety of the World Health Organization (WHO) -sponsored initiatives against vision loss, among them the *Action Plan for the Prevention of Avoidable Blindness and Visual Impairment: 2009-2013'.* Vision 2020 aims to increase the number of trained eye care professionals, improve accessibility to eye care services, provide facilities and equipment and implement cost-effective eye health services[3].

[11]Centres for Disease Control (undated) Improving the nation's vision health: a coordinated public health approach

[2]Murray, Vos et al (2012): Disability-adjusted life years (DALYs) for 291 diseases and injuries in 21 regions, 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010.
[3]WHO (2010) : Action plan for the prevention of avoidable blindness and visual impairment 2009-2013

Cataract and onchocerciasis are classified under WHO Category 1 together with communicable infectious and parasitic diseases including tuberculosis, malaria and diarrhoeal diseases all of which are associated with poverty. Together with trachoma, onchocerciasis is also categorised by the WHO as a Neglected Tropical Disease (NTD)[4](Gyapong, Gyapong et al. 2010, Editorial 2014).

Onchocerciasis is the target of the Goal 6 of the Millennium Development Goals (MDG) which aims for control of HIV/AIDS, malaria, tuberculosis and other tropical diseases(Gyapong, Gyapong et al. 2010) while the elimination of trachoma worldwide by 2020 is the focus of the Global Elimination of Trachoma (GET) initiative[5](Gambhir, Basáñez et al. 2007).

The sub-Saharan Africa region is experiencing a health workforce crisis. Shortage of skilled workers is exacerbated by poor skill mix in those workers[6](World Health Organization 2007). According to the WHO, scaling up of the training of the health workers is required to address the shortage. Scaling up implies investments in health workforce production through infrastructure provision, strengthening faculty and improving organisational capabilities such as books, equipment, curriculum and reducing attrition(World Health Organization 2007, World Health Organization 2009). Task shifting in which tasks are delegated to existing or new cadres with less training has become widely recognised as an effective strategy for addressing health workforce shortage and skill mix imbalances in the developing world[7](Fulton, Scheffler et al. 2011).

[4]Gyapong, J. O, Gyapong, M et al (2010): Neglected Tropical Diseases 2: Integration of control of neglected tropical diseases into health-care systems: challenges and opportunities. The Lancet, 373 (9709) 160-5.
[5]Gambhir, M., Basanez, M., et al. (2007) Trachoma: transmission, infection and control.Lancet Infectious Diseases vol. 7 p420-27.
[6]WHO (2007) Vision 2020: the Right to Sight- Global Initiative for the Elimination of Avoidable Blindness: action plan 2006-2011.
[7]Fulton, B. D., Scheffler, R. M et al.(2011) Health workforce skill mix and task shifting in low income countries: a review of recent evidence, Human Resources for Health vol. 9 (1).

2. METHODOLOGY

2.1 EVALUATION APPROACH AND METHOD

2.1.1 Evaluation oversight

This evaluation was overseen by the Reference Group (RG) comprising the representatives from the Sightsavers Evaluation Unit (UK), the Sightsavers Regional Office for East, Central and Southern Africa and the COECSA Secretariat. The RG provided guidance and direction to the evaluation and reviewed the data collection tools including lists of evaluation participants. The RG also reviewed the draft evaluation report. The mix of organisations and technical experience involved in the RG ensured that different views were heard, biases prevented and impartiality secured.

2.1.2 Evaluation approach

The process-impact-outcome approach was adopted for this summative evaluation. The logframe for the PQO provided the framework against which the overall performance of the project was assessed. The logframe was last modified in 2011[8](College of Ophthalmology of East Central and Southern Africa 2011).

2.1.3 Evaluation method

The evaluation used a mixed methods design involving both qualitative and quantitative components. A case study approach was used. This mixed methods approach ensured that different information sources were consulted using different data collection methods. The use of case studies is consistent with the multi-country nature of the PQO project. The mixed methods design was intended to achieve optimal consultation and to ensure that diverse views and opinions were heard from a range of stakeholders of the PQO. The qualitative component included document review, semi-structured individual and group interviews, observation and case studies. The quantitative elements involved the use of two surveys: one for the residency students and the other for the beneficiaries of the sub-specialty and continuous professional development grants.

2.1.3.1 Document review

With the primary aim of understanding the context, development and implementation of the PQO, this evaluation reviewed documentation generated by the project since 2009 including the funding proposal, progress reports and financial reports. Research publications and government documents sourced using the Web-based database searches were also reviewed.

2.1.3.2 Interviews

Individual and group interviews were held with a variety of stakeholders of the PQO at regional and country level. With the exception of one interview which was held using Skype, most interviews were conducted face-to-face. Interview participants included staff from Sightsavers and COECSA, representatives from the five participating Universities, relevant government departments, consumers of eye health services and the beneficiaries of the

[8]COECSA (2011) Logframe

various scholarships and grants provided by the PQO project. Semi-structured interviews were conducted, using a question guide to keep interviews relatively focused.

A full list of the participants of the interviews is given in Appendix 3 whilst Table 2 below provides a statistical summary of the evaluation participants (Table 1).

2.1.3.3 Case studies

Each participating country was treated as a case study. Case study visits were made to Kenya, Uganda and Tanzania between 7 May and 14 May 2014.The country case studies provided valuable insight into the implementation and performance of the PQO in each country.

2.1.3.4 Surveys

Two sets of online surveys were used, the first for the beneficiaries of the scholarship and the second for recipients of continuing professional development, sub-specialty and research grants. The surveys were enabled using SurveyMonkey ® software and could be accessed via a web-link that was embedded in an email sent to participants by COECSA. The initial email was followed up with two reminders sent on 7 May 2014 and 14 May 2014. The surveys were available for completion between 29 April 2014 and 16 May 2014.

Thirty past and present recipients of the ophthalmology study scholarships (of a possible 67 awardees) responded to the scholarship survey, giving the response rate of 45%. Thirty out of a possible 41 recipients of the continuous professional development, sub-specialty and research training grant scheme completed the second survey, giving a response rate of 73% (Table 1).

2.1.3.5 Observation

The observation method involved assessment of the physical infrastructure and equipment provided by the PQO to the participating universities. It also involved observation of the provision of eye health services at static or outreach eye clinics.

2.1.4 Sampling

Purposive sampling was used to recruit participants of the interviews. The sampling method was chosen due to its capacity to enable identification of participants based on their in-depth knowledge of the PQO and ability to contribute reliable information to the evaluation.

All the recipients of the residency scholarships and continuing medical education/research grants were eligible to participate in the surveys. The scholarship or grant records maintained by COECSA were used to identify / notify potential recipients [9](Plumridge E 2000).

[9]Plumridge, E. W. (2000) Qualitative approaches in health research. New Zealand Medical Journal, vol. 113 (1121) p.454-5.1

Table 1: Evaluation participants

Organisation	*No. of participants*
Interviews	
Sightsavers	6
COECSA Secretariat	3
Staff of the 5 participating Universities	23
M. Med (Ophthalmology) students	40
Eye Health Service Managers/Policy makers	4
Eye Health Service Providers	9
Eye Health Service Users	10
NGO sector representatives	5
Subtotal: interviews	*99*
Surveys	
Scholarship grants (M. Med students)	30
Continuous professional development, subspecialty and research grants	30
Subtotal: surveys	*60*
Total participants	**159**

2.1.5 Data analysis

The qualitative data was coded, categorised and collapsed into themes while the quantitative data was analysed using Microsoft Excel ® and SurveyMonkey ® software.

2.1.6 Challenges and limitations

The PQO is a multi-country project implemented across geographically disparate sites within the East Africa region. The large distances travelled during the field visits meant that considerable time was spent travelling. This limited the time available for consultations with the project stakeholders. To overcome this, individual and group interviews and surveys were held, where appropriate.

Most of the interviews were held in the open or in the presence of other people including the project administrators. Apart from confidentiality and anonymity concerns, this may have influenced what the respondents said or did not say.

3. FINDINGS

The findings of this evaluation are presented within the framework provided by the seven evaluation criteria: Relevance, Effectiveness, Efficiency, Impact, Sustainability, Replication/Scalability and Coordination/Coherence. The following elements have also been considered.

It is a requirement of the TOR that the evaluation identifies lessons learned during the implementation of the PQO. A discussion of the lessons learned follows the Section on Coordination/Coherence.

It is also a requirement of the TOR that the evaluation identifies the strategies and approaches used in the implementation of the PQO that were perceived as successful and empowering, and could be considered for consolidation or replication. The identified strategies and approaches are presented throughout this report in italicised format, numbered and underlined.

The TOR for this evaluation indicated an evaluation that would focus on documenting best practice used in the implementation of the PQO that could be useful to other development interventions at national and international level. The identified best practices have been presented in bold and numbered format enclosed within special Tables that appear elsewhere in this report. For purpose of this evaluation *'Best practice'* is understood to refer to any successful process or technique or innovation that leads to significant improvement in performance or quality of a project.

Finally, the evaluation TOR requested this evaluation to identify opportunities for strengthening COECSA. This is discussed towards the end of the report after the Section explaining the lessons learned.

4. RELEVANCE

Relevance……Rating: Highly satisfactory . 

Relevance relates to whether or not the programme was consistent with the needs, priorities and policies of the target group, in this instance the participating ophthalmic teaching universities. It determines whether the project was aligned with global, national and sectoral policies and priorities and whether the activities and outputs of the programme were consistent with overall goal and the attainment of its objectives.

This Section addresses Evaluation Objectives (1), (2), (5) and (6).

4.1 Blindness and low vision

Blindness and low vision are issues of public health concern worldwide and within the East Africa region. The eye conditions have debilitating effects on quality of life of the individual, family, community and the nation. The information collected during the field visits and

corroborated by research evidence shows that the leading causes of blindness in the region include cataract, trachoma, onchocerciasis, Vitamin A deficiency, refractive error, glaucoma, childhood blindness, trauma, macular degeneration and corneal scar. Most of the blindness and low vision is avoidable and treatable[10](Whitfield, Schwab et al. 1990).

4.2 Access to eye care services

The East Africa region experiences acute shortage of human resources for eye health. Apart from the health workforce shortage, physical infrastructure, equipment and consumables are also in short supply. These factors impact negatively on access to eye care services.

Prevalence and incidence rates for blindness and low vision in the region are not readily available. Planning for eye health service provision is currently based on the generalised results of population-based studies conducted by WHO which use the estimate of 1% of the population. The local eye health authorities felt that this figure is high for the region with estimates of 0.7% - 0.8% being mentioned. The absence of reliable information to use as benchmarks makes planning and targeting of eye health interventions in the region problematic.

In all the three countries where the PQO is being implemented, effort to tackle blindness and low vision faces many challenges. Shortages of resources both in terms of manpower and facilities are the major concerns. Physical infrastructure is inadequate and often outdated. Skilled eye care personnel are in short supply. As Table 2 below shows, the region still experiences a shortfall of 147 ophthalmologists and 383 ophthalmic clinical officers or cataract surgeons. The shortage is reportedly felt across all the other categories of eye care workers. The problems are exacerbated in rural areas because distribution of the scarce resources is concentrated in cities with few facilities available in rural communities.

The shortfalls have implications for access to eye care and delivery of eye health services which the PQO intervention aimed to ameliorate through the provision of physical infrastructure and equipment and facilitation of training of eye health workforce at the participating ophthalmic teaching universities. However, gaps still exist despite the PQO support.

[10] Whitfield, R., Schwab, L et al. (1990): Blindness and eye disease in Kenya: ocular status survey results from the Keanya Rural Blindness Prevention Project, British Journal of Ophthalmology, vol. 74, (333).

Table 2: Human resources for eye health situation in the region

Category	Kenya			Tanzania			Uganda		
	Ideal number based on WHO estimates	Current situation	Shortfall	Ideal number based on WHO estimates	Current situation	Shortfall	Ideal number based on WHO estimates	Current situation	Shortfall
Ophthalmologists	104	81	23	109	40	79	86	41	45
Ophthalmic Clinical Officers / Cataract surgeons	208	144	64	218	77	148	173	2	171
Ophthalmic nurses	208	75	133	218	315	(99) (excess)	N/A	N/A	N/A
Optometrists	N/At	N/A	N/A	436	257	177	345	5	340
Sources:	**National Eye Care Coordination Office, Tanzania Ophthalmic Services Unit, Kenya International Agency for the Prevention of Blindness**								

4.3 Alignment with national policies

The focus of the PQO objectives on poverty alleviation and capacity strengthening is closely aligned with the national policies in the region. In Uganda, the PQO objectives are consistent with those of the country's *Human Resources for Health Strategic Plan 2005-2020* and the *Health Sector Strategic Plan* which identify the availability of trained health workers as one of the factors limiting the delivery of health services[11](Government of Uganda 2007). The project is in harmony with the Government of Tanzania's policies, guidelines and operational documents including the *National Health Policy, the Health Sector Strategic Plan III (2009-2015),* the *Primary Health Services Development Program (2007-2017)*, the *National Eye Care Policy Guideline and the National Eye Care Strategic Plan 2011-2016*[12][13][14](The United Republic of Tanzania 2003, The United Republic of Tanzania 2007, The United Republic of Tanzania). Each of these policies emphasises human resource development, accessible health services, provision of infrastructure and equipment and poverty reduction. In Kenya, the *Vision 2030* aims to strengthen human resource capacity and to improve infrastructure for the provision of health services[15](Murray, Vos et al. 2012)

4.4 Alignment with Global health policies

The PQO is contributing towards the achievement of several international health interventions and strategies to which the Governments of the three participating countries are signatories. Through its focus on health systems strengthening and primary health care, the PQO is aligned with the principles of the *Ouagadougou Declaration on Primary Health Care and Health Systems in Africa - Achieving Better Health for Africa in the new*

[11]Government of Uganda (2007) Uganda Human Resources for Health Strategic Plan:2005-2020
[12] The United Republic of Tanzania (undated) Health Sector Strategic Plan III: Partnership for delivering the MDGs
[13] The United Republic of Tanzania (2003) National Health Policy
[14]The United Republic of Tanzania (2007) Primary health services development programme
[15]Government of the Republic of Kenya (2007) Vision 2030

Millennium[16].(World Health Organization 2008). The PQO is a blindness prevention intervention that is providing support to strengthen institutional capacity to train human resources for eye health and to provide eye health services. In this way, the PQO is consistent with the global health policies including the World Health Organizations' (WHO) *Vision 2020 the Right to Sight: Global Initiative for the Elimination of Avoidable Blindness Action Plan 2006-2011(World Health Organization 2007) and the Everybody business : strengthening health systems to improve health outcomes : WHO's framework for Action.* The Vision 2020 is a joint global initiative against blindness between the World Health Organization (WHO) and the International Agency for the Prevention of Blindness (IAPB).

The PQO is complementing and supplementing global efforts to eliminate trachoma by 2020. Trachoma is reportedly the second most common cause of blindness in the region after cataract[17].

The PQO is contributing towards poverty alleviation in the East Africa region. As such, it is supporting global efforts to achieve the Millennium Development Goal (MDG 1) on poverty alleviation. The project is addressing issues affecting maternal and child health thereby contributing towards the achievement of the MDG 4 on reduction of child mortality and the MDG 5 on improvement of maternal health. The contribution of the PQO towards women's health assumes greater significance considering that women in the region are more likely to be over-represented among the people with blindness and low vision than men[18]. The PQO is indirectly supporting the achievement of the MDG 2 on universal primary education and MDG 3 on gender equality and empowerment of women by creating opportunities for children to enter the education system and women to engage in productive activity respectively. This evaluation collected evidence that young persons whose sight was restored were able to resume their education whilst adults became involved in productive activity and took up leadership roles in their community.

By promoting access to health and education and improved quality of life, the PQO is addressing a number of human rights - the right to health, education, productive employment and a better standard and quality of life – enshrined in the *International Convention on Rights of Persons with Disabilities* and the *Convention on Rights of the Child*(United Nations 2006).

Trachoma and onchocerciasis are endemic in the East Africa region although the incidence and prevalence rates, especially for onchocerciasis, vary according to geographical area. The PQO is contributing to global efforts to tackle the two diseases which classify as Neglected Tropical Diseases.

4.5 Ownership

Local ownership of the project is strong and reflected at three levels of the Government, the participating five universities and COECSA. Through the respective Ministries of Health, the Governments in the region have continued to provide in-kind support to the project. Commitment to eye health is demonstrated through the establishment of National Prevention of Blindness Committees. The consortium of universities participating in the PQO is both the

[16]World Health Organisation (2008) Ouagadougou Declaration on Primary Health Care and Health Systems in Africa - Achieving Better Health for Africa in the new Millennium.
[17]WHO Blinding trachoma: progress towards global elimination by 2020Available: http://www.who.int/blindness/publications/get2020/en/

[18]Whitfield, R., Schwab, L. (1990) Blindness and eye disease in Kenya: ocular status survey results from the Kenya Rural Blindness Prevention Project. British Journal of Ophthalmology, vol. 74 (333)

beneficiary and implementing party for the intervention. The active involvement of the participating Universities in the implementation of the project helped to create a sense of ownership which supports project sustainability. The commitment of COECSA is demonstrated through its central role in administering, managing and coordinating the activities of the PQO. These factors combine to ensure project sustainability. They also support any future efforts to replicate or consolidate the intervention in the region.

4.6 Consistency with organisational policy

The project objectives are in line with the Paris Declaration on Aid Effectiveness in that they support government capacity development and implementation by government, both in the Ministry of Health and the training institutions. Moreover, the PQO focus on poverty alleviation is closely aligned with focal areas identified in the Sightsavers Strategic Plan 2012-2018 which include strengthening eye health services, education, social inclusion and community participation[19](Sightsavers). This is seen enhancing project sustainability as well as creating opportunities to use the same structures to implement similar projects in future[20](Organisation for Economic Co-operation and Development 2006).

4.7 Project design

The project design remains highly relevant. The design adopted for the PQO used the consortium and regional approaches to mobilise funds from the international aid organisations and to implement the intervention across national boundaries whilst ensuring that the project remained firmly embedded in existing national structures of the government.

The consortium approach is consistent with the principles of the Paris Declaration on Aid Effectiveness dealing with donor coordination and harmonisation. It involved at least three international non-government organisations (INGOs), Sightsavers, Light for the World (LFW) and Operation Eye Sight Universal (OEU), coming together to present a joint proposal for funding to the European Union. The approach is cost-effective in terms of administration expenses and reduces duplication while optimising coordination. The consortium approach is perceived as innovative practice which is attractive to donor organisations (Table 3). It is also seen as practice that can be replicated within the region and elsewhere.

Table 3: Best Practice 1

Best practice 1: The consortium approach to resource mobilisation is consistent with international development trends. The collaborative arrangement by SS, OEU, LFW and COECSA to expand training of ophthalmologists in the region is consistent with the harmonisation and alignment principles adopted under the Paris Declaration.

The multi-country and regional approach adopted for the PQO fosters regional integration and cooperation and fits closely within the East African Community (EAC) framework and objectives. The approach was perceived as reflecting best practice.

[19]Sightsavers (undated) Making the connections: Strategic Framework 2012-2018. Available: www.sightsavers.org

[20](Organisation for Economic Co-operation and Development (2006),.The Paris Declaration on Aid Effectiveness and the Accra Agenda for Action

The main thrust of the project is on capacity development. The focus is well targeted and appropriate. It is responsive to the national and global policies and priorities to improve access to eye health services by improving eye health workforce capacity, infrastructure and technology and enhancing research capacity.

The PQO was firmly embedded in national structures. It did not create parallel structures and additional burden on the already over-burdened and resource-constrained governments. This has implications for project sustainability.

The logframe submitted with the grant application was last updated in July 2011. The Overall Objective (OO) and the Project Purpose (PP) are clear, logical and address identified needs in all the three countries covered by the intervention. The project design is simple and achievable over the 5 year period approved for the project. The identified project activities support the attainment of the outputs and results.

The Objectively Verifiable Indicators (OVIs) identified in the logframe were poorly defined and not capable of supporting objective assessment of the performance of the project, especially at the outcome level. They are repetitive and lack specificity and periodicity. For example, OVI 1 for the PP level is identical to OVI 1 for Result 2 which reads *'At least 9 high quality eye health research projects initiated from the five eye health teaching units in the region.'* Output indicators have been given at the level of the PP and are therefore not capable of supporting measurement of performance at this level. Two of the three OVIs used at the OO level (*OVI 2- Cost effective strategies in the elimination of blindness and eye health guided by ophthalmic research* and *OVI 3- Evidence based policy formulation in the eye health care sub-sector in the region*) are not realistic and measurable. They are also not sufficient to measure changes in poverty levels. Importantly, they cannot be used to measure the impact of the PQO.(College of Ophthalmology of East Central and Southern Africa 2011). The comments are being raised in order to inform the planning of future projects.

The design of the PQO revealed extra weaknesses in the following two key areas. Firstly, the approved budget allocated equal amounts to individual components across all the five sites. This practice did not take into account site specific needs and the risk associated with building construction and the planning regulations used in each jurisdiction. The problem was most felt under physical infrastructure components of the project where the allocated funds proved to be insufficient resulting in over-runs on the approved budget allocation for the particular component. Secondly, the funding proposal did not specify the outputs which were to be achieved at each of the five sites but rather gave the global target for the region leaving the breakdown to be determined during project implementation. The omission made it difficult to monitor and report on performance at specific sites let alone national level and effectively removed accountability for performance from the local level. The problem would have been resolved by breaking down further the global targets. The omission resulted in distortions in the distribution of funds across the five sites with some sites benefiting more than others with equal or greater need as this allowed too much flexibility for funds to be moved across sites and national boundaries.

5. EFFECTIVENESS

Effectiveness……Rating: Highly satisfactory . 

Effectiveness is measured in terms of delivery of planned activities and outputs and the extent to which the programme objectives have been met. Effectiveness measures the extent to which an activity achieves its purpose, or whether this can be expected to happen on the basis of the outputs. Implicit within the criterion of effectiveness is timeliness.'

This Section addresses Evaluation Objectives (1), (3), (4), (5) and (6).

Overall assessment of effectiveness
Overall, there is strong evidence to suggest that the PQO has met and continues to meet the objectives for which it was established. The objectives include poverty reduction through improved access to quality eye care and enhancement of capacity for training, research and delivery of eye care services. The project met and in some cases surpassed its operational targets. The quality of infrastructure and equipment provided at the ophthalmic teaching universities is generally good. Faculty has improved leading to improvements in production capacity at the five universities, better access and utilisation of eye health services in both quantitative and qualitative terms. Research capacity has been enhanced leading to several research studies being undertaken in the region.

In this report the term 'production capacity' refers to the number that the ophthalmic training institutions can train using the resources they have.

5.1 Enhanced training capacity

The PQO addressed training capacity needs of the five ophthalmic teaching universities through provision of physical infrastructure and equipment, strengthening of faculty and operational capacity and establishment of linkages for which the project logframe identifies at least 10 indicators of performance.

5.1.1 Physical infrastructure

The design and implementation of the PQO involved decisions which limited the effectiveness as well as undermined the efficiency and impact of the project. In the main, the weaknesses relate to the project feasibility and risk assessment and management processes used during and after project design and the substantial scope creep that affected the project soon after its approval. The weaknesses were most evident within the physical infrastructure component.

The PQO funds allocated to physical infrastructure were originally earmarked for the upgrading of outpatient and theatre facilities at four eye teaching units at KCMC, MUHAS, MUST and UON. This arrangement was changed soon after project approval. The KCMC funds for construction were surrendered to MUK at the request of the previous administrators of the former institution who reportedly perceived that their institution (KCMC) was already well endowed in this area. This decision has been challenged by the present administrators at KCMC who have openly voiced their unhappiness about the decision made by their former

colleague which they contend was unilateral. It must also be mentioned that MUK was not part of the four tertiary institutions that were funded under the original funding proposal submitted to and approved by the EU.

The allocation to MUHAS was transferred to MUST after the former university had received equivalent grant funding from the Middle East Africa College of Ophthalmology/Prevention of Blindness Union (MEACO/PBU). MUHAS have alleged that the circumstances under which the transfer was made were less transparent even though they admit to receiving equivalent funding through MEACO/PBU. This means that in real terms MUHAS did not benefit much from the PQO financial input. At the same time the institution did not completely lose out because the MEACO/PBU grant compensated for the loss of the EU funds. The issue has remained a sore point for MUHAS despite the efforts by COECSA to placate the institution.

Following the above changes, the number of physical infrastructure projects was revised to three sites: two sites at MUK and MUST in Uganda and one site at UON in Kenya. However, the construction work at MUK never commenced due to challenges faced in relation to land acquisition and planning regulations. The challenges persisted for over four years leading to the cancellation of the construction project in mid-2013 due to the imminent risk that the construction activities would not be completed before the PQO finished. Effectively, the change meant that the number of construction projects and sites was further reduced from three to two sites at MUST and UON.

The changes made under the physical infrastructure component of the PQO put into question the transparency of the decision making processes at COECSA at the time. They also suggest that there were weaknesses in the project feasibility and risk assessment and management processes.

The PQO logframe coincidentally envisaged that two construction projects would be supported. This means that in so far as this OVI is concerned the project achieved 100% success rate.

The finished product at the two sites at MUST and UON is of high standard. The quality of workmanship is good. The quality of fittings and fixtures is also good.

At the time of the evaluation, the eye unit at MUST was already operating although the theatre facility was being under-utilised due to capacity constraints linked with shortage of mid-level eye care workers and nurses. The project appears to have been caught up in the freeze on recruitment to the public service imposed by the Government of Uganda. It must be mentioned that the new eye unit would need to carve its own niche in order to penetrate the stranglehold on the patient base by the nearby reputable and well-resourced and established Ruharo Eye Centre. At the time of the evaluation, MUST students and staff were occasionally commuting to Ruharo eye centre for hands on clinical and surgical experience.

The theatre at UON was not yet operational. Commencement of operations was being held back by some finishing touches which were yet to be put in place. The work was being covered under the defects liability period during which the contractor was responsible for rectifying defects. The facility was expected to open its doors to the public in June 2014.

The rehabilitation work done to the theatre at MUHAS falls outside the scope of this evaluation as it was funded under the grant provided by PBU/MEACO. Suffice it to mention the work has been finished.

5.1.2 Equipment

Various items of teaching, diagnostic and surgical equipment including operating microscopes, direct and indirect ophthalmoscopes, retinoscopes, vitrectomy machines and overhead projectors and reference books were provided at all the five universities. Some of the equipment has dual use making it useful as both a teaching and service delivery tool.

Overall, the quality of the equipment is good although there were issues raised with the standard and completeness of some of the items provided. This was unavoidable given the magnitude of the procurement and the associated problem of coordination of the purchases the bulk of which were sourced from overseas markets.

Provision of equipment and books as a result of the PQO has impacted positively on training and eye health service delivery and improved institutional capacity. The quality of teaching and learning has improved leading to improved surgical skills for students and improved surgical outcomes for patients. Diagnosis and decision-making has been enhanced. The availability and quality of eye health services has improved. Complications arising from diagnostic and surgical error have reportedly been controlled.

'… diagnostic equipment…. machines have changed the quality of services.' (Interview participant)

Due to the availability of equipment and enhanced capacity, wetlabs have become more regular at UON and KCMC. Wetlabs are important for hands on technical skills development.

The provision of diagnostic, surgical and teaching equipment to the Departments of Ophthalmology was described as very empowering by eye health service providers and lecturers. The activity can be replicated within the region and elsewhere using the training institutions but with procurement support being provided through COECSA.

Empowering strategy/activity: 1*The provision of equipment promotes confidence and contributes improvements in quality eye care provision.*

An emerging issue relating to the purchased equipment concerns local maintenance and repair capacity. The region does not have adequate capacity to maintain and repair most of the equipment supplied. Two eye care centres visited during the field trips, reported that some of the eye equipment provided by the PQO had become unusable and this was affecting provision of eye care services. This does not augur well for project sustainability and continued availability of eye health services. It underlines the need to build local capacity to repair and maintain eye care equipment.

5.2 Strengthening faculty

The strategies adopted for strengthening faculty included sub-specialty training, continuous medical education and accreditation. According to the logframe, the PQO was expected to facilitate:

- sub-specialty training for 9 students and staff
- continuous medical education for 80 ophthalmologists annually (400 over the 5-year

period), and
- accreditation of 25 ophthalmologists as COECSA fellows.

5.2.1 Subspecialty

Twelve against the target of 9 faculty staff and students from the five participating universities successfully completed sub-specialty training, giving the achievement rate of 133%. The areas of specialisation included Glaucoma, Oculopastics, Ocular oncology, Orbit, Phacoemulsification, Paediatric Ophthalmology, Community Eye Health and Epidemiology and Biostatistics. The participants were comprised of 9 males and 3 females from MUK (3), MUST (2) and UON (7) universities. Tanzania (MUHAS, KCMC) was not represented in sub-specialty training support available through the PQO due to capacity constraints the two institutions were experiencing at the time.

As a result of the PQO support, sub-specialised faculty capacity within the region has increased by twelve. Improved faculty capacity has caused similar effect on institutional capacity which was also strengthened. The increase in the number of trained sub-specialists has resulted in corresponding increase in the number and variety of specialist eye care services available in the region in addition to general ophthalmology.

Sub-specialty training benefits eye health service delivery as well as teaching of students. Better eye health outcomes for patients are achieved through improved knowledge and skills. The acquired knowledge and skills were being transferred to students and supporting eye health workforce supply and quality of training delivered.

The Faculty staff and students were invited to provide feedback about their sub-specialty training experience using an online survey. Eighty percent of the respondents perceived that they were satisfied with the administration of sub-specialty grant whilst 71% were satisfied with the selection criteria used and 69% felt the eligibility criteria was clear.

Eighty one percent of staff and 86% of students perceived that the quality of training offered by their ophthalmic teaching university has improved as a result of the PQO. The staff also reported that they improved their clinical knowledge (78%) and surgical skills (61%) as a result of the support provided by the PQO. Seventy eight percent of the staff indicated that they have changed their clinical practice as a result of the support provided by the PQO.

'My management and teaching of residents has definitely changed.' (Survey respondent)

'Care for my patients has improved with new skills acquired' (Survey respondent)

The capacity that has been built in the region reportedly matches international practice and standards. For example, retinoblastoma and small incision cataract surgery (SICS) reflect current best practice in developed countries. SICS is acknowledged as the most viable option for cataract surgery in resource-poor settings (Table 4).

Table 4: Best practice 2

Best practice 2: The small incision cataract and retinoblastoma surgery reflect current best practice in developed countries.

Due to strengthening of national and regional capacity, referral of complicated eye conditions to international institutions such as those in India has reduced. Inter-state and in some cases

intra-state referrals for specialist eye care have also reduced. In Uganda, referrals from MUST to MUK have reduced as a result of improved capacity at the former site whilst referrals from Uganda to eye care facilities at UON in Kenya have reduced. These improvements have positive financial, social and economic impact at individual and national level.

The knowledge and skills developed through sub-specialty training were being passed on to mid-level eye care workers and allied health professionals through Continuing Medical Education (CME); creating a multiplier effect. The internal and regional capacity developed by the PQO has led to a reduction in dependence on overseas-based experts with training programs being run by local eye health professionals.

In at least two instances, sub-specialist training was provided at overseas-based institutions despite the local and sending institution not having the necessary equipment for the trainees to use upon return. As a result, the two persons that trained overseas with support from the PQO were unable to practice and refine the newly acquired skills after they returned to their countries and the sending institution. This highlights the need to avoid training when the necessary facilities including equipment are not available or unlikely to become available in the short term. It also underscores the need for a clear sub-specialty strategy.

Consultations with various stakeholders showed that there was need to fully involve universities in the selection process for Faculty members wishing to sub-specialise in order to enhance transparency and to ensure that the support was properly targeted. Additionally, it was suggested that the selection criteria needed to be made more explicit to all stakeholders. This comment is consistent with the low rating (69%) given above for clarity of eligibility criteria. It was felt that advertisement alone was not sufficient. The comments are relevant and require the consideration of COECSA taking into account the problem of poor synchronisation of training and availability of facilities discussed above.

'Openness and equal notification of the funds /opportunities to all…' (Survey respondent)

'….available opportunities should be communicated openly to members through their Chapter associations.' (Survey respondent)

5.1.3 Continuing medical education

One hundred and forty four out of the targeted 400 ophthalmologists participated in continuing medical education (CME) activities organised by COECSA through its country Chapters. This represents 36% achievement.

Participation in the CMEs was found to be empowering. It facilitated personal and professional development through sharing of new concepts, research evidence and best practice in eye health. CME's facilitated the development of communities of practice and re-invigorated the country Chapters of COECSA suggesting that any future replication of the CME grant might be channelled through the COECSA Chapters.

Empowering strategy/activity 2: *CMEs promote ongoing personal and professional development.*

5.1.4 Linkages

The target under this sub-heading was for the PQO to facilitate the establishment of links between the five participating universities and similar institutions in the northern hemisphere.

This objective has been achieved. The PQO facilitated the development of new and in some cases strengthened existing links between the five universities and their partners in the northern hemisphere. UON is paired with University of Munich in Germany whilst KCMC is linked with the University Hospital, Birmingham University (UK) and MUHAS has connections to St Thomas Hospital (UK) and the University of Münster (Germany). MUK is linked with the Royal Free Hospital (UK) and MUST is partnered with Bristol University and the National Health Trust (UK).

The linkages have been beneficial in terms of capacity improvements. Through the partnerships, the universities have been able to benefit from exchange visits conducted to the United Kingdom and from donations of diagnostic and surgical equipment provided by the overseas-based partners. The skills developed and the equipment donated have helped to enhance provision of quality eye health services.

COECSA is linked with the Royal College of Ophthalmology (RCO) in the UK. The link has been useful in terms of knowledge and skills transfer. Through the staff exchange programme, the RCO was able to provide assistance with Training of Trainers who were later used to develop the harmonised curriculum for ophthalmologists. The College also provided training in examination and assessment methods. This resulted in three (MUHAS, MUST and UON) of the five universities transitioning from the long and short cases and essay type examination methods to the Objective Structured Clinical Examinations (OSCEs), Multiple Choice Question (MCQ) examination methods and Workplace-based Assessments which represent best practice in the field (Table5).

Table 5; Best practice 3

Best practice 3: The adoption of the OSCEs and MCQ examination methods and Workplace-based assessment represent current best practice.

Challenges were still being experienced in relation to the introduction of OSCEs. Some of the training institutions were finding it difficult to achieve at least 4-5 stations required to set up effective OSCEs due to limited space and shortage of requisite equipment.

5.1.5 COECSA Fellowship

The funding proposal had envisaged that a Fellowship Programme would be established and at least 25 ophthalmologists would attain COECSA Fellowship by 31 December 2013. The Fellowship Programme was established although recognition and accreditation with the respective national Medical Councils was yet to be fully achieved.

Twenty eight ophthalmologists had registered as COECSA Fellows by the target date giving a 112% achievement rate. The Fellows consisted of 18 males and 10 females from Kenya (20), Tanzania (4) and Uganda (4).

The COECSA Fellowship confers recognition as an ophthalmologist of high professional standing. It represents a symbol that the holder has met the requirements for admission to COECSA Fellowship. The challenge for COECSA would be to ensure that the Fellowship remains competitive within the region and beyond it.

5.3 Strengthening operational capacity

5.3.1 Harmonised curriculum

COECSA successfully coordinated the development and approval of the curriculum for the study of the Master of Medicine (Ophthalmology) (M. Med.) degree. However, technical considerations including the different policies used by each university have necessitated that the standardisation of the M. Med. (Ophthalmology) curriculum across the participating universities was not feasible. As a result, the universities have opted for harmonisation which entails each university adopting the agreed core components of the common curriculum. This process was still ongoing and had not been achieved for all the universities at the time of the evaluation.

Effectively, the harmonised curriculum will enable the ophthalmology qualification to be recognised across the region irrespective of where it was obtained. It will also mean that the graduands can seek employment in any country within the region. This is seen as being consistent with the regional integration thrust being pursued in East Africa.

The harmonisation of curriculum is perceived as breaking new ground in the region although it is common educational practice internationally (Eriksen, Beavis et al. 2012) (Table6).

Table 6: Best practice 4

Best practice 4: Harmonisation of curricula for the M. Med. (Ophthalmology) degree is innovative and represents best practice.

5.3.2 Improved student intake

5.3.2.1 Scholarships

Through the scholarship programme established by the PQO, 59 students against the target of 50 were enabled to study for and attain the (M. Med. Ophthalmology) degree; giving the achievement rate of 118%. Male (30) and female (29) students were well represented in the scholarships which had a total value of €163,542.26.

Two types of scholarship support were available: full scholarship or partial scholarship. The full scholarship covered costs of tuition, living allowances, books and diagnostic equipment whilst the partial scholarship involved the provision of books and basic diagnostic equipment.

Table 7and Table 8 below give the breakdown of the number of students that benefited from the scholarship support and the value of the scholarships, respectively (Table7 and Table 8).

Table 7: Breakdown of students who received scholarship support

Institution	Number of students supported			
	Female	**Male**	**Total**	**%**
KCMC	7	8	15	25%
MUST	4	-	4	7%
MUK	1	2	3	5%
MUHAS	3	7	10	17%
UON	14	13	27	46%
Total	**29**	**30**	**59**	
Source: COECSA records				

Table 8: Value of scholarships

Institution	Total grants awarded	%
KCMC	€39,177.19	24%
MUST	€36,067.20	22%
MUK	€43,561.78	27%
MUHAS	€14,898.53	9%
UON	€29,837.56	18%
Total amount disbursed	**€163,542.26**	
Source: COECSA records		

5.3.2.2 Increased admissions

According to the PQO logframe, student intake at the five ophthalmic teaching universities was expected to have increased by 50% by the time the PQO finished in December 2013. Overall, this target has been achieved. The actual admissions to the M. Med. (Ophthalmology) degree programme have increased steadily since 2009 when the PQO started although much work still needs to be done (Table 9).

Table 9: Yearly intake of students to M.Med (Ophthalmology) degree

Institution	2007	2008	2009	2010	2011	2012	2013
UON	7	10	10	10	12	12	14
MUHAS	0	2	3	2	4	2	3
KCMC	2	2	4	5	4	4	4
MUST	1	1	1	3	1	1	1
MUK	0	0	2	1	1	2	3

As a result of the scholarship support, interest in the study of ophthalmology has increased. Student retention has also improved across all the participating universities due to guaranteed availability of financial support. This emphasises further the importance of the scholarship scheme since lack of funding was mentioned as being one of the reasons for low uptake of the health discipline.

'I would not have started the residency program without the ….support' (Interview participant)

Through the scholarship programme, the PQO has positively affected the HReH in the region with the existing numbers set to increase by 59. The ophthalmologists who have since graduated from the universities have added to the existing HReH. The graduates have either been deployed in the government service or have been retained by the training institutions as lecturers.

The students reported that they found the diagnostic eye equipment that was provided as part of the scholarship package to be empowering. They did not have to share the equipment and books which they could now keep as personal assets. This meant that students were able to develop surgical skills and confidence faster than previously. Provision of basic diagnostic equipment can be replicated as part of the scholarship package.

'There is no longer any competition for equipment.' (Interview participant)

*'The equipment and books aided my preparation in final days of residency and I still use them as lecturer.' (*Interview participant)

Empowering strategy/activity 3: *The provision of diagnostic eye equipment to students is important for students' learning and practice.*

Of the students that participated in the electronic survey, 89% reported that the support that they received was relevant to their training needs and 88% felt that they were well prepared to practice comprehensive ophthalmology after their residency training. Eighty three percent of the students perceived that they improved their clinical knowledge and surgical skills whilst 73% reported that they have changed their clinical practice as a result of the support provided by the PQO. The students indicated that that they were well prepared for management of cataract (100%), external disease and cornea (88%), ocular trauma (64%) and glaucoma (56%) as a result of the PQO. This is relevant considering that cataract and glaucoma are prevalent in the region and constitute a major cause of the disease burden of blindness and low vision.

Eighty nine percent of the students reported that they were satisfied with the selection process adopted for their scholarship whilst 75% indicated that the eligibility criteria used for the scholarship scheme was clear. Seventy four percent of students perceived that they were satisfied with the administration of their scholarship although they mentioned during the interviews that payment of living allowances by COECSA was often late with delays of 3-4 weeks being frequently mentioned. The uncertainty of financial support caused anxious and stressful moments for students.

5.3.3 Web-based Fellowship package

The PQO project design included provision for the establishment of a Web-based Fellowship training package to cater for the ongoing professional development needs of ophthalmologists deployed in rural areas. The Fellowship package has been developed and can be accessed from the E-Learning/M-Learning platform of the COECSA website. Besides this resource, there were no other resources to support the continuing professional education needs of ophthalmologists in rural areas.

The platform would be more useful as a resource portal if the resources were diversified to cater for the continuing education needs of other eye health cadres who now come under the umbrella of COECSA. The provision of links to eye health resources and best practice in clinical and surgical eye health practice as well as the Web-sites of international organisations that offer free access to resources on eye health would also benefit the continuing professional education needs of eye health professionals in resource poor settings. The proposed development would be consistent with current international practice of using Internet- based resources to support the continuing professional development needs of health professionals in rural areas.

5.4 Enhanced research capacity

5.4.1 Research training

Ninety three against the target of 50 university staff and students participated in training on research methods, proposal writing and writing for publication. The achievement rate was 186%. Of the staff and students who completed research training, 70 out of the target of 50 were involved in various research studies, giving the achievement rate of 140%.

In responses posted on an electronic survey, 65% of staff and 72% of students responded that research capacity at their ophthalmic teaching university has improved. Seventy one percent of the staff reported that they have improved their research skills and 63% felt that they have improved their writing for publication skills.

*'……. assisted in getting me started on my own research work' (*Interview participant)

'….enhanced my research skills, particularly in qualitative research' (Survey respondent)

Both students and staff found the training in research methods to be empowering. As a result of the training, positive changes have been reported in terms of development of research culture among both lecturers and students. Research activity in areas relevant to the region has increased as evidenced by the high number of staff and students that reported they have become engaged in research studies. This should add to the evidence base on eye health in a region. Capacity to provide training on research methods exists within COECSA and its membership. This suggests that COECSA would be best suited to support activities to replicate research training.

Empowering strategy/activity 4*: The provision of training in research methodology is important for promoting research culture and research activity.*

5.4.2 Research studies

The PQO logframe anticipated that 9 research projects would have been conducted and the results disseminated and used to plan at least two eye care programmes by the end of December 2013. By the end of the project period, a total of 14 research projects had been undertaken. The achievement rate was 156%. The studies are listed in Annex 4 below.

The dissemination of the evidence from the research studies has been slow. There have been no research publications to date although it was reported that one manuscript had been submitted for publication with the African Journal of Health Sciences.

The evidence from the diabetic retinopathy study in Tanzania was being used to modify practice in the local diabetic clinic and to screen for diabetes. Similarly, the evidence from the study on barriers to uptake of ophthalmology was being shared across the five participating universities. However, the evaluation observed that not much knowledge exchange had occurred outside the presentations made at workshops, CPD forums and annual conferences organised by COECSA.

The participants of interviews mentioned that COECSA lacks a clear research strategy that should inform sponsored research, specify the conditions under which it is undertaken and the obligation to publish or share evidence. It was suggested that the research strategy should identify the research priorities that mirror the research needs of the region with the researchers fitting their studies within the identified structure. Based on these comments, COECSA might find the WHO guidance on health research useful. The international body identifies the focal areas of health research needed to scale up the delivery of health services as financial and human resources, health service delivery and governance[21](WHO 2009).

[21]WHO (2009) Scaling up research and learning for health systems: now is the time. Available: http://www.who.int/rpc/publications/scaling_up_research

Sightsavers

5.5 Increased utilisation of eye care services

The PQO logframe envisaged that 300 outreach programmes would be carried out during the life of the project and that 15,000 patients would be examined and 6,000 eye surgeries performed. As at 31 December 2013, 273 outreach programmes had been undertaken accounting for 40,542 patient examinations and 6,077 eye surgeries. The figures show that achievement under outreach was mixed. The patient examination and eye surgeries attained 270% and 101% achievement respectively whilst the outreach performance rate of 91% was below the set target.

The failure to achieve the target outreach programmes was explained differently by different stakeholders. Whilst some stakeholders perceived that there was a capacity problem, others felt that accessing the outreach funds was difficult and others, still, mentioned that they had become aware of the facility when it was already too late. Yet another group felt that outreach had never been their priority even though they were aware about the existence of the set targets that needed to be achieved. Suffice it to mention, part of the funds earmarked for outreach were transferred to other budget items. Whatever the reasons, this evaluation considers this a missed opportunity.

Outreach programmes are important for a number of reasons. Firstly, they help to bring eye health services close to the people, improve access, utilisation and coverage of basic eye care services, especially those in hard to reach areas and vulnerable groups. Secondly, they enhance the effectiveness of specialist services and facilitate integration of eye care services into primary health care. Thirdly, outreach is important for inter professional learning. It offers opportunity for exchange of knowledge with other health professionals including ophthalmologists, students, nurses and allied health workers. Fourthly the outreach programmes provide students with excellent opportunities for hands-on clinical and surgical skills development under supervision. Throughout the in-country field visits, a common thread linking discussions with students was their narration of the outreach programme experience; how exposure to many patients and diversity of eye conditions contributed to the development of a variety of skills including examination and diagnostic skills as well as counselling, communication, decision-making and organisational skills. The opportunity to work under difficult environments with minimal resources reportedly helped to prepare the students for future practice.

*'……. lots of benefits at outreach…allowed to be ourselves…gained a lot of practice….more relaxed….helps confidence in patient management and surgery.' (*Interview participant)

'……you learn more than you would in a month' (Interview participant)

Eye health service providers of all categories and students reported that they found the outreach programmes empowering in terms of skills development, professional learning and improved working conditions and enhanced staff morale. Outreach programmes could be replicated through the training institutions working collaboratively with the respective health departments.

***Empowering strategy/activity 5**: Outreach programmes provide students with excellent opportunities to develop clinical and surgical skills.*

Access and utilisation of eye care services has increased. For instance, the information collected during field visits showed that the number of cataract surgeries performed by the

eye unit at MUST increased from 0 to 10 per month whilst the number of new cases presenting at the static clinic increased from 0 to 1700 and in-patient admissions increased from 0 to 57 over the same period. At UON, oculoplastic surgeries had increased from zero to 4 each week.

Eighty one percent of staff who responded to the evaluation survey indicated that the provision of clinical services at their ophthalmic teaching university has improved and 75% felt that the provision of surgical services has been enhanced (75%). Eighty percent of students completing the secondary survey responded that clinical services provided by their ophthalmic teaching university have improved.

This evaluation established that overall the communities served by outreach eye care services were happy with the service being provided and the actual recipients of the services were satisfied with the quality of support that was provided. This finding is consistent with the results of the patient satisfaction survey conducted by COECSA in December 2013 which showed that 80% of respondents expressed satisfaction with the outreach service operated in various locations across the region. The satisfaction level matches the target of 80% identified in the PQO logframe.

5.5.1 Screening and referral system

It had been envisaged that the PQO would establish a common screening and referral system. This activity was dropped in favour of using the existing system used by respective governments. The decision makes sense as it avoids duplication of effort and is consistent with the principles of alignment and integration.

5.5.2 Eye health service awareness

Awareness and knowledge about eye health have improved for people in rural and urban areas in which the PQO was implemented. This was achieved through the awareness and education activities spearheaded by the PQO in collaboration with other agencies. Eye health information has been provided through outreach clinics, commemorative annual events such as World Sight Day and World Glaucoma Week as well as through radio talk shows, banners, T-shirts and pamphlets.

As a result of the awareness campaigns, eye health has reportedly become more visible. Anecdotal evidence showed that the demand for eye care services has increased and more people were now able to access eye care services as a result of the enhanced awareness and knowledge. The number of referrals from primary and secondary health facilities to tertiary hospitals has increased. Static and outreach clinics have become busier, more patients were being screened, more referrals actioned and more surgery being performed. Waiting lists for advanced surgery have been reduced. Regrettably, these achievements, as with most other service delivery outcomes discussed in this report, could not be substantiated as the before and after data was not available.

5.5.3 Advocacy

It was a condition of the PQO that specific attention would be given to advocacy with the main thrust being resource mobilisation in the areas of human resources for eye health, infrastructure provision and expansion of eye care services to under-served communities. Apart from two policy briefs there was no evidence to show that advocacy was systematically pursued and monitored. Utilisation of the PQO resources set aside for advocacy would have been better targeted had COECSA developed and implemented an eye health advocacy action framework that focused on structural issues such as eye health policy (legislation, Conditions of Service), financing (availability and distribution of funds for eye health),

partnerships (public-private, formal-informal), education (standardisation of training, capacity issues at training institutions) and leadership (identification of human resources for eye health champions and advocates)[22](World Health Organisation 2012). The development of an eye health advocacy strategy was one of the recommendations of the mid-term review.

5.6 Challenges to eye care service delivery

The barriers to access to eye health services include long distances to eye care centres, cost of transport, lack of knowledge about the available services, lack of trust in outcome (fear) and cultural and social barriers. The other impediments were identified as shortage of basic consumables for eye health, lack of skilled staff, cost of technology, unaffordable cost of drugs and late help-seeking.

The PQO addressed most of these challenges. Outreach programmes were used to bring eye health services closer to where people live. Similarly, outreach was used to ameliorate the problem of transport and to ensure that shortage of consumables was resolved. The awareness and education campaigns addressed the knowledge, cultural and social barriers as well as late help-seeking. The training of eye health workers and provision of equipment helped to reduce the barriers relating to lack of skilled staff and cost of technology respectively.

The effectiveness of efforts to reduce poverty through the provision of quality eye care services is likely to be affected by two global phenomena: the health transition and climate change which planners of human resources for eye health (HReH) programmes and eye health service delivery would need to consider.

The health or epidemiological transition refers to changes in disease patterns from infectious to chronic diseases as a result of advances in healthcare and medicines and lifestyles. Improvements in public health and health care lead to reduction in fertility and infant mortality rates while increasing average life expectancy. Improved life expectancy and lifestyle-related chronic diseases will result in increases in age-related and diet related eye conditions including macular degeneration, cataract, diabetic retinopathy, and glaucoma. For instance, it is estimated that by 2019, 84% of all visual impairment will be among those aged 50 years or more[23].(World Health Organization 2013)

Climate change in sub-Saharan Africa is expected to be associated with frequent drought periods and food shortages leading to poverty and nutrition problems especially among the vulnerable groups. Poverty and poor nutrition are linked with blindness and low vision. The hotter and drier weather conditions would affect vision. For instance, it was reported during the evaluation that in some rural areas of Uganda which were becoming increasingly hotter and drier, the prevalence and incidence of cataract in young persons living in those areas was increasing.

The growing burden of eye diseases due to age, lifestyle and nutrition-related factors associated with the health transition and climate change would suggest that training programmes and curriculum for HReH and eye health service delivery in the region are adequately tailored to respond to the emerging challenge.

[22]WHO (2012) Human resources for Health: Action framework for the Western Pacific Region (2011-2015) Available: http://www.capacityproject.org/framework/

[23]WHO (2012) Universal eye health: a global action plan 2014-2019

6 EFFICIENCY

Efficiency	*Rating:* Satisfactory: 

Efficiency assesses the relationship between the programme inputs and outputs. It provides a measure of how well a programme was implemented relative to the outputs delivered. Efficiency assists to determine if inputs were wasted or not used or whether the outputs could have been achieved with fewer inputs or in a shorter time or with better quality. Inputs, also known as means, are physical and non-physical resources which can be human, financial or material resources used to carry out planned activities and manage a project. Any shortfalls in terms of quantity, quality and appropriateness in the means can threaten the project activities and have a ripple effect on the attainment of the project outputs and outcomes.

This Section addresses Evaluation Objectives (1) and (2).It reviews the arrangements for project management and assesses the provision and utilisation of the project inputs

6.1 Project inputs

For the purpose of this evaluation, inputs are understood to refer to human, financial and material resources provided to support the implementation of project activities. This description of inputs, including project management, will be used to report on achievements in this area.

6.1.1 Project management

The responsibility for the implementation of the PQO was delegated to the College of Ophthalmology of Eastern, Central and Southern Africa (COECSA) formerly College of Ophthalmologists of Eastern Africa (EACO) on the strength of a Memorandum of Understanding (MOU) signed with the contract holders, Sightsavers in 2009. Under the arrangement, Sightsavers retained its contractual obligation to the funders, the European Union (EU) and maintained close oversight on the project. Through its regional office for Eastern, Central and Southern Africa in Nairobi, Sightsavers assumed responsibility for the overall management of the project including contract management, planning, monitoring, and coordination and reporting. The role included coordination of procurement which was centralised in the United Kingdom.

As the Implementing Agency for the project, COECSA, through its Secretariat, assumed the stewardship of the PQO. The College became responsible for the day to day implementation, management and coordination of the project. The virtual college was also responsible for financial management.

COECSA as represented by its President and the Acting Programme Manager expressed great appreciation for the support provided by the European Union and to Sightsavers for providing ongoing support to the College.

Overall, COECSA provided good stewardship of the PQO. The vast majority of the planned activities were realised. Disbursement of project funds was good and financial management also good. The PQO achieved a significant level of cost-effectiveness considering the intervention was complex and implemented across several sites in geographically disparate locations. This dynamic created challenges for project implementation and coordination.

The responsibility for the implementation of the core activities of the PQO was delegated to the five tertiary institutions. The functions included provision of post-graduate training in ophthalmology, subspecialty and continuing medical education, provision of eye care services, research and provision of training infrastructure and equipment. Generally, the arrangement worked well. However, the activities linked with construction of physical infrastructure and procurement of eye equipment tested the project management capacity of the ophthalmic teaching units. The weaknesses were manifested through inefficiencies experienced with project procurement across all the institutions and also with supervision of construction at MUST.

6.1.2 Human resources

Recruitment to crucial project management positions at COECSA was affected by high attrition and ensuing delays in recruitment. Following a false start caused by the initial Programme Manager resigning within weeks of recruitment, staff joined the project in July 2009; six months after the PQO had started. The staff attrition was to continue for the duration of the project. For instance, the position of Programme Manager changed hands four times in five years. The Programme Officer position underwent similar changes. The frequent staff changes were blamed on weak Governance and Human Resource Management policies and, in at least one instance, failure to meet the COECSA performance expectations.

At the time of the evaluation, the Programme Manager position was filled in an acting capacity while the Programme Officer post was still vacant. Apparently, the Acting appointment was influenced by the COECSA decision to ensure financial flexibility while funding remains uncertain.

As a result of the challenges faced with staff recruitment and retention, the PQO activities commenced late whilst follow up of the ongoing activities was affected. The changes also affected project strategic planning which suffered as a result of the void created at the top levels of the organisation.

To its credit, COECSA was able to implement planned activities within the time approved for the PQO. This was achieved through the backstopping support provided by Sightsavers on at least two occasions.

To an extent the decision to defer the recruitment of a substantive Programme Manager makes sense. However, it is argued that the staffing policy has a downside in that it can lead to a lack of professional continuity for COECSA activities, a loss of institutional memory, and drop in staff morale. This evaluation posits that it would make greater sense to recruit a substantive Programme Manager with clear performance targets including fundraising goals that can be monitored.

6.1.3 Financial inputs and control

The transfer of funds from the European Union and the consortium of funding agencies was good. Most of the expenditure incurred on the project was as originally planned. Addenda 1 and 2 signed on 8 January 2013 and 29 July 2013 respectively gave formal approval for re-allocation of funds with the major movements occurring under Upgrading of outpatient wards and Laboratories €211,642 and Ophthalmology student's support €196,650 and Provision for Contingency €134,469. The other notable movements included transfers of funds from the Outreach allocation. The adjustments mostly went towards the additional costs of constructing and equipping the new eye care facilities at MUST and UON which over-spent

on their original allocations(College of Ophthalmology of East Central and Southern Africa 2014).

According to the funding proposal and budget approved for the PQO, each of the participating universities was earmarked to receive an equal share of available funding with the funded components including physical infrastructure being identical and receiving equal financial allocations. However, as the Table 10 below will show the equality ideal was not achieved. A comparison of actual expenditure incurred on the PQO output areas shows that there is marked difference in the expenditure patterns across the key output areas. For instance, 70% of total expenditure on all the key output areas was shared between MUST and UON whilst the same universities took up 65% of the financial resources spent on equipment.

The PQO experienced significant scope creep on the physical infrastructure component. The original funding for construction was intended to cover 'upgrading of outpatients wards and laboratory at the four eye teaching units' for which €192,000 was authorised against each of the four units. However, this was changed to new construction after the project was approved although the budget allocation remained unchanged. In theory, the new construction work was to fit within the budget originally approved for upgrading of existing facilities. The reality was that costs could not be kept within the original allocation leading to inefficiencies being experienced. For example, physical infrastructure provision at MUST and UON cost €455,702.21 and €303,797.50 respectively. This was nearly twice the original budget indicating that construction at the two sites was both under-budgeted and overspent (Table 10).

Between them, the newly constructed eye units at MUST and UON consumed 65% of the financial resources set aside for procurement of equipment. MUST was overspent by three times or 300% its original budget for equipment of €56,297 whilst the cost-overrun at UON was two and half times or 265% the original budget approved to the institution (Table 11).

The cost-overruns reflect weaknesses at the project planning, design and implementation stages. The inference would be that had construction been proceeded with at all the originally planned four (later five) sites, the level of the over expenditure on the PQO would have been much greater, In the worst case scenario, some of the output areas would not have been completed or started (Table 10).

Table 10: PQO Summary financial report by output area

PQO SUMMARY FINANCIAL REPORT BY OUTPUT AREA							
Output area	**Budget**	**Expenditure**	**Kenya**	**Uganda**		**Tanzania**	
			UON	**MUK**	**MUST**	**KCMC**	**MUHAS**
Equipment and supplies	455,570.00	518,705.31	149,635.68	78,613.45	186,594.23	74,926.68	28,935.27
Research - trainings, studies including related travel	323,802.90	236,812.91	80,516.39	80,516.39	48,381.13	23,885.00	38,195.63
Scholarships	249,105.00	263,184.28	79,029.56	48,992.57	48,448.12	60,551.70	26,162.33
Subspecialty training	44,922.40	50,349.88	29,370.74	12,587.47	8,391.66	-	-
Outreach	97,847.00	102,046.83	55,020.90	7,612.27	15,352.17	17,158.30	6,903.19
Up-grading of eye teaching units/Construction	793,860.74	759,499.71	303,797.50	-	455,702.21	-	-
Continuous medical education	32,400.00	45,294.54	24,219.90;	15,727.20		5,347.20	
Advocacy and visibility	54,827.27	49,477.66	-	-	-		
Total	**2,052,335.31**	**2,025,371.12**	**697,370.77**	**244,049.35**	**762,869.52**	**181,868.88**	**100,196.42**
Source: COECSA financial report 2013							

Table 11: Value of equipment provided by the PQO

Institution	**Value of equipment provided**	**%**
KCMC	€74,926.68	14%
MUST	€186,594.23	36%
MUK	€78,613.45	15%
MUHAS	€28,935.27	6%
UON	€149,635.68	29%
Total amount spent	€518,705.31	100%
Source: Adapted from COECSA records		

6.1.4 Material resources

Generally, the material resource inputs procured to support the activities of the PQO were of good quality. The procurements met both the EU and Sightsavers compliance requirements, especially those relating to the rules on nationality and origin.

The centralised electronic procurement system used by Sightsavers was adopted for the PQO. The procurement process involved a number of stages. The participating Universities initiated the procurement by placing orders which were checked and verified by COECSA and later the regional office of Sightsavers before being submitted to the Sightsavers Headquarters in the United Kingdom. The latter then sent the orders on to the respective

suppliers. Often, this process involved backwards and forward movement of the orders before they were finally placed with the suppliers.

Staff at the participating ophthalmic teaching universities reported that they found the procurement system complicated and time-consuming especially for the non-technical person. The staff also acknowledged that procurement was a specialised area that required people with requisite skills which most of them did not have. They mentioned that they could have done with the assistance of a technical person with project and contract management skills as well as being proficient in all aspects of procurement.

The consultations made during field visits found that procurement challenges were experienced across the entire project sites leading to inefficiencies in project management. Procurement delays of 6-7 months and in the worst case, two years (project vehicle) were experienced due to lengthy tender processes and the fact that most of the project inputs were sourced from overseas-based markets. For instance, diagnostic equipment for some of the students was delivered late at the end of their study program.

'…got diagnostic equipment very late towards the end of my residency…'(Interview participant)

Comments were made about the quality of some of the equipment provided by the project. In the main, the comments related to the supply of faulty, incomplete or incompatible equipment. Operating beds of inappropriate size were purchased at MUST, a batch of faulty ophthalmoscopes was provided to some of the students whilst microscopes with missing teaching arms were provided to MUK and KCMC.

The procurement inefficiencies impacted negatively on learning and teaching as well as delivery of quality eye health services. Suffice it to mention, the provision of diagnostic sets to students was intended to support the development of assessment and diagnostic skills. The implication was that the opportunity for students to learn and develop these skills was negatively affected whilst the delivery of better eye health services to patients was delayed.

6.1.5 Monitoring and reporting

Internal project monitoring was achieved through narrative progress and technical financial reporting. This aspect worked well; the agreed timelines and standards were met.

Narrative progress reporting was achieved using the templates provided by the European Union. However, the templates limit the content of the report to activity reporting at a time when the results-based orientation is being promoted as the framework for supporting the effectiveness of projects and programmes. As a result, the project did not systematically monitor the achievement of outcomes on on-going basis leading to loss of the opportunity to make informed strategic changes whilst the PQO was still under implementation.

External oversight on the PQO operations was provided through the Results-Oriented Monitoring (ROM) system used by the EU and mid-term review. Overall, the results of the ROM and mid-year review were equally positive.

Sightsavers

7 IMPACT

Impact	***Rating:* Highly satisfactory:** G

Impact assesses the wider effects of the project in terms of social, economic, technical, environmental changes on individuals, gender- and age-groups, communities and institutions. Impacts can be intended and unintended, positive and negative.

This Section addresses the Evaluation Objectives (1), (2) and (3).

The Section of this report dealing with relevance discusses in detail the problems associated with measurement of impact of the PQO. The problems relate to the OVIs identified at the OO level of PQO logframe which make objective assessment of the impact of the intervention very subjective, if not impossible. To overcome this shortfall, this evaluation used feedback from discussions with patients to draw inferences about the achievements of the PQO in this area.

Given the above weaknesses, there is opportunity for the impact of the PQO to be measured in terms of health achievements by measuring outcomes relating to the basic WHO eye health indicators: cataract surgical rate; cataract surgical coverage; and cataract backlog and to feed these into the blindness reporting system used in routine HMIS by the respective governments. Together with prevalence data, cataract surgical coverage can be useful in determining the impact of cataract interventions(World Health Organization 2003).

The PQO is making a positive impact on the lives of individual people and organisations within the East Africa region. The impact is being felt at various levels. The project is contributing positive health outcomes of ordinary people affected by blindness and low vision. It supported over 40,000 patient examinations and assisted 6,000 sight-saving eye surgeries through the outreach programmes conducted across the region.

Anecdotal evidence showed that the quality of life of the patients has improved. Children were able to resume education and become socially included in the education system. The evaluation heard evidence about a patient who was able to continue their undergraduate education and later postgraduate studies after successful cataract operation. The evaluation also heard stories from people who have resumed independent lives, successfully re-integrated in their societies and were actively engaged in agricultural activity for subsistence and income generation purposes. The achievements support the PQO objective of poverty reduction.

The project has helped to improve productivity at the five participating universities and to raise the profile of ophthalmology in the region. Interest in the study of ophthalmology has increased. This is demonstrated by the 50% increase in enrolments at the participating universities. More M. Med (Ophthalmology) students were graduating from the universities than before the inception of the PQO. In addition, student retention has improved.

As a result of the sub-specialty training supported by the PQO, specialised units have been established where none existed before. For example, dedicated paediatric ophthalmology, glaucoma and medical retina clinics have been established at MUK and UON as a result of improvements in institutional capacity caused by the PQO support.

The PQO has given COECSA greater visibility in the region and internationally. COECSA has become recognised and acknowledged as an authority on eye health by the ECSA Council of Health Ministers and international bodies such as the International Agency for the Prevention of Blindness (IAPB).It is also perceived as a success story by its stakeholders. This provides excellent opportunity for COECSA to push the eye health agenda as evidenced by the recent invitation by IAPB to participate in Human Resources policy formulation on behalf of the WHO. The final policy document is expected to influence HR policy in the region. COECSA was also appointed to the allocation committee for the Queen Elizabeth Diamond Jubilee Scholarship Fund.

The reputation and visibility of the Departments of Ophthalmology at the participating universities have improved. Due to improved training capacity, the universities are getting requests for admission and actually admitting M. Med (Ophthalmology) students from countries such as Botswana, Malawi and Zambia in Southern Africa, South Sudan in East Africa and Burundi, Democratic Republic of Congo (DRC) and Rwanda in Central Africa. The other countries are Ethiopia and Somalia in the Horn of Africa, Ghana and Sierra Leone in West Africa, Jordan in the Middle East and Peru in South America.

The scholarship scheme established under the PQO and administered by COECSA has had a multiplier effect. The regional NGOs working in eye health have built on this to establish a pooled scholarship facility under the management of COECSA. The pooled scholarship fund is administratively cost-effective and promotes transparency, harmonisation and standardisation of funding criteria and procedures. The contributors to the common basket include LFW, Sightsavers, Christian Blind Mission (CBM) and Fred Hollows Foundation (FHF). The others are ORBIS, Vision Mundi, Mary Knoll Fathers and Brothers and Lions Bavaria.

The growth in the number of organisations joining the pooled funding arrangement has been followed with a deliberate effort to harmonise the scholarships with the result that a standard cost plan has been established. However, the cost plan requires review and renegotiation with the donors and this evaluation suggests that the review process considers multi-year funding in order to establish funding certainty among the various stakeholders (Table.12).

Table 12: Best practice 5

Best practice 5: The establishment of a common 'basket' for scholarship funding is innovative and reflects potential best practice.

Apart from the pooled scholarship facility, other organisations have been able to build on the achievements of the PQO to establish programmes to deliver eye care services and other related support. For example, ORBIS International entered into a 3-year arrangement with COECSA to implement the Flying Eye Hospital (FEH) and the human resources for eye health strengthening initiatives in the region. ORBIS International is a not-for-profit non-governmental organisation dedicated to saving sight through the provision of flying eye hospital services. Apart from eye health service provision, the arrangement with COECSA will use the teaching and training capacity within ORBIS to improve sub-specialty expertise in the region. Eye health service delivery and strengthening of human resources for eye health formed part of the focal areas of the PQO.

The Seeing is Believing (SiB) project is another project that has built on the achievements of the PQO. The SiB is using the human resource capacity developed by the PQO to upgrade the skills of the midlevel eye cadres and to conduct eye health screening and examination in schools across the region. The SiB is a 4-year child health program that represents collaboration between Standard Chartered Bank and IAPB. The consortium implementing the SiB is led by CBM and includes other development partners working on eye health such as Sightsavers, FHF, OEU, Brien Holden Vision Institute (BHVI) and COECSA.

The local Chapters of COECSA have been strengthened and are more active running CPD programmes and activities nationally and regionally. The CPDs have become more regular and embrace all levels of eye care workers.

Training in the writing of evidence-based guidelines conducted by RCO has led to the development of clinical guidelines which include:

- Treatment Guidelines for retinoblastoma
- Treatment of Guidelines for Glaucoma (still a work in progress.
- Treatment Guidelines for Trachoma
- Treatment Guidelines for Oncology

The developed clinical guidelines are evidence-based and set the standards for professional practice whilst taking into account the eye health needs and the resources available in the region. The achievement is perceived within the region as representing best practice (Table 13).

Table 13: Best practice 6

Best practice 6: The establishment of guidelines to standardise clinical practice represents best practice.

7.1 Unplanned positive changes

The unplanned positive changes include the recruitment of 4 new lecturers to Faculty at UON. This was in direct response to the improvements in institutional capacity facilitated by the PQO. This should translate into improved productivity of the institution in terms of training and eye health service delivery.

PQO indirectly contributed administrative and project management skills to COECSA and its country Chapters which have become re-invigorated as a result of the CPD activities. This suggests that COECSA and its constituent Chapters are better equipped to handle similar interventions in future.

Project management capacity of the Departments of Ophthalmology has been strengthened. The ophthalmic teaching universities will be able to use the skills to manage their projects or other interventions similar to the PQO.

The PQO is making an indirect positive impact on allied health professionals at tertiary, secondary and primary levels who are benefitting from the clinical and surgical knowledge and practice shared on-the-job with experts. CPDs have benefited and continue to benefit cadres working in eye health including ophthalmologists, ophthalmic clinical officers,

ophthalmic nurses, nurses and allied health workers. For instance, 100 midlevel cadres benefitted from the CPD seminars organised at KCMC. The workers also benefitted from research evidence generated by the PQO through participation in research dissemination workshops, conferences and forums.

COECSA has established the Young Ophthalmologists Forum for young and new-to-practice ophthalmologists. The networking forum will help participants to build leadership and networking skills as well as promote research and publication.

Building on the experience gained developing the common curriculum for Ophthalmologists; COECSA has developed the harmonised curriculum for Ophthalmic Clinical Officers (OCOs). This is expected to support cascading of training to the midlevel eye cadre and is seen as the natural and logical next step in the ongoing effort to build the capacity of eye care workers at the secondary and primary health care levels[24](College of Ophthalmology of East Central and Southern Africa 2013).

The evaluation learned that some INGOs working in eye health in the region intend to adopt and replicate some of the PQO components in other countries. In particular, curriculum harmonisation has attracted considerable interest and attention among the INGO community.

8 SUSTAINABILITY

Sustainability	***Rating:* Highly satisfactory*:*** 

Sustainability assesses the likelihood that benefits of the programme would continue after external funding has ceased and the factors linked with achievement of sustainability.

In this Section we address the Evaluation Objectives (1) and (3).

There are a number of activities that augur well for the sustainability of the achievements attributable to the PQO to date. Several sustainability elements were built into the project design at the planning stages. For example, the project is embedded within the existing structures of the participating universities and was implemented by them as the owners of the investments.

The PQO was from the outset intended not to create additional parallel structures. In addition, investment in physical infrastructure and equipment is expected to continue to offer benefits in a number of domains for the foreseeable future. The new infrastructure has improved each country's medium to long term capacity to prepare and train a quality eye health workforce. It also augments the capacity for ongoing professional development of HReH. Workforce investment is a capital investment.

Eye health in the regional areas is currently largely externally funded by donors through multi-lateral and bilateral arrangements rather than government. The proportion of the national budget that is allocated to the Ministries of Health in all the three countries is well below the 15% stipulated under the Abuja Agreement. For instance, the Ministry of Health in Uganda is allocated 8-9% of the national budget although the actual amount released would

[24]COECSA (2013) Curriculum for Diploma in Clinical Ophthalmology- Final Draft

be much lower than this figure. This means that the eye care sector in the region will continue to rely on external funding for the foreseeable future.

In each of the PQO countries, the government contribution largely comprises payment of salaries for eye health personnel, provision of basic facilities and some operational costs. Health services are provided free of charge in all public institutions across all the three countries in the region. However, option exists for hospitals to establish private wards for fee paying patients. The Departments of Ophthalmology that benefited under the PQO intend to leverage this facility in order to generate revenue to partially offset the cost of consumables and other operational costs. The additional financial resources are seen enhancing project sustainability, albeit on a very small scale.

The systems supporting eye health are not the same for the three countries involved in the project. Kenya and Tanzania operate decentralised systems of government. In Tanzania, the local authorities set aside funds for eye health whilst in Kenya opportunity exists to lobby the county governments to establish similar allocations. COECSA would be advised to lobby other governments in Kenya and Uganda to emulate the Tanzania example. The benefits would be that eye health services would be better funded and brought closer to the people.

Outreach activity is generally not adequately funded by the government. As a result the outreach activity seeded by the PQO had either stopped (Uganda) or was barely continuing with support from other donors. In addition, governments are unable to sustain the recurrent costs of medicines and other essential supplies resulting in unavailability of drugs and other items including those relating to eye health. This suggests that it would be crucial to maintain the synergistic links established with the INGOs in order to ensure that the funding gaps are filled.

International and local NGOs are very active in the provision of eye care in the PQO region. Each of the three participating countries has no less than nine NGOs working in eye health sector. The continued alignment of PQO supported initiatives with programmes and projects run by these organisations would assist in seeing the achievements of the PQO sustained.

The heavy reliance on donor funding does raise a note of caution and indicates a need for risk management strategies to be developed that mitigate negative impacts on future programmes in the event of a reduction in donor funding, for example a recurrence of a global financial or other major crisis. As an example, if the linkages that the universities established with institutions in the northern hemisphere under the Vision 2020 continue, there should be ongoing capacity building in terms of knowledge and skills transfer and provision of equipment.

Local ownership of the project is strong. This is exemplified by the early involvement of beneficiary institutions in planning of the project and the carriage of leading roles in the implementation of its various components.

Another sustainability characteristic is the PQO Training of Trainers programmes using support from the RCO. The skills gained by various health workers cascade to other workers generating a ripple effect across the health service.

Equipment maintenance and repair capacity in the region is still weak. This is seen threatening the sustainability of equipment supplied by PQO unless effort is made to address the challenge.

As regards scholarships, the demand side has grown and will need to be matched by sustained growth in the availability of scholarship funds. Continued scholarship support will be required to maintain the interest and to ensure continuous production of this category of eye health personnel. The challenges being faced by the governments in the region suggest that support for scholarship funding would continue to be provided by the NGO/INGO for the foreseeable future.

Going forward, COESCA would be wise to retain the focus on health systems strengthening since the global sustainable development agenda to be ushered in the post-MDG era is expected to emphasise this element alongside non-communicable diseases, universal health coverage, health of women and children and ageing[25](Russell, Swanson et al. 2014).

9 REPLICABILITY/SCALABILITY

Replication	***Rating:* Highly satisfactory:** G

The scalability/ replicability criterion examined the aspects of the programme that were suitable for replication. It also assessed the capacity of the relevant organisations and governments to support scale up

In this Section, we address Evaluation Objective (5) of the TOR.

The PQO experimented with a number of innovative strategies that arguably qualify as best practice that can be replicated or scaled up within the region and beyond it. The innovations are built around the harmonisation/coordination principles of the Paris Declaration and six building blocks for health systems strengthening. They include the consortium approach, the regional approach, scholarships, scholarship harmonisation, sub-specialty, equipment, research, harmonised curriculum and outreach and are described in greater detail below.

9.1 Consortium approach

The approach involved several NGOs coming together to present a joint proposal for funding. It is consistent with the principles of the Paris Declaration relating to donor coordination and harmonisation which is likely to appeal to donor organisations. It is cost-effective in terms of administration expenses and minimises duplication of effort while optimising coordination.

The consortium approach can be considered for replication at both national and regional level. Moreover, opportunities exist to build on the existing relationship between Sightsavers, Light for the World and COECSA to request joint funding of new interventions in eye health. The organisations demonstrated their capacity to meet agreed commitments and are presently active in the region.

9.2 Regional approach

The multi-country regional approach strengthens institutional and regional networks and is closely aligned with policies on regional integration and cooperation. It creates opportunities

[25]Russell, E., Swanson, R. C (2014) System thinking for the post-2015 agenda. The Lancet vol. 383

for exchange of information and collaboration among countries. The benefits are felt across a much wider target group and geographical area. The regional approach is appropriate for public health interventions that transcend national boundaries.

COECSA presents an excellent opportunity to coordinate multi-country approaches in the region. Strong political, social and economic cooperation blocs exist within the region. The synergies built as a result of these partnerships can be used to support new interventions in eye health that cut across national boundaries.

9.3 Scholarships

Ophthalmology as career path in the region is less likely to attract candidates compared with other medical sub-specialties. This is due to the perception that the benefits of obtaining additional qualification in ophthalmology as a sub-specialty were less significant in relation to other fields of medicine.

Scholarships provide an incentive to promote uptake of the health discipline and are a viable option to scale up human resources for eye health. Shortage of eye health personnel is sorely felt across all categories of eye health workers in the region. Continuation of the scholarship scheme for M. Med (Ophthalmology) degree studies is necessary in order that the interest in the study of ophthalmology that has been generated by the PQO is not lost. Many more ophthalmologists are still required in order to fill existing gaps and to strengthen the referral system.

COECSA has developed sufficient infrastructure and capacity to administer scholarships. The pooled funding arrangement for scholarships has proved to be administratively cost-effective.

During the field visits, it was mentioned that scholarship provision should be extended to include scale up of middle level eye care workers. It was reported that the training of middle level eye care workers- 'the backbone in eye health'-was a priority in Kenya, Tanzania and Uganda. Midlevel eye care workers help to reduce the costs of health care whilst making eye care accessible to many more people. The training of midlevel eye care workers is cost-effective and shorter and consistent with task-shifting approaches being used across the developing world. Task shifting is reputed for ameliorating workforce shortages and skill mix imbalances whilst securing similar patient outcomes at a significantly lower cost compared to physicians and other medical experts(Fulton, Scheffler et al. 2011).

The provision of scholarship support for training of midlevel eye care workers would represent natural and logical progression following the recent successful development of a harmonised curriculum for training of OCOs. It would complement the training given to ophthalmologists whilst strengthening skill-mix in eye health and extending access to eye services and enhancing primary health care to those most in need.

The existing health professions schools including Schools and Colleges of Health Sciences could be used to offer training of midlevel eye care workers. The data collected by this evaluation shows that gaps exist in the supply of Ophthalmic Clinical Officers and Cataract Surgeons across the region. The available data also shows that general shortage exists for the category of Ophthalmic Nurse although the situation in Uganda was not known.

A harmonised curriculum for the Diploma of Clinical Ophthalmology already exists, thanks to the PQO and the coordinative role performed by COECSA. The curriculum reportedly enjoys buy-in from various interest groups representing the midlevel cadres since it was developed with their active participation and support. This would suggest that adoption or adaption of the curriculum would be less likely to experience major challenges.

The continuation and extension of the scholarship scheme to cover extra categories of eye health worker would be critical in achieving the Vision 2020 goals.

9.4 Basket funding of scholarships

Pooled funds are consistent with coordination and harmonisation approaches. They minimise duplication, optimise resources and minimise risk. Synergies formed help to reduce transaction costs. COECSA has sufficient administrative capacity and infrastructure that can be used to support continuation or expansion of the basket funding arrangement.

9.5 Sub-specialty

Promotion of sub-specialty training is consistent with the need to continually build regional capacity and to reduce dependence on external expertise. Sub-specialisation has dual benefits: it improves practice and the quality of eye care service delivery and contributes improvements to teaching and learning. Scale up of sub-specialty in future would need to adopt a two-pronged approach that utilises the recently built capacity to deliver sub-specialty programmes within the region and retains the overseas-based training programmes where the regional capacity was not yet available or sufficient.

The former approach is perceived as being cost-effective and sustainable and likely to optimise benefits and deliver training that is relevant to the local context. Additionally, it would help to strengthen the Centres of Excellence concept. It was suggested during the consultations that this approach may also involve secondment of the overseas–based experts for short duration sub-specialty training at selected venues in the region. This would augment the local teaching faculty and promote sharing of ideas and research.

The overseas-based training is still required in order to build sub-specialty capacity not available in the region. This suggests that overseas-based sub-specialty training would need to be targeted in future.

9.6 Equipment

The provision of up-to-date and suitable equipment is inextricably linked to training of eye health personnel, sub-specialisation and eye health service delivery. The equipment provided by the PQO at the five training institutions was making significant contribution in these areas in terms of increasing training capacity of the institutions, increased utilisation of the eye health services and improved quality of the eye care services provided. Diagnostic and surgical equipment is required at training institutions as well as quaternary, tertiary and secondary levels of eye health care.

The provision of equipment would need to be linked with efforts to scale up training capacity and eye health service delivery. This is seen targeting the training institutions as well as secondary and tertiary eye health services in order to strengthen referral. Additionally, this

would need to be linked with activities to build repair and maintenance capacity in order to ensure the sustainability of the technology.

The infrastructure and capacity built within COECSA or other similar coordinative bodies could be used to support similar projects in future. COECSA performed reasonably well in this area despite the challenges faced with procurement of some of the equipment.

9.7 Research

Research is important to ensure that an evidence base exists for advocating for policy change. Research evidence is also needed to inform formulation of strategies and plans for health service delivery and to measure prevalence and incidence of disease and the outcomes of planning and policy implementation. Past research studies have not given sufficient attention in these areas. The gaps would need to be filled in order to strengthen health systems.

This evaluation has shown that research interest and capacity in the region are still growing and still require nurturing through continuation of funding for research training and actual research. However, to be effective the research effort needs to be guided by a clear structure that identifies the research themes and is established within and implemented through COECSA in order that national and regional priorities and needs are coordinated. The setting of the research agenda - including themes - should involve participation by all stakeholders including the government and NGOs representatives and not led by the academics alone.

Funds for replication /scaling up of research could be channelled through COECSA or other similar body. The organisation would issue calls for research proposals from the region covering agreed thematic areas on annual basis. In order to promote knowledge exchange, the conditions under which the grant is provided would include expectation that research evidence would be published.

9.8 Harmonisation of curriculum

The recent successful effort to harmonise the Ophthalmologists and Ophthalmic Clinical Officer curricula demonstrates the value of streamlining training effort by developing common standards. Harmonisation of curriculum for training of eye care workers can be replicated at national level or in other regions. The expertise that has been built by COECSA can be used to lead activities to harmonise curricula for various categories of eye health professionals.

9.9 Outreach

Scale up/ replication of outreach is important for taking eye health services to marginalised communities including women and children. It also caters as an important mechanism for teaching, clinical and surgical skills development and interprofessional learning. Outreach is costly in terms of transport costs, cost of consumables and subsistence costs and is generally under-funded by governments in the region. Replication of outreach programmes in future would need to make these cost items the core areas of support with the training institutions and relevant Departments of Health meeting the staff salaries and collaborating on actual delivery of outreach services.

'…. most important if we could get outreach support'. (Interview participant)

Sightsavers

10 COHERENCE/COORDINATION

Coherence/Coordination	*Rating:* Highly satisfactory: 

The coherence/ coordination criterion assessed complementarity of the programme objectives, design and strategies. It also assessed complementarity of the programme design with those of other sectoral interventions. The following questions were considered:

-Are the project objectives, approaches and design coherent and complimentary with each other?
-Has the project's design and implementation taken into account other sectoral interventions in the area?

This Section of the report addressed the Evaluation Objectives (1) and (2)

The logframe designed for the PQO is internally coherent despite some weak OVIs. There is clear link between the activities, outputs, the project purpose and the Overall Objective. The flexibility of the design allowed for changes to be made to the logframe in order to respond to operational issues that arose during project implementation.

The PQO contributed significantly to improving inter-agency and international cooperation. The multi-country, multi-stakeholder and multi-site as well as the consortium approaches adopted for the design of the PQO achieved a high level coordination and complementarity of the support provided by the EU and Sightsavers and those of other donors. This enhanced coherence with the EU and Sightsavers policies as well as global health policies and the eye health policies of governments and INGOS involved with the implementation of the PQO.

The regional project created excellent opportunities for donor and private sector coordination as reflected in the number of components implemented. Through the scholarship support, the PQO influenced the establishment of the cost-effective common basket for scholarship funding for HReH in the region. This is consistent with the donor harmonisation principle espoused in the Paris Declaration.

Synergies have been established between and among the INGOs working in eye health in the region. Through the synergistic links, the INGOs have been able to build on the experience gained in the implementation of the PQO to initiate new interventions including the SiB project funded by the Standard Chartered Bank Global and the ORBIS Flying Doctor Service.

As a result of the PQO, private/public partnership has been established between COECSA and the pharmaceutical industry in the region. The latter is sponsoring seminars, workshops and conferences organised by COECSA.

International linkage was achieved through the Vision 2020 links established between the northern and southern tertiary education institutions. The links were useful in developing training capacity of the institutions in the south.

At the national/regional level, coherence between the training institutions was strengthened. Linkage and coordination between and among the institutions has improved. The institutions

were sharing resources including examiners, training programs and information. Through the internship programmes, student exchange has been regularised. This was beneficial for students in terms of exposure to a different environment, peer learning and development of clinical and surgical skills. Individual and professional networks have been established at University and government level.

It was reported that there was variance in the strength of links established between the training institutions and the eye health units of the Ministry of Health. Linkage is important for sharing information on national eye health policy, student scholarships and deployment and recruitment of allied health and nursing staff which the training institutions rely on to provide eye care services.

The PQO project has integrated Human Rights and other cross cutting issues including the right to health, education, productive employment and a better standard and quality of life which are enshrined in the International Convention on the Rights of Persons with Disabilities and the Convention on Rights of the Child(United Nations 2006).

The implementation of the PQO relied heavily on the training institutions as the beneficiaries. Whilst there were benefits gained in terms of ownership and the likelihood the investments would be maintained, the involvement of the same institutions within COECSA decision-making body undermined impartiality of the decision process. This caused tensions which have endured throughout the implementation of the PQO and remain to this day. For example the decisions relating to allocation of funds between the participating Universities and the handling of the MUHAS project have been mired in controversy.

11 LESSONS LEARNED

Lessons learned are used to share and use knowledge from experience that should be repeated in order to improve performance or avoided in order to minimise risk. They are usually recorded at any point during the project lifecycle or near project completion and cater as an effective project management tool. Lessons learned help to answer the questions: What worked well? What did not work so well?

This Section of the report addressed the Evaluation Objectives (1), (2) and (3).

For the purpose of this evaluation, the things that worked well or did not work well during the implementation of the PQO were identified through individual and group discussions with the project partners at the project sites. The de-briefing session held to present the preliminary findings of the evaluation was also used to identify the lessons learned.

Harmonisation of curriculum is consistent with regional integration principles.
Harmonisation of the curriculum is consistent with regional integration principles and facilitates recognition of qualifications and movement of labour across national boundaries. Harmonisation of core components of a curriculum helps to reduce disparity in ophthalmic training and to set up minimum standards of good practice acceptable in the region.

Considering the growing attention given to strengthening the eye health services at district and regional/provincial level, the prioritisation of provision of training for midlevel eye care workers and the renewed focus of primary health care; any future effort to develop harmonised curriculum for different categories of eye health worker would benefit from the expertise available within COECSA.

A strong advocacy focus is important for resource mobilisation.
The evidence collected by this evaluation showed that the resources allocated to advocacy could have been used to achieve better results beyond awareness and education created through participation in commemorative activities linked with World Glaucoma Week, printing of banners and pamphlets. The development of a joint advocacy strategy that focuses on themes including policy, financial mobilisation, partnerships, training and institutional capacity as well as leadership is what COECSA needs to in order to put eye health issues on the table.

Strong partnerships are built on transparency and equal treatment of partners otherwise the collaborative spirit is damaged.
There was general perception especially among evaluation participants in Tanzania and to lesser extent Uganda that information sharing and decision making within COECSA may not have been transparent and inclusive. There was also sentiment expressed that members within the partnership of the five universities were given unequal treatment. Going forward, COECSA would need to manage relationships with its constituents and be seen to be exercising fair and unbiased treatment of all parties it represents.

Effective procurement relies on clear and accurate specifications and BOQ and appropriate expertise.
The evidence collected by the evaluation showed that procurement of project inputs experienced some challenges that affected the efficiency of the project. The challenges were linked with inadequate project management capacity and insufficient procurement and contract management expertise especially on the part of the ophthalmic teaching universities. Future projects may need to consider creating a central position at COECSA that would be dedicated to provision of technical support to project sites.

Having clear parameters for funding of research ensures that regional needs and priorities are met and research evidence becomes widely accessible.
Whilst useful research studies were supported by the PQO, comments have been made regarding targeting of the research, the perception that the research was driven by personal rather than regional interest and the slow progress achieved towards publication of the research evidence generated. Clearly, a research strategy that reflects the needs and priorities of the region from the perspective of COECSA and its partners within the government and non-government sectors would be required. The research strategy might focus on health systems strengthening through evidence on eye health service delivery, eye health service resourcing including financial and human resources and governance rather than medical/clinical research. COECSA should investigate the possibility of establishing a central repository for research evidence from studies sponsored by the College and its partners in order to improve access and knowledge exchange by its constituents across the region.

Stakeholder involvement and commitment during project formulation and design stages is essential in order to achieve smooth project implementation.
The issues with land acquisition and planning regulations that caused the construction projects at MUK and MUHAS to be abandoned have demonstrated the importance of extensive consultation and thorough risk assessment and management. Inclusive consultation approaches consider the views of would-be beneficiaries and those likely to be negatively affected by the planned project. The aim of the consultations would be to secure the commitment of all affected parties. Risk assessment identifies potential risks over the

whole project life cycle with particular emphasis being given to feasibility and construction stages.

The provision of subspecialty training to staff should be tied to availability of equipment otherwise the new skills will not be practiced.
The evaluation heard that sub-specialty training was provided at overseas-based institutions despite the local and sending institution not having the necessary equipment for the trainees to use upon return to their country and university. This proved to be inefficient use of resources as the newly acquired skills were not being practiced and utilised. The selection of candidates for sub-specialty training should involve active participation of the training institutions and employer organisations in order to link training to availability of resources with which to practise.

Budgeting for construction work relies on effective risk estimation
The construction work at MUST and UON cost nearly twice the original budget and could only be successfully completed courtesy of the transfers from other output areas including extra funds from physical infrastructure components at MUK and MUHAS. Whilst it is acknowledged that budgeting for complex infrastructure projects is problematic and fraught with error, it is argued that the method used to estimate the construction element of the PQO was built around weak assessment of risks and opportunities. It did not sufficiently take into account the uncertainty of the scope due to the peculiar needs, expectations and circumstances of each of the participating ophthalmic teaching universities.

The budgeting processes followed for multi-country and multi-site projects should recognise the need for site-specific allocations determined 'a priori' based on the specific requirements and targets in order to avoid cost-overrun and enhance transparency and accountability.

Multi-country, multi-site and multi-component projects require clear identification of outputs and performance targets to be attained by each geographical site in order to promote accountability, strengthen monitoring of performance and avoid scope drift.
This evaluation has found that although the approved key output areas of the PQO were identical across all the five geographical sites and received equal financial allocation, there was significant movement of funds between the sites due to scope drift and absence of specific targets to be achieved for each site. This resulted in skewed distribution of the PQO funds with some sites getting much more funds than others with equal or greater need. In order to avoid these problems and promote site specific monitoring and accountability whilst reducing scope drift, it is suggested that the design of multi country, multi-site and multi-component projects in future incorporates clear definition of the outputs and performance targets to be achieved by each geographical site.

12 OPPORTUNITIES TO STRENGTHEN COECSA

This Section of the report addresses Evaluation Objective (8)

As part of the consultation process adopted for this evaluation, the participants of the individual or group interviews were invited to share their views and perceptions about the strengths and weaknesses of COECSA and how the College could be strengthened. A summary of the feedback is shared in the Table 16 below and key points discussed in succeeding paragraphs (Table 14).

Table 14: SWOT analysis on COECSA

Weaknesses	Strengths
Weak governance structures	Key player in eye health
	Enlarged membership base
Weak human resource policies including staff capacity	Goodwill among donors, good entry point for donors
Sustainability - donor reliant	Access to a variety of skill sets via membership
Small regional footprint	Accredited provider of Continuous Professional Development by the Medical Practitioners and Dentist Board (Kenya and Uganda)
Less inclusive stakeholder engagement	Affiliation/links to international organisations and donors
Limited project management experience	Links to professional bodies
Existing structure not consistent with enlarged geographical area	Existing governance structures
	Virtual college, can run training/skills development programmes
	Expanded region

COECSA represents a merger between the Ophthalmology Society of East Africa (OSEA) and the Eastern Africa College of Ophthalmology (EACO). At the time of the evaluation, COECSA was about to celebrate its second anniversary having been established in 2012. The merger is significant in that COECSA became the College of Ophthalmology instead of Ophthalmologists.

The consultations showed that there is strong perception among the COECSA stakeholders that the College has opened its membership to the fraternity of professionals within the health discipline of Ophthalmology. However, a quick glance at both the Articles of Association and Memorandum of Association showed that full membership of the college is open to ophthalmologists only and that the college exists to serve their interests. Persons outside this category are eligible to become Associate members with observership status at Council meetings. This suggests that COECSA would need to clarify the confusion amongst the stakeholders by making clear who it stands for, what it stands for and whose voice it represents.

There is general perception that the governance structures of COECSA are weak and that their development has in the past tended to be reactive rather than proactive and to be led by

internal rather than external processes. Similarly, the Secretariat is considered to be weak and very thin on the ground. Both the Governance structures and the Secretariat require strengthening in order to take the College to the next level. As mentioned elsewhere in this report, the decision not to appoint a substantive Programme Manager may turn out to be both counter-productive and short-sighted.

The new geographical region covered by COECSA presents new challenges and opportunities. It also introduces new stakeholders with diverse interests which would need to be reconciled with those of the College and the rest of the region.

The Strategic Plan 2012-2016 was developed in April well before the birth of COECSA(College of Ophthalmology of East Central and Southern Africa). This suggests the need to review and re-align the plan to reflect the changes that have occurred in terms of the strategic focus of the expanded region and diversity of interest among the membership. The review would help to promote ownership of the College, its processes and activities by the constituents.

COECSA needs to look beyond donor funding for its sustainability. Presently, COECSA is dependent on donor support. Outside this funding source, Fellowship fees and membership subscriptions and costs of managing scholarship funds comprise the other avenues for raising income. The biggest asset that COECSA has is its membership and the wide variety of skills that it brings to the College.

It is perceived that COECSA is not fully utilising its connections to international and national organisations working in eye health in order to optimise resource mobilisation. The international non-government organisations (INGO) and NGO sectors felt that COECSA was not engaging with them at the policy level although it was acknowledged that engagement was occurring at the operational level. The INGO/NGO sector is a major stakeholder in eye health in all the three countries.

It was mentioned that COECSA does not need to re-invent the wheel (although opportunity always exists to modify and refine it) and that it needs to learn from other Colleges in order to be able to chart its path.

Although the sentiment has become less strong, it was felt that COECSA is being driven by Kenyans and does not present a regional outlook. A paradigm shift might be needed in order to project a regional perspective.

13 CONCLUSION AND RECOMMENDATIONS

13.1 Conclusion

The PQO represents an intervention in the eye health sector that has been highly relevant due to the limited number of trained eye health workers and specialists as well as problems with access to services, particularly in non-urban areas. The project appears appropriately designed, aligns with a number of local, regional and international policy and strategic initiatives and has been demonstrably well implemented and managed. The project has achieved most of its objectives and performance measures. It enhanced training, research and eye health service delivery capacity at the 5 participating Universities and promoted best practice in a number of areas including retinoblastoma and small incision cataract surgery, student examinations and development of clinical guidelines. Anecdotal evidence suggests that the PQO contributed to improvements in the reach of cataract surgery and a reduction in the cataract surgery backlog while at the same time resulting in positive change in the quality of life of service recipients.

The project has broken new ground with regard to scholarship administration and harmonisation of curricula while a number of strategies utilised for the implementation of the PQO can be replicated nationally or regionally. Highly productive synergistic linkages were developed between and among a variety of national and international organisations.

Inefficiencies were experienced due to deficiencies in risk assessment and management processes and challenges with procurement of project inputs. The weaknesses have been captured in this report as lessons learned which should support the planning and design of similar projects in future.

13.2 Recommendations

The following suggestions are being made:

Sightsavers/COECSA

1. Consider aligning indicators for interventions in the eye health sector to the WHO and national data requirements in order to strengthen the national HMIS and to objectively determine the impact of the funded projects.
2. Whilst retaining focus on training of ophthalmologists, consider giving greater attention to improving the production capacity of midlevel eye care worker training institutions in the region in order to scale up eye health service delivery and accelerate progress towards achievement of the Vision 2020 targets. Attention given at this level of eye health cadre would address the priority area for HReH in the three countries and strengthen primary and secondary health care structures.
3. Consider funding research studies in the region in order to establish more accurate benchmarking data on the prevalence and incidence of blindness and low vision that can be used to inform advocacy campaigns and policy formulation and to support planning of eye health programmes in future.
4. Lead and coordinate the development of a regional advocacy strategy on eye health that clearly identifies the focal themes and key messages that should be jointly implemented with the COECSA partners.
5. Consider supporting the training of eye equipment technicians in order to address the shortage being felt across the region and to enhance the sustainability of the equipment provided by the PQO.
6. Consider adopting the results-based monitoring system when reporting project progress in order to give a complete picture of the performance of a project.

COECSA

7. Consider reviewing the COECSA Constitution and Articles of Association to reflect the changes within organisation.
8. Consider setting up and maintaining, on annual basis, a database for HReH in the region that caters as the central reference point for stakeholders in eye health and can be used to monitor the regional performance in this area on ongoing basis.
9. Strengthen engagement with the existing stakeholders working in eye health, especially the INGOs, with the view to strengthen and diversify resource mobilisation.
10. Working collaboratively with key partners, establish a research framework that identifies the research needs and focal areas in the region in order to guide research activity that is coordinated by COECSA.

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15. APPENDICES

Annex 1: Evaluation Terms of Reference
Annex 2: Evaluation criteria rating table
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Sightsavers

Terms of Reference

Final Evaluation of the Promoting Quality Ophthalmology Project in East Africa

1. Background

Promoting Quality Ophthalmology (PQO) in East Africa project is financed by the European Union (EU) with cofounding from Sightsavers and Light for the World (LFW).The project is a multi-year and multicounty programme being implemented by The College of Ophthalmology of Eastern, Central and Southern Africa (COECSA). The project was launched on 1st January 2009 and was closed on 31st December 2013. The target group for this project are 5 ophthalmic teaching universities in East Africa, University of Nairobi (Kenya), Makerere University (Uganda), Mbarara University of Science and Technology (Uganda), Muhimbili University of Health and Allied Sciences (Tanzania) and Kilimanjaro Christian Medical Centre (Part of Tumaini University, Tanzania).

The project's overall objective is to contribute to poverty reduction by improving access to eye health and the quality of eye care in Kenya, Uganda and Tanzania'. The specific objective is to build the capacity of five ophthalmic teaching universities to provide quality eye care training, research and clinical services.

During the five years, the project's operational and coordination unit remained with the College's Secretariat in Nairobi.

2. Purpose of Evaluation

The overall purpose of the evaluation is to establish to what extent the project has contributed to poverty reduction by improving access to eye health and the quality of eye care in Kenya, Uganda and Tanzania. Importantly the end term evaluation will measure the extent to which the PQO project has fully implemented and delivered outputs and attained outcomes, by specifically measuring programme results. At the broader level, the evaluation will contribute towards shared learning and provide accountability to partners, beneficiaries and donors.

Specifically, the objectives of the end term evaluation will include to:

a) Analyze and verify the achievement of intended results and outputs as described in the project logical framework, and assess the performance of the project against its set objectives as well as the challenges that the project faced over the implementation period
b) Assess whether or not the action, design and implementation strategies were consistent with the overall goal of the project.
c) Establish the extent to which the project and its activities have effectively contributed towards building the capacity of five ophthalmic teaching universities to provide quality eye care training, research and clinical services.
d) Identify and provide examples of strategies and approaches that have been successful and empowering, and consider the degree to which these could be consolidated or replicated

e) Identify the strengths and promising practices of the project that can be consolidated and replicated and where possible be built on in future Human Resource for Eye Health in East Africa
f) Generate substantive evidence based knowledge on best practices and lessons learned through the implementation of the project that could be useful to other development interventions at national and international level.
g) Come up with recommendations which will be shared with key stakeholders of the project and used by the implementing agencies to guide and inform future similar projects and programs.

Scope of the evaluation - The physical scope of this work is East Africa, where the project benefited the University of Nairobi, Kenya; Makerere University, and Mbarara University of Science and Technology, in Uganda; Muhimbili University of Health and Allied Sciences, and Kilimanjaro Christian Medical Centre, in Tanzania.

The scope of content will cover the performance against key parameters including the project's relevance, effectiveness, efficiency, sustainability, scalability, coordination and timelines of activity implementation, and its strengths and weaknesses, promising best practices, lessons learnt, and recommendations. The evaluation exercise will be guided by the EC evaluation criteria of relevance, efficiency, effectiveness, impact, and sustainability as elaborated below.

2.1 Evaluation Criteria

In order to generate the information needed to achieve the goal, the consultant(s) will be guided by 7 criteria as explained below.

Relevance - extent to which the intervention is suited to the priorities and policies of the target group, recipient and donor, where applicable. Example questions include:

- How relevant is the project to the identified needs of the target beneficiaries?
- Are the activities and outputs of the programme consistent with the overall goal and the attainment of its objectives?
- Are the activities and outputs of the programme consistent with the intended impacts and effects?

Effectiveness - extent to which an objective has been achieved. Example questions include:

- To what extent have the planned outputs and activities been delivered?
- To what extent have project objectives been met?
- What were the major factors influencing the achievement or non-achievement of the objectives

Efficiency - extent to which results have been delivered with the least costly resources possible. Example questions include:

- How well has the project been implemented?
- Were activities cost-efficient?
- Were objectives achieved on time?
- Was the programme or project implemented in the most efficient way compared to alternatives?

Impact – long term change or effects resulting from the intervention. Example questions include:

- Has delivery of the project outputs and activities led to the desired outcomes and impact?
- What has happened as a result of the programme or project?
- What real difference has the activity made to the beneficiaries?
- Has there been any unintended outcomes?

Sustainability - likely ability of an intervention to continue to deliver benefits. Example questions include:

- To what extent did the benefits of a programme or project continue after donor funding ceased?
- What were the major factors which influenced the achievement or non-achievement of sustainability of the programme or project?

Scaleability/replication – for example:

- What aspects of the programme are suitable for replication?
- Do the necessary conditions and capacity for scale up exist within relevant agencies and governments?

Coherence/coordination – for example:

- Are the project objectives, approaches and design coherent and complimentary with each other?
- Has the project's design and implementation taken into account other sectoral interventions in the area?

3. Review Team

The consultant/s or firm/s shall have demonstrated competence in having undertaken similar work before, including experience in program design and management, planning, monitoring and evaluation. The consultant(s) must demonstrate knowledge and skills in the following areas:

Essential

- Experience with programming and evaluations in public health;
- Strong analytical, writing and presentation skills;
- Experience in working and/or evaluating regional cross-border projects.
- Knowledge of the regional dynamics in the health sector in East Africa.

Desirable

- A Masters/Postgraduate degree in Public Health, Development or other relevant Social Sciences
- At least 5years experience working with Ministries of Health in East Africa or elsewhere in Africa;
- Working knowledge of the eye care sector in East Africa;
- Understanding of the health systems approach in health sector development;

For the purposes of verifying compliance with the European Union's nationality rule, the evaluator / evaluation team members are required, in the Expression of Interest, to state the country of which they are nationals by presenting the documents usual under that

country's law. For further information, please refer to EU guidance at their website. http://ec.europa.eu/europeaid/prag/getAnnex.do?name=A2&id=141&id=141

Please note that as long as the company is eligible, the people or experts it employs do not have to meet the eligibility criteria

4. Methodology

The consultant(s) shall prepare comprehensive participatory methodology for undertaking this evaluation. The methodology must include among others literature reviews, interviewing field/project site visits among others. The consultant(s) will define an appropriate sample size in a way that will avoid selection bias. The evaluation should meet the principles of participation involving both male and female beneficiaries. The field visits and contact sessions with beneficiaries must attempt to reach/meet 25% of the target.

5. Reference Material

Sightsavers will provide all relevant reference material, including:

- Project Proposal
- Signed EC Contract
- Revised project log-frame and
- Project implementation plan
- Project M&E plan
- Midterm review report
- Progress reports submitted to the EU
- Financial reports

6. Indicative Timeframe

The evaluation will take approximately 27 the days. These days will include time for desk review, field activities, travels and report writing. It is suggested the evaluation follows the following key phases:

Phase I - Desk Study: Review of Documentation and Elaboration of field Study [7 days]

The lead consultant/evaluation team will review relevant documentation from section 5 above (Reference material). Based on this review, they will produce an *inception report* which will include an elaborate plan, methodology and sampling strategy of the data collection for evaluation study. The evaluation will only proceed to the next stage upon approval of this inception report. An appropriate inception report format will be made available to the team as part of this TOR.

Phase II: Data Collection [10 days]

This phase of the evaluation will seek to collect primary data on the key evaluation questions explained under evaluation criteria. The team will use the agreed plan, methodology and sampling strategy from phase 1 to conduct the field work.

Phase III – Data Analysis and Production of Evaluation report [10 days]

The team will draw out key issues in relation to evaluation questions and produce a comprehensive report.

The table below summarizes the key activities under the 3 phases outlined above envisaged for this assignment:

Phase	Activity	No of Days
Phase I – Desk study: Review of documentation and elaboration of field Study	Desk research /literature Review	2 days
	Inception Report	2 days
	Development of Data Collection Tools & Pre-Testing	2 days
	Revision of tools based on feedback from the field	1 day
Phase II: Field Data Collection	Field Visits & Data-collection	10 days
Phase III – Analysis and production of evaluation report	Data analysis and preparation of draft report	5 days
	Presentation of Findings & Feedback	1 day
	Review of Draft Report based on Feedback.	4 days
	Submission of final report	
Total		**27 days**

7. Outputs / Deliverables

The consultancy deliverables will include:

7.1 Inception Report

The evaluation team is expected to submit an inception report detailing their understanding and interpretation of the TOR within 5 working days of commencing this evaluation. The purpose of this report is to ensure that the evaluator covers the most crucial elements of the exercise including the appropriateness and robust methodology to be employed. The inception report provides the organization and the evaluators with an opportunity to verify that they share the same understanding about the evaluation and clarify any misunderstanding at the outset. The report should reflect the team's review of literature and the gaps that the field work will fill.

Field work will only commence once this report has been reviewed and approved.

7.2 Draft Report

A draft report in the approved format from the evaluating team will be expected 5 days after the completion of field work and will be produced by the lead consultant. Sightsavers will provide the consultants with written feedback on the draft within **three weeks** of acknowledged receipt. Feedback should be included in the final report.

7.3 Final Report

The final report (not more than 40 pages including executive summary and excluding annexes) will be submitted to Sightsavers within 5 working days after receiving the feedback from Sightsavers on the draft report. Findings and recommendations from the Final Report will be used to assist Sightsavers and partners for future planning.

7.4 Data Sets

The evaluation team will be expected to submit complete data sets (in Access/ Excel/Word) of all the quantitative data as well as the original transcribed qualitative data

gathered during the exercise. These data sets should be provided at the time of submission of the final report.

7.5 Summary findings

On submission of the final report, the team is expected to submit a PowerPoint presentation **(maximum 12 slides),** summarizing the methodology, challenges faced, key findings under each of the evaluation criteria and main recommendations.

8. Reporting Format

Detailed guidelines on how to structure the evaluation report will be provided to the evaluation team prior to commencement of the activity, and reporting templates will be provided which the team should use for the Inception Report and the Evaluation Report.

Please note that penalties up to 10% of agreed fees will be imposed for noncompliance with the requirements 7.1 to 7.4 and reporting format provided.

9. Administrative / Logistical support

9.1 Budget

The consultant should submit to Sightsavers an Expression of Interest indicating their daily rates for the assignment. Sightsavers will assess Expression of Interests submitted according to standardized quality assessment criteria, as well as on the basis of their competitiveness and value for money in line with the budget available for this evaluation. The daily fees proposed by the applicant should exclude expenses such as:

- Economy class airfares and visas. (where applicable)
- In-country transportation
- Hotel accommodation (bed, breakfast and even meals taken at the place of accommodation)
- Stationery and supplies
- Meeting venue hire and associated equipment eg projectors

Sightsavers usually cover the above costs, unless otherwise stated.

The consultant/team is expected to cover all other costs and materials not mentioned above related to this exercise as part of their daily fees or equipment (eg laptops).

9.2 Schedule of Payment

The following payment schedule will be adhered to:

- On signing the contract: 20%
- On submission of draft report: 30%
- On submission of final report: 20%
- On acceptance and approval of final report: 30%

9.3 Mode of Payment

As agreed by Sightsavers and the consultant.

Annex 1: Evaluation Criteria Rating

	Highly Satisfactory	There is strong evidence that the evaluated initiative ***fully meets all or almost all*** aspects of the evaluation criterion under consideration. The findings indicate a highly satisfactory, largely above average achievement/progress/attainment and potentially a reference for effective practice.
	Satisfactory	There is strong evidence that the evaluated initiative ***mostly meets*** the aspects of the evaluation criterion under consideration. The situation is considered satisfactory, but there is room for improvements. Achievement/progress/attainment under this criterion is potentially a reference for effective practice. There is need for a management response to address the issues which are not met.
	Caution	There is strong evidence that the evaluated initiative ***partially meets*** some aspects of the evaluation criterion under consideration. There are issues which need to be addressed and improvements are necessary under this criterion. There is need for a strong and clear management response to address these issues. Evaluation findings are potentially a reference for learning from failure.
	Problematic	There is strong evidence that the evaluated initiative is ***borderline in terms of meeting*** the aspects of the evaluation criterion under review. There are several issues which need to be addressed. Evaluation findings are potentially a reference for learning from failure. There is need for a strong and clear management response to address these issues.
	Serious Deficiencies	There is strong evidence that the evaluated initiative ***does not meet key*** aspects of the evaluation criterion under consideration and is performing poorly. There are serious deficiencies in the evaluated initiative. There is need for a strong and clear management response to address these issues. Evaluation findings are potentially a reference for learning from failure
	Not Sufficient Evidence	There is **not sufficient evidence** to rate the evaluated initiative against the criterion under review. The programme needs to seriously address lack of evidence in their initiative.

Annex 3

List of participants

Position	Organisation
Regional Director	Sightsavers Regional Office for East and Southern Africa
Programme Implementation and Management Specialist	Sightsavers Regional Office for East and Southern Africa
Government Relations Manager	Sightsavers Regional Office for East and Southern Africa
Programme Officer	Sightsavers Country Office, Tanzania
Finance and Support Services Manager	Sightsavers Country Office, Tanzania
President	COECSA, Nairobi, Kenya
Acting Programme Manager	COECSA, Nairobi, Kenya
Monitoring and Evaluation Officer	COECSA, Nairobi, Kenya
Dean, School of Medicine	University of Nairobi, Kenya
Chair, Department of Ophthalmology	University of Nairobi, Kenya
Lecturer, Department of Ophthalmology	University of Nairobi, Kenya
Lecturer, Department of Ophthalmology	University of Nairobi, Kenya
Lecturer, Department of Ophthalmology	University of Nairobi, Kenya
Lecturer, Department of Ophthalmology	University of Nairobi, Kenya
Lecturer, Department of Ophthalmology	University of Nairobi, Kenya
Head, Ophthalmic Services Unit	Ministry of Health, Kenya
Medical Superintendent	Kitui Hospital, Kenya
Ophthalmic Clinical Officer	Kutui Eye Health Centre, Kitui Hospital, Kenya
Director of Human Resource Development	Ministry of Health and Social Welfare, Tanzania
Country Director	Sightsavers Tanzania Country Office, Tanzania
Ophthalmologist	Muhimbili University of Health and Allied Sciences, Tanzania
Head, Department of Ophthalmology	Muhimbili University of Health and Allied Sciences, Tanzania
Ophthalmologist	Muhimbili University of Health and Allied Sciences, Tanzania
Ophthalmologist	Muhimbili University of Health and Allied Sciences, Tanzania
Master of Medicine (Ophthalmology) student	Muhimbili University of Health and Allied Sciences, Tanzania
Master of Medicine (Ophthalmology) student	Muhimbili University of Health and Allied Sciences, Tanzania
Master of Medicine (Ophthalmology) student	Muhimbili University of Health and Allied Sciences, Tanzania
Master of Medicine (Ophthalmology) student	Muhimbili University of Health and Allied Sciences, Tanzania
Master of Medicine (Ophthalmology) student	Muhimbili University of Health and Allied Sciences, Tanzania
Ophthalmologist	Muhimbili National Hospital, Tanzania

Paediatric Ophthalmologist	Muhimbili National Hospital, Tanzania
Ophthalmologist	Muhimbili National Hospital, Tanzania
Head, Department of Ophthalmology	Kilimanjaro Christian Medical Centre, Tanzania
Paediatric Ophthalmologist/lecturer	Kilimanjaro Christian Medical Centre, Tanzania
Oculoplastics Ophthalmologist	Kilimanjaro Christian Medical Centre, Tanzania
Ocular Oncologist	Kilimanjaro Christian Medical Centre, Tanzania
Ophthalmic Nurse	Kilimanjaro Christian Medial Centre, Tanzania
Nurse Coordinator	Kilimanjaro Christian Medical Centre, Tanzania
Ophthalmologist	Kilimanjaro Christian Medical Centre Tanzania
Ophthalmologist	Kilimanjaro Christian Medical Centre, Tanzania
Consultant /Ophthalmologist	Mbarara University of Science and Technology, Uganda
Head, Department of Ophthalmology	Makerere University, Uganda
Lecturer, Department of Ophthalmology	Makerere University, Uganda
Lecturer, Department of Ophthalmology	Makerere University, Uganda
Lecturer, Department of Ophthalmology	Mbarara University of Science and Technology, Uganda
Vice Chancellor	Mbarara University of Science and Technology, Uganda
Associate Dean, Faculty of Medicine	Mbarara University of Science and Technology, Uganda
Head, Department of Ophthalmology	Mbarara University of Science and Technology, Uganda
Ophthalmologist/Lecturer, Department of Ophthalmology	Mbarara University of Science and Technology, Uganda
Administrator	Ruharo Eye Centre, Mbarara, Uganda
Ophthalmologist	Ruharo Eye Centre, Mbarara, Uganda
Public Relations Officer	Mbarara University of Science and Technology, Uganda
Ophthalmologist	Ruharo Eye Centre, Uganda
Director, Human Resources Department	Ministry of Health, Uganda
National Eye Health Coordinator	Ministry of Health, Uganda
Country Manager	The Fred Hollows Foundation, Kenya
Human Resources Development Coordinator, Africa	The Fred Hollows Foundation, Kenya
Project Officer	CBM Regional Office for East Africa, Kenya
Country Coordinator, Kenya	CBM Regional Office for East Africa
Program Coordinator Mozambique, Kenya, Tanzania and Uganda	Light for the World, Austria

Annex4

List of research studies funded by the PQO

1. *Rapid Assessment of Avoidable Blindness (RAAB) in Mubembe District-Central Uganda*- Dr. Paddy Musana (formerly of MUK):

2. *Visual Outcome Complications and Barriers to Follow up after Cataract Surgery in Ntungamo District, South-West Uganda*- Dr. Wilson Bakaki (MUST)

3. *A Situational Analysis of Diabetic Retinopathy (DR) Services in Tanzania*- Dr.MilkaMafwiri (MUHAS)

4. *Situational Analysis of Sub-specialty training in East Africa*- Dr. Millicent Kariuki (UON)

5. *The Ex-Press Mini Shunt Verses Trabeculectomy in African Patients: A Randomised Controlled Trial*- Dr. Sheila Marco (UON)

6. *Outcomes of Paediatric Cataract Surgery in South-Western Uganda*- Dr. John Onyango (MUST)

7. *Pterygium Study: Management by Single Dose Beta Radiation and ConjuctivalAutografting*- Prof.Agaba Ateenyi (MUK)

8. *Review of current continuing professional development (CPD) opportunities offered to Ophthalmologists and Mid-level cadres in East Africa*. Dr.Kihaki Kimani , Peter Kithuka

9. *Prevalence and factors associated with ocular manifestation of tuberculosis referral centre, Mulago hospital*. Dr. Ann Musika

10. *Incidence of neonatal conjunctivitis with present clinical practice seen at Mbarara regional referral hospital, Uganda: a cohort study.* Ayebazibwe Bosco, Twinamasiko Amos, Waddell Keith.

11. *Diurnal intraocular pressure fluctuation in black adult primary open angle glaucoma patients attending Ruharo Eye Centre, South- Western Uganda*. Dr.Simon Arunga

12. *Uptake of Ophthalmology in East Africa*- Prof.Dunera Ilako and Dr. Salome Bukachi (UON)

13. *Efficacy of Glaucoma Treatment in North- Eastern Tanzania- PI*- Dr. William Makupa (KCMC)

14. *Referral systems*, Dr.Gichangi, Peter Kithuka and Danny Irungu

Annex 5

Case studies

Case study 1: Matilda (not real name)
Matilda is female and a nurse by profession. Two years ago, Matilda started by having painful, teary, swollen and red eyes which resulted in poor vision and later loss of sight in one eye. The eye was operated on in January 2014 and the tears, redness and pain stopped but the swelling continued. So what has changed for Matilda? *'Before the operation I could not read the mobile phone number, now I can read the names and the numbers in my phone. Whenever I wanted to poor liquids in a glass I would end up emptying it on the floor. I could not put a canula on a patient or give injection but now I can without any difficulty. I have gone back to my nursing duties at the hospital. I can do knitting and saw table cloths. My workmates reported me to the Head Office that I do not want to work. I am a new person, I had started to lose hope and starting to hate myself.'*(Matilda)

Case study 2 (Lydia (not real name)
Lydia lost is a retired teacher who has a high blood pressure condition. In 2011 she had her eyes examined and referred for operation. Lydia had both eyes operated on; the left eye in March 2011 followed three months later by the right eye. Today Lydia has come to the outreach clinic for review. Lydia narrates that since the operation she has been able to perform leadership positions in her community including being the Chairperson of one group and Secretary of another. She is now able to work in her field; she grows bananas and sugar cane which she sells unassisted at the local market.

Case study 3: James (not real name)
James is a prisoner serving a jail term for assaulting his brother. He went completely blind in 2011 following complicated cataract. He was examined and declared completely blind but authorities denied him permission to refer to hospital in Nairobi. Instead was brought to the local clinic after hearing about the outreach service but was worried because he did not have any money to pay for the services. James' right eye was operated on and sight restored in that eye. The left eye was not operated on and still blind. James is excited about the prospect of being able to see his wife and children again after 3 years. *'I feel like I am born again'* (James)