EVALUATION OF EAST AFRICA CHILD EYE HEALTH PROGRAMME

FINAL REPORT 2.0 (dated 24th May 2017)

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Acronyms

BHVI	Brien Holden Vision Institute
CCBRT	Comprehensive Community Based Rehabilitation in Tanzania
CEH	Child Eye Health
CHEW	Community Health Extension Worker
CHV	Community Health Volunteer
DHIS	District Health Information System
EARC	Education Assessment Resource Centre
ECDE	Early Childhood Development Education
FGDs	Focus Group Discussions
HSCD	Health System and Capacity Development
IDIs	In-depth Interviews
KCMC	Kilimanjaro Christian Medical Centre
KSB	Kenya Society for the Blind
MCH	Mother Child Health
MMUST	Masinde Muliro University of Science and Technology
MoE	Ministry of Education
MoH	Ministry of Health
SDGs	Sustainable Development Goals
SSIs	Semi-structured Interviews
TSC	Teachers Service Commission
USD	United States Dollar

Acknowledgements

This was a complex multi-sector, multi-component, multi-region, multi-country project, the conceptualisation and execution of which in only four years was no less than a Herculean feat. Despite many challenges, the project consortium, implementing partners and stakeholders not only surmounted these, but also surpassed most of the targets. They have effectively laid the foundation of a long-term child eye health movement in East Africa.

Standard Chartered's Seeing is Believing programme is to be congratulated for their vision and commitment to support this unprecedented venture. It is hoped that the learning from this project will contribute towards furthering the mission to achieve child eye health as there is still much left to do!

We extend our grateful appreciation to Brien Holden Vision Institute for selecting us as the Evaluation team for this assignment and for planning and managing a very productive evaluation itinerary. All omissions and commissions are duly regretted.

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Executive Summary

Background

The Brien Holden Vision Institute (BHVI) implemented a four-year project on Child Eye Health (CEH) in East Africa (Kenya, Uganda and Tanzania) as part of a consortium. The project was supported by the Seeing is Believing programme, an initiative of Standard Chartered Bank. The programme aimed to i) improve the quality of eye health services and access for all children aged 0-15 years; ii) establish the School Eye Health Programme as a sustainable and efficient model of delivering eye health services to children; iii) improve the quality of early intervention and education of children with vision impairment by ensuring that the children receive necessary specialised educational support; iv) evaluate the model approaches for promoting child eye health in East Africa, document and publish the findings to inform future strategies and replication; v) embed Child Eye Health in the policies and programme work of the Ministries of Health and Education.

BHVI sought to determine through a third party validation process the extent to which the project goal, outcomes, objectives and outputs had been met over the project duration in the project coverage area. It also aimed to generate key learnings and recommendations to inform future child eye health programmes.

Methodology

The methodology for this evaluation incorporated a quantitative component, which included a comprehensive document review of the project reports, annual and completion reports, mid-term review reports, evaluation reports, case studies and key performance indicators. In addition, it had a qualitative component for which visits were made to field sites health facilities upgraded in the programme and to interview sample groups of beneficiaries to ascertain stakeholder perspectives. The evaluation approach included observation, and key informant interviews particularly of key government officials, heads of department and duty bearers to obtain their views and insights. In addition, interviews were also conducted of representatives of the international eye care organisations who were part of the consortium.

Findings

Relevance

The project was found to be highly relevant both in terms of childhood health and education development needs, and identification and treatment of avoidable causes/treatable causes of blindness and vision impairment. The project was also relevant in identifying children with irreversible blindness and low vision for assessment and placement in education systems. It was aligned well with global eye health policy frameworks, and demonstrated partial alignment with regional and national policy frameworks for health and education.

Effectiveness

The project objectives for training, screening, capital infrastructure and health education components achieved a high output rate. This was commendable given the comparatively short duration of the project. Further, the project screened 4.6 million children, which was a massive increase from its planned target of 3 million children. However, the supply of spectacles and low vision devices demonstrated a significant underperformance from planned targets. Further, identification and rehabilitation of children with irreversible blindness only achieved two-fifths of the target envisaged.

The overall strategy of school screening and training of teachers to conduct screening was a sound one. The evaluation findings indicate that teachers responded positively to screening school children and recognised that vision impairment could be an impediment to learning and school performance.

Although the project achieved a high uptake of referrals from schools to health facilities/health workers, this was mostly due to initiatives of teachers and the outreach services conducted in the latter part of the project. Barriers to uptake of referrals included parental awareness, parental fears, and costs and logistic barriers.

Efficiency

The budget utilisation patterns indicate that while costs for local implementing partners, service delivery and training achieved 85% or more utilisation, costs for advocacy and awareness, and monitoring and research achieved less than 75% utilisation.

In most cases, the Evaluators did not find any instance of duplication or overlap of similar initiatives in the project areas. The project design and strategy could have been improved by more local involvement and base-upwards planning and design of the project. The project was spread too thinly in 20 geographical areas. It would have been better to work in fewer areas but implement the project in depth to train a larger workforce in health and education, and thereby enhance coverage and access. The project duration of 4 years was short for the scale and scope of the project, which should have been at least 5 years preferably with a follow-on phase.

The project would have benefitted from developing and executing a social behavioural change communication strategy with measurable indicators to assess impact and change. This was a vital component that was missing from the project design

Impact

Overall, the project had a positive impact on health and education beneficiaries in terms of knowledge gained about eye health and capacity to screen and refer for further examination and treatment. One of the unintended 'negative' consequences of the project was that it missed to train head teachers (except in Uganda). Vision champions were noted as a highlight of the project as it mobilised child to child interaction. Of the children who were prescribed spectacles, some indicated that they benefitted enormously from the spectacles received, while others indicated that they perceived no appreciable difference. A project of this scope would have benefitted from periodic and random spectacle compliance studies amongst students to monitor quality and ascertain appropriateness of the prescription.

Although the project was too short in duration to produce large scale institutional impact, successful advocacy and engagement by project partners led to some key institutional changes:

- Catalysed the establishment of a Technical Working Group on child eye health under the Kenya National Eye Health Programme
- Successfully advocated for school screening for eye health to be integrated in the new school health programme policy in Uganda
- New draft National School Health Policy and Strategic Plan in Tanzania includes child eye health, references to re-establishment of school health clubs, use of vision corridors as a self-screening tool, and the role of Vision Champions

Sustainability

The project generated considerable local ownership. There was an appreciable level of acceptance by all health and education officials interviewed by the Evaluators. It fostered much closer collaboration between health and education at national and sub-national levels and laid the foundation for future collaborative programming and monitoring. Further, it engaged with the national and sub-national structures. It obtained formal approval and endorsement from the national authorities in health and education. It also received support and facilitation from the sub-national structures.

Several components of the project have a high likelihood of continuing beyond the project life. These services provided by upgraded eye units, screening at schools where teachers were trained, and provision of technology (three optical workshops were strengthened and they continue to provide services for spectacles and low vision devices).

Consortium

Overall, the Consortium members appreciated the working of the 'Consortium' and recognised that since it was a new learning for all partners, it took some time at the beginning of the project for the working relationships to be established that focussed on the project mission and objectives. Earlier in the project, partners felt obliged to prioritise their respective organisational agendas. However, by the third year, the 'Consortium' was working more effectively and began to identify solutions to challenges jointly. Partners benefitted from each other's strengths and areas of expertise, and synergised efforts for the project.

The 'Consortium' members recognised that the project had provided an enormous learning opportunity for them as most had to work outside their comfort zones. It was understandable that there would be some operational and coordination challenges in the beginning. However, in the course of the project, they were able to streamline their respective approaches and work as a more coordinated team.

Learnings

- The project **established unequivocally** a viable and replicable approach for child eye health in the public sector
- The project demonstrated that **successful collaboration and sectoral linkages are essential** between health and education sectors for promotion of child eye health at scale
- It is vital to undertake a thorough **stakeholder mapping and analysis** when planning such a project to identify the management and coordination tiers and duty bearers in both health and education
- It is expedient for project design to undertake a **systematic and comprehensive review and analysis of the respective health and education policies and sector specific national and sub-national strategic/development plans**
- Capacity building of non-eye health workers at scale **necessitates a change in the roles and responsibilities of the respective cadres, and upskilling of competencies to perform those roles**
- The training of teachers for a clinical task requires **formal and structured engagement with the education sector**
- Generating demand for child eye health and gender equity requires a **dedicated social and behavioural change communication strategy**
- **Refresher training and supportive supervision** of essential health and education cadres are vital components of project design
- A **unified 'consortium' approach** provides a more efficient planning, management and coordination mechanism when there are multiple project partners, and each of which delivers a **'comprehensive and un-fragmented essential package of services'** in defined geographical areas
- A child eye health programme that is designed to be **implemented in depth** in few selected administrative regions has a higher likelihood of demonstrating and sustaining programmatic impact at scale

Recommendations for short and medium term actions

To BHVI-led Consortium

- Hold separate formal feedback events with multimedia presentations at central level and at each project area level
- Print copies of the evaluation report and disseminate to stakeholders
- Hold a policy dialogue on child eye health with health and education planners and decision makers, complemented by a stakeholder consultation process, and support government efforts to develop a road map for child eye health in the three countries

To Health and Education Authorities in Kenya, Uganda and Tanzania – points for consideration

- Accelerate the finalisation and launch of the revised School Health Policies, Strategies and Plans
- Constitute an inter-ministerial committee to provide guidance on the coordination and execution of the School Health Strategies and Plans, and develop a road map for child eye health
- Invite a partnership group of international partners to support government efforts for child eye health in building institutional capacities, developing learning resources, upskilling and developing competencies of the health and education workforce, and strengthening information pathways, in line with sector specific strategic development plans
- Advise the national centres/institutes of curriculum development and teacher training colleges to incorporate child eye health as part of curricular reform for teacher training and child learner education (including ECDE and primary basic education)
- Incorporate child eye health as part of competencies and training curricula of non-eye health personnel especially Primary Health Care workers, MCH workers and Community Health Volunteers
- Appoint a Technical Working Group to develop modules on child eye health for head teachers, school teachers and school health teachers, non-eye health workers; and examine the feasibility of developing self-sustaining optical services (spectacles and low vision devices) at eye units at regional/county/district level
- Review and approve the child eye health modules and direct that they be cascaded through the existing pre-service and in-service training system
- Issue an advisory to all schools to ensure that all children are screened for eye health and that vision and eye health status are formally included in every student card
- Direct DHIS and EMIS to incorporate minimum essential indicators for child eye health and improve reporting by incorporating this in ongoing health and education information training programmes for staff
- Prioritise and expedite the recruitment and deployment of optometrists to eye units to make available services for refraction and low vision in support of the school health programme and special needs education

Background

The Brien Holden Vision Institute (BHVI) implemented a four-year project on Child Eye Health (CEH) in East Africa (Kenya, Uganda and Tanzania). This project was supported by Standard Chartered's 'Seeing is Believing' programme. The East Africa Child Eye Health programme was managed through two consortia:

- **First Consortium** – comprised of 8 members namely Fred Hollows Foundation, Operation Eyesight Universal, Light for the World, Perkins International, African Vision Research Institute, Masinde Muliro University of Science and Technology, Optometric Associations of Uganda and Tanzania and was led by BHVI
- **Second Consortium** – comprised of 3 members namely Fred Hollows Foundation, Sightsavers, College of Ophthalmology for Eastern, Central and Southern Africa and was led by CBM

The project was implemented in partnership with the Ministries of Health and Education and collaborated with other relevant ministries in the three countries.

The BHVI led consortium focussed on child eye health from community to district/county level health care, while the CBM led consortium's area of work was directed towards the secondary and tertiary level child eye health care. In children identified with eye problems at the community to district/county level health care, and who need specialist care would be referred to the secondary and tertiary eye care components of the programme.

The total budget of the project across the two consortia was USD 5 million over a period of 4 years (Jan 2013-Dec 2016). The BHVI led consortium had a budget of USD 2.25 million.

The BHVI led component of the programme hoped to achieve the following at the end of the project:

- Improve the quality of eye health services and access for all children aged 0-15 years.
- Establish the School Eye Health Programme as a sustainable and efficient model of delivering eye health services to children
- Improve the quality of early intervention and education of children with vision impairment by ensuring that the children receive necessary specialized educational support
- Evaluate the model approaches for promoting child eye health in East Africa, document and publish the findings to inform future strategies and replication
- Embed Child Eye Health in the policies and programme work of the Ministries of Health and Education

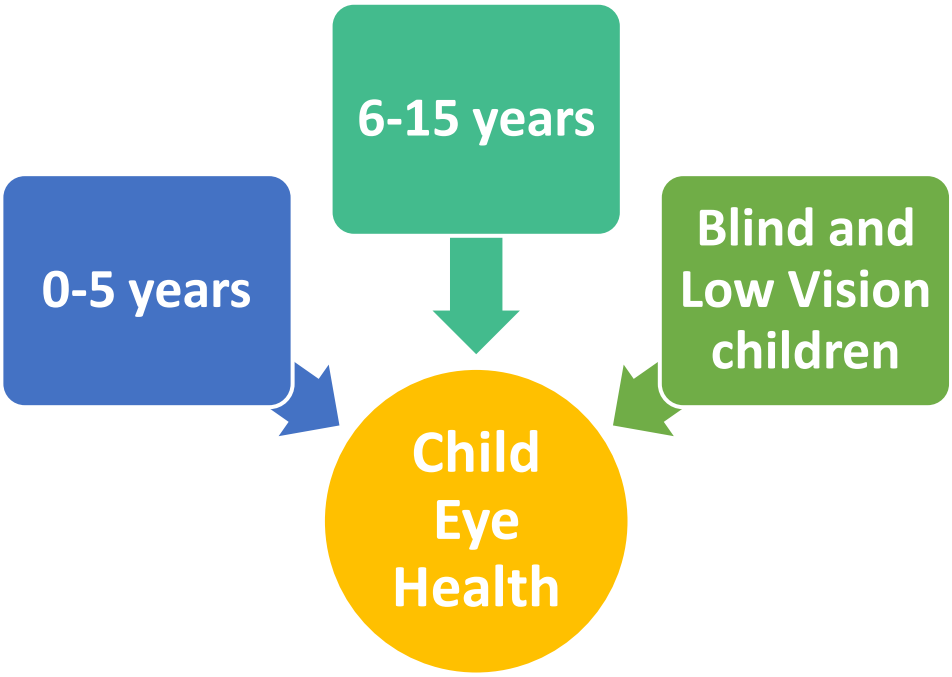
The key performance indicators for the project included the following:

- Capacity building for 2,400 eye and general health care personnel
- Train 2,900 teachers of sighted children in CEH and basic screening

- Capacity building of 130 teachers for children with vision impairment
- Equip 20 district/county hospitals with essential child eye health equipment
- Screen 3 million children, treat and refer appropriately
- 1 million people (children and adults) reached with health education and promotion messages

The project conceptualisation of the BHVI led component comprised of the following 3 components:

- Pre-school children aged 0-5 years
- School-going children aged 6-15 years
- School aged children who were blind or had low vision



The project strategies were designed to address the needs of these three groups. They comprised of 6 essential programming components.

1. Pre-school screening and eye health promotion for children 0-5 years

Community based health workers were trained in child eye health promotion and treatment of minor eye ailments in children and for referral to the next appropriate level of care. Additionally, it was envisaged that:

- antenatal clinic staff would integrate child eye health into all their activities
- midwives would integrate child eye care into their procedures
- paediatric (under five) clinic staff would integrate child eye health into their regular activities

The project aimed to integrate CEH in the Mother and Child Health programme. It was envisaged that links would be developed with the nutrition and Vitamin A supplementation health programmes to create awareness among mothers participating in these programmes to improve case detection, management and referral of children with eye problems. Further, it was also expected that expectant mothers with children having eye problems would also be referred for child eye health care.

2. School screening and eye health promotion for children 6-15 years

This constituted a high volume component of the project. It was planned to be implemented as part of ongoing school health programmes in the respective countries. In this component, regular teachers of sighted children would be trained in vision screening and child eye health of school children. They would further be assisted by Vision Champions (grade 6 school children aged 11-12 years) to promote a 'child to child' approach. Children identified with eye problems would be referred to the nearest participating district/county hospital for examination and refraction.

3. Identification of children with blindness or low vision

This was an important component of the project which sought to identify children with blindness or low vision and to refer them for appropriate health and education assessment. The ophthalmic clinical officers, optometrists and ophthalmologists in the project areas were to be trained in vision screening children with disabilities, while early intervention specialists would also be trained.

Children with low vision would be referred to low vision therapists, while those who are school aged would be assessed by specialist teachers trained in assessment and instructional practices to advise on school placement and educational and rehabilitation support.

4. Research

It was envisaged that research would be undertaken in collaboration with research partners to validate the child eye health approach and provide evidence for its wide scale application in other regions/countries.

5. Infrastructure Development

Twenty district or county hospitals identified as participating health facilities were strengthened with technology support to improve child eye health services for diagnosis and treatment.

6. Training of health and education professionals

This involved training or up-skilling health workers in primary eye care and community eye health using existing learning materials adapted for the project. Further, education staff would be trained in aspects of child eye health relevant to their sector e.g. school teachers trained in vision screening, specialist teachers trained in assessment of children with vision impairment. Health professionals would also be trained in identification and assessment of children with vision impairment.

Scope and Purpose of Evaluation

BHVI sought to determine through a third party validation process the extent to which the project goal, outcomes, objectives and outputs had been met over the project duration in the project coverage area.

In addition, the evaluation aimed to:

- assess the relevance, effectiveness, efficiency, sustainability, and impact of the BHVI led component of the East Africa CEH project
- generate key lessons and identify promising practices for learning to improve future interventions targeting children

Methodology

The methodology for this evaluation incorporated a quantitative component, which included a comprehensive document review of the project reports, annual and completion reports, mid-term review reports, evaluation reports, case studies and key performance indicators. In addition, it had a qualitative component for which visits were made to field sites health facilities upgraded in the programme and to interview sample groups of beneficiaries to ascertain stakeholder perspectives. The evaluation approach included observation, and key informant interviews particularly of key government officials, heads of department and duty bearers to obtain their views and insights. In addition, interviews were also conducted of representatives of the international eye care organisations who were part of the consortium.

In order to streamline the evaluation process, the evaluation team was led by a Lead Evaluator and supported by 3 Local Evaluators.

The evaluation had two components:

- Visit to a purposive sample of the health facilities strengthened by the programme, and to meet key health and education officials
- Interview of programme beneficiaries – the sampling frame for the different beneficiary groups was provided by the Evaluation Commissioner

The first component was designed to be undertaken by the Lead Evaluator. The second component was undertaken by Local Evaluators who had in-depth knowledge about the beneficiary groups in their respective countries. The Lead Evaluator and team of Local Evaluators worked synchronously in designated project sites.

The Local Evaluators undertook the following:

- Conducted the qualitative data collection from beneficiary groups identified by the organisation – qualitative data collection was in the form of key informant interviews and focus group discussions
- Performed a qualitative data analysis with emergent themes

At the end of the evaluation, a debrief session was held between the Lead and Local Evaluators to discuss findings and tie up any loose ends.

The overall approach and detailed planning of data gathering and field visits was developed after consultation with the BHVI team and BHVI Evaluation Commissioner.

An evaluation framework was developed that incorporated specific evaluation questions from the Terms of Reference, while supplementary questions were proposed to help elucidate the information required (**Appendix 1**). The sampling frame is presented in **Appendix 2**. The list of stakeholders and key informants is shown in **Appendix 3**, while the questions for various groups are shown in **Appendix 4**. The work plan is shown in **Appendix 5** and the visit plan in **Appendix 6**.

The emergent themes and summaries from the focus group discussions/interviews conducted by the Local Evaluators are shown in **Appendix 7**.

The country maps of Kenya, Uganda and Tanzania are shown in **Appendices 8-10** respectively.

The findings are presented according to the themes and evaluation questions provided by Brien Holden Vision Institute in the Terms of Reference. Operational level learnings and recommendations are discussed in the various chapters on Findings as relevant.

Strategic level learnings are presented as a separate chapter.

Strategic recommendations are presented separately in two chapters:

- The first set of recommendations deals with short and medium term actions suggested for the BHVI-led Consortium and the health and education authorities in the three countries
- The second set of recommendations relate to a future child eye health programme strategy

Findings

Relevance

This section presents the findings regarding the institutional context and relevance of the project to regional and country needs.

Key Evaluation Question

To what extent are the objectives and design of the project fitting with the current global / regional / national policies of the countries?

The overall objectives and design of the project have a good alignment with current global policy frameworks, and partial alignment and synergy with the current regional and national policy frameworks. These are summarised in **Tables 1-2** below.

Table 1 - Alignment of project objectives and design with global and regional policy frameworks

Level	Policy Framework	Extent of alignment	Suggestions
Global	Sustainable Development Goals (SDGs)	▪ Partial synergy with SDG Goals on health and education	▪ Future programming needs to align and synergise with country specific sectoral SDG compliant strategies
	VISION 2020 – The Right to Sight	▪ Fully aligned with its principles and addresses priorities of childhood blindness and refractive errors	▪
	Global Action Plan – Universal Eye Health 2014-2019	▪ Aligned with need to strengthen health systems, eye health workforce development and primary health care ▪ Addresses component of multi-sectoral collaboration by working with health and education sectors	▪ While the project strengthened various aspects of health systems, it would have been more effective to incorporate a health systems approach in the project design
Regional[1]	East Central and Southern Africa Health Community Strategic Plan 2017-2022	▪ Addresses priorities of human capacity development, health systems strengthening and child health, and partial strengthening of institutional capacity ▪ Needs alignment with its strategies	▪ Future programming needs to align and synergise with Health Systems and Capacity Development (HSCD) Cluster[2]

[1] http://www.ecsahc.org/

[2] The Health Systems and Capacity Development (HSCD) Cluster is a merger of two technical programmes – the Health Systems and Services Development (HSSD) and the Human Resources for Health and Capacity Development (HRH&CD) Programmes, following the restructuring process endorsed by the 61st Health Ministers Conference in 2015

Table 2 - Alignment of project objectives and design with national policy frameworks

Country	Policy Framework	Extent of alignment	Suggestions
Kenya	Kenya Health Sector Strategic and Investment Plan 2013-2017	▪ Aligned with need to strengthen health systems, health workforce development and primary health care	▪ Future programming needs to align and synergise with Health Investment Areas especially with local government plans
	Kenya Health Sector Human Resources Strategy 2014-2018	▪ Aligned with need to strengthen health workforce development	▪ Future programming needs to align and synergise with outcomes and strategic objectives
	Kenya National Education Sector Plan 2013-2018	▪ Partly aligned with basic education, special needs education, school health, equity and inclusion, and in-service teacher training	▪ Future programming needs to align and synergise with sectoral priorities and strategies
Uganda	Uganda Health Sector Development Plan 2015-2020	▪ Partly aligned with non-communicable diseases and school health	▪ Future programming needs to align and synergise with programme areas and key interventions
	Uganda Human Resources for Health 5 year Roll-out Plan 2010-2015	▪ Partly aligned with skill mix development	▪ Future programming needs to align and synergise with strategic objectives and outputs
	Uganda Revised Education Sector Strategic Plan 2007-2015	▪ Partly aligned with primary education, strengthening teaching force	▪ Future programming needs to align and synergise with objectives and strategies
Tanzania	Tanzania Health Sector Strategic Plan IV 2015-2020	▪ Aligned partly with the 'Bigger Results Now' Healthcare System – especially human resources for health, child health and health facility development	▪ Future programming needs to align and synergise with the strategic framework
	Tanzania Human Resource for Health and Social Welfare Strategic Plan 2014-2020	▪ Partly aligned with health workforce development	▪ Future programming needs to align and synergise with key result areas and strategic objectives
	Tanzania Education Sector Development Programme 2008-2017	▪ Partly aligned with improving teaching and learning, equitable access to quality education, on-job training of teachers, school health (National School Health Programme part of the Education Sector Development Programme)	▪ Future programming needs to align and synergise with strategic objectives, outcomes-based clusters and key result areas

The Disability Policies, Special Needs Education Policies/Strategies, Inclusive Education Policies/Strategies and School Health Policies/Strategies are currently under review in the three countries.

To what extent was the project strategy and activities implemented relevant in responding to the eye health needs of the children in the countries?

The three countries have a high childhood population (0-18 years) that accounts for almost 50% of the total population. Further, about one-third of the population is of school-going age. Some of the key childhood indicators reported by UNICEF[3, 4, 5] are presented in **Table 3** below.

Table 3 - Selected childhood indicators in project countries

Indicator	Kenya	Uganda	Tanzania
Population 2012 under 18 years	49%	55.5%	51.3%
Population 2012 under 5 years	16%	19%	17.8%
Under 5 Mortality Rate 2012	73	69	54
Primary School Participation, Net Enrolment Ratio 2008-2012 Male %	83.5%	92.5%	98.5%
Primary School Participation, Net Enrolment Ratio 2008-2012 Female %	84.5%	95.2%	98%
Primary School Participation, Net Attendance Ratio 2008-2012 Male %	72.4%	81.3%	78.9%
Primary School Participation, Net Attendance Ratio 2008-2012 Female %	75%	81.1%	81.9%
Primary School Participation, Survival rate to last primary grade %, 2008-2012, survey data	96.1%	71.6%	91.2%
Birth Registration 2005-2012	60%	29.9%	16.3%

(Source: UNICEF)

These indicators suggest high school enrolment and attendance rates, which are higher in Tanzania compared to Kenya.

In 2010, it was estimated that there were about 419,000 children with blindness in Sub-Saharan Africa[6]. Further, a group of researchers concluded that 39% of blindness and severe vision impairment in children in Africa was preventable or treatable[7]. Studies from East Africa have demonstrated that there is a significant prevalence of refractive errors in children ranging from 5.2% in Kenya[8] to 11.6% in Uganda[9]. However, these results need to be interpreted in the context of the different studies and age groups of children examined.

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[3] https://www.unicef.org/infobycountry/kenya_statistics.html Accessed on 9th April 2017

[4] https://www.unicef.org/infobycountry/uganda_statistics.html Accessed on 9th April 2017

[5] https://www.unicef.org/infobycountry/tanzania_statistics.html Accessed on 9th April 2017

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[8] Muma M K, Kimani K, Kariuki – Wanyoike M M. Prevalence of significant refractive errors in primary school children of a rural district of Kenya. East African Journal of Ophthalmology, Nov 2007

[9] Kawuma M, Mayeku R. A survey of the prevalence of refractive errors among children in lower primary schools in Kampala district. African Health Sciences. 2002;2(2):69-72.

Screening of school children for uncorrected refractive errors has been demonstrated to be a cost-effective intervention[10].

A recent study in Kenya[11] attempted to obtain information of refractive error services in terms of human resources and equipment, their distribution and levels of provision. The study revealed the following:

- There is shortage of eye care workers at all levels of service delivery and lack of essential equipment for refractive services
- Most refractions are not performed in the public sector, although more personnel in the sector have been trained on how to refract

The study suggested that the challenge of refractive errors could be addressed by adopting a public health approach. It further recommended that integration could be achieved at different service levels, which include diagnosing refractive errors and other ocular conditions, establishing clear referral pathways, promoting eye health education/awareness and ensuring a viable mechanism for dispensing spectacles.

The project was found to be highly relevant both in terms of childhood health and education development needs, and identification and treatment of avoidable causes/treatable causes of blindness and vision impairment. The project was also relevant in identifying children with irreversible blindness and low vision for assessment and placement in education systems.

To what extent do achieved results (project goal, outcomes and outputs) continue to be relevant to the eye health needs of the children in the region?

Global trends indicate that overall, the proportion of children aged 0-17 years shall decrease from 32% in 2010 to 25% in 2050. However, East Africa is one of the regions that is expected to face some of the highest growth rates for children under 18 years[12].

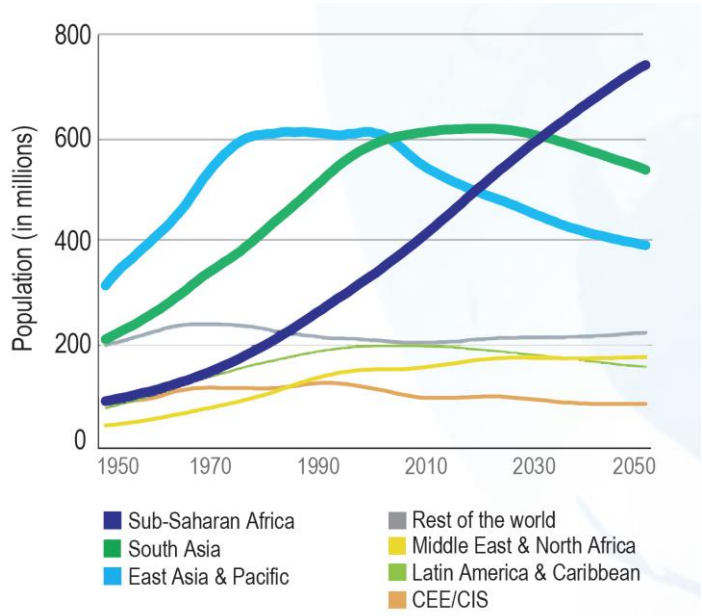
Figure 1 indicates that while the rest of world will show a general reduction, sub-Saharan Africa shall demonstrate a marked increase in childhood population. Similarly, **Figure 2** shows that sub-Saharan Africa shall harbour the largest number of births.

[10] Rob Baltussen, Jeroen Naus, Hans Limburg. Cost-effectiveness of screening and correcting refractive errors in school children in Africa, Asia, America and Europe. Health Policy. February 2009 Volume 89, Issue 2, Pages 201–215

[11] Morjaria P, Minto H, Ramson P, Gichangi M, Naidoo K, Gilbert C. Services for refractive error in Kenya: extent to which human resources and equipment are meeting VISION 2020 targets. Journal of Ophthalmology of Eastern Central and Southern Africa. December 2013

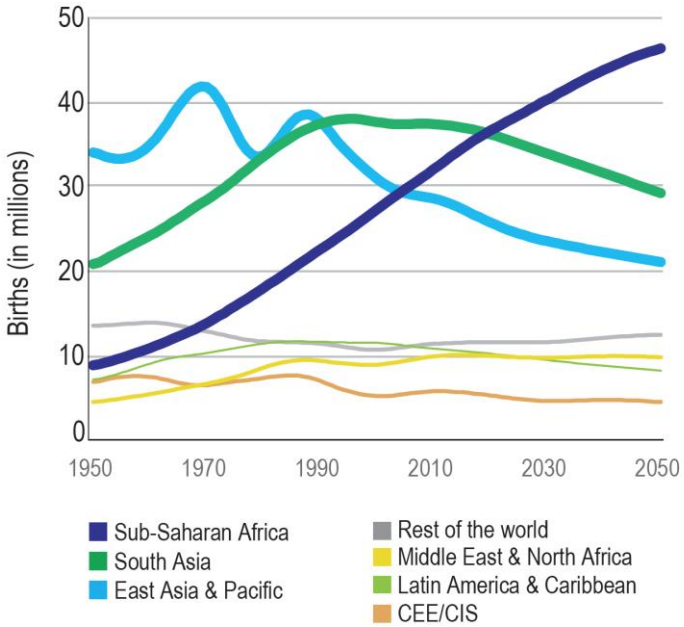
[12] Danzhen You and David Anthony. Generation 2025 and beyond: The critical importance of understanding demographic trends for children of the 21st century. UNICEF, 2012. Division of Policy and Strategy

Figure 1 - Number of children under 18 by UNICEF region



(Source: Danzhen You and David Anthony. Generation 2025 and beyond: The critical importance of understanding demographic trends for children of the 21st century. UNICEF, 2012. Division of Policy and Strategy

Figure 2 - Number of births by UNICEF region



(Source: Danzhen You and David Anthony. Generation 2025 and beyond: The critical importance of understanding demographic trends for children of the 21st century. UNICEF, 2012. Division of Policy and Strategy)

According to UNICEF projections on childhood demographic trends globally by 2025 and beyond[13], the study states the following:

- **1 out of 3 children will be African**. Between 2010 and 2025, the child population of sub-Saharan Africa will rise by 130 million. By mid-century, almost 1 in every 3 children will live in sub-Saharan Africa; in 1950, a century earlier, this ratio was less than 1 in 10. From around 2030, sub-Saharan Africa will be the single region with the greatest number of children under 18 (**Fig 1 and 2**)
- **The biggest absolute increases in national child populations in 2010–2025 will mostly take place in sub-Saharan Africa**: Nigeria (31.6 million), **United Republic of Tanzania (13.1 million)**, Democratic Republic of Congo (10.4 million), **Uganda (8.6 million)**, **Kenya (7.5 million)**, United States (6.6 million), Iraq (6.0 million), Afghanistan (6.0) million, Niger (5.5 million) and Malawi (5.0 million).
- **In percentage terms, the top ten countries to see increases in child populations are all in sub-Saharan Africa**: Zambia (66%), Niger (64%), Malawi (63%), **United Republic of Tanzania (57%)**, Somalia (50%), Burkina Faso (48%), **Uganda (47%)**, Mali (46%), Rwanda (45%) and Nigeria (41%).

A study on child eye health tertiary facilities in Africa[14] indicated that the mean population catchment area for a child eye health tertiary facility was about 9.42 million. Further, the study noted that:

- the mean number of surgeries for congenital and developmental cataract, strabismus, and other conditions was 72.0, 37.1, and 169, respectively, with wide variation between the centres
- overall there were 1.26 operated boys for every girl
- the mean surgical fee charged was US$117
- the presence of a dedicated optometrist, childhood blindness coordinator, and a full-time anaesthetist was associated with higher surgical output

These findings suggest that that the project goals, outcomes and outputs shall increase in relevance especially in sub-Saharan Africa. This implies that greater emphasis and investment shall need to be made by governments and development partners to address the burden of blindness and vision impairment in children.

As part of the project, a research study was conducted on 'The Perceptions of the Seeing is Believing Child Eye Health Programme Training Beneficiaries in Kenya'. The study is in its final stages of report writing. It is hoped that it shall elucidate the extent to which the training that was provided was perceived to be useful and relevant in addressing child eye health issues, and whether it can be replicated elsewhere.

[13] Danzhen You and David Anthony. Generation 2025 and beyond: The critical importance of understanding demographic trends for children of the 21st century. UNICEF, 2012. Division of Policy and Strategy

[14] Agarwal PK, Bowman R, Courtright P. Child Eye Health Tertiary Facilities in Africa. J AAPOS. 2010 Jun;14(3):263-6

Effectiveness

This section presents evaluation findings on the effectiveness of the project strategy and activities implemented to achieve the project objectives.

Key Evaluation Question

To what extent did the Project achieve its overall goal, outcomes, objectives and outputs?

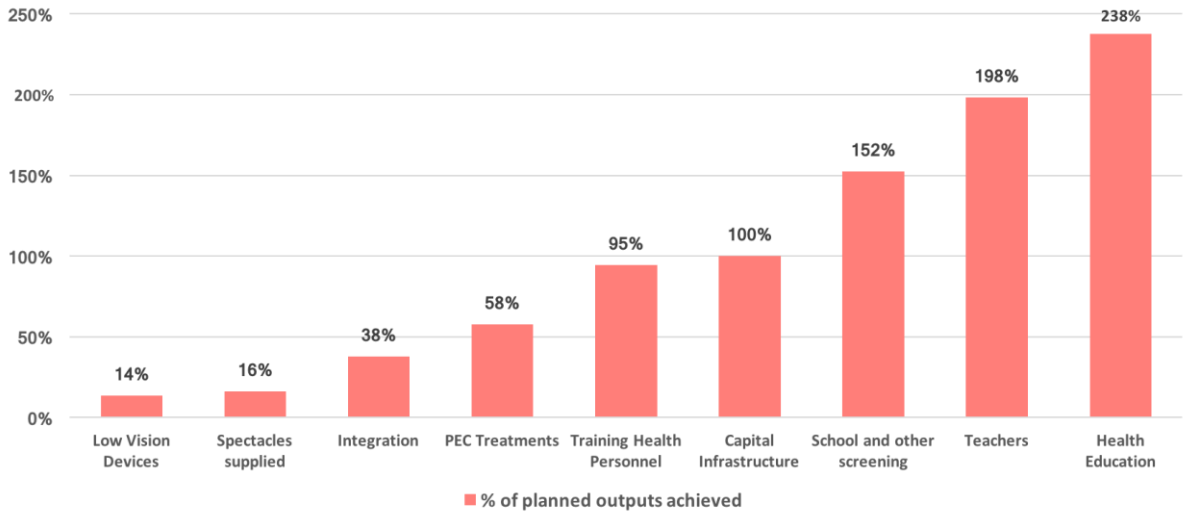
Were the inputs and strategies identified realistic, appropriate and adequate to achieve the results?

The project had several components, which ranged from medical interventions, screening, refraction, health education, integration, training and capital infrastructure. These components demonstrated a variation in terms of overall achievement.

Figure 3 indicates that the project objectives for training, screening, capital infrastructure and health education components achieved a high output rate. This was commendable given the comparatively short duration of the project. Further, the project had screened 4.6 million children, which was a massive increase from its planned target of 3 million children.

However, the supply of spectacles and low vision devices demonstrated a significant underperformance from planned targets. Further, identification and rehabilitation of children with irreversible blindness only achieved two-fifths of the target envisaged.

Figure 3 - Percentage of planned outputs achieved



These findings suggest the following:

- Prevalence estimates used in project planning of how many children could be identified with uncorrected refractive errors, and therefore in need of spectacles, were too high
- Prevalence estimates used in project planning of how many children could be identified with low vision, and therefore in need of low vision devices, were too high
- Prevalence estimates used in project planning of how many children could be identified with irreversible blindness, and therefore in need of rehabilitation and integrated/inclusive/special needs education, were too high

This is further reinforced by sample studies that were undertaken by BHVI towards the latter part of the project to validate the prevalence of refractive errors in school children. The monitoring review found that the prevalence of uncorrected refractive error ranged from 1.1% in Uganda, 1.5% in Tanzania to 3.0% in Kenya. Even with the 2.0% prevalence of refractive errors used for planning, the response rate could have been higher. This suggests that there were other factors that affected the uptake of services. These are further discussed later in this chapter.

The overall strategy of school screening and training of teachers to conduct screening was a sound one. The evaluation findings indicate that teachers responded positively to screening school children and recognised that vision impairment could be an impediment to learning and school performance. One of the challenges (in Tanzania) was that the teachers did not have school eye health cards to use in screening.

An Education Leadership Programme conducted by one of the Consortium partners (Perkins International) trained one teacher from each of the project countries for nine months in the United States. The teachers are currently deployed as follows:

- Kenya – working in an inclusive school
- Uganda – working as a trainer in a college and a teacher in a mission school
- Tanzania – working in a hospital and supports in assessment of children

For teachers working with children with vision impairment, the project strengthened various capacities, which included the following:

- Adaptation of the home and school environment and developing teaching materials using locally available resources to design a special room to accommodate the children
- Many of those trained offered training to parents and fellow teachers in the areas of functional vision assessment, environmental modifications, and communication which has enabled an increase in enrolment of children with visual impairment in their schools
- In addition to offering training to parents, many of the teachers conducted home visits to assist those families with children who cannot go to school encouraging the child to become independent in self-help skills

The equipping of eye units at district hospitals with basic diagnostic equipment and training of optometrists and ophthalmic clinical officers was pointed out as a critical step as it provided the teachers with a referral base closer to their schools. The capacity development of existing eye health facilities and training of different cadres of health personnel was considered an appropriate strategy as it strengthened health workforce capacities for child eye health.

In Tanzania for example, the National Eye Health Programme trained national trainers, who in turn trained regional trainers, who cascaded the training to district trainers. The Primary Eye Care Manual developed by the National Eye Health Programme was used as the learning resource.

The issue of health education is a challenging one. On one hand, the project achieved a high output in terms of health education material distributed. However, on the other, the uptake of spectacles and referrals to regional hospitals was low. This indicates that while the supply side of the project was effective, the demand generation side remained weak. This is discussed later under 'Sustainability'.

And what factors (internal and external) influenced achievement or non-achievement of the planned and unplanned outputs and outcomes? How did these factors influence achievements of the project goal, outcomes and objectives?

There were existing factors that influenced the outcome of the project.

Firstly, the project was delivered through the existing health and education structures and systems in the project countries. This enabled strengthening of existing systems. It also synergised with government health and education policies and plans like the national health, education and disability/inclusion policies, national eye health plans that identified child eye health strategies, and education sector plans to improve enrolments and retention. This provided an enabling environment for the project and government willingness and support to facilitate the execution of the project.

Secondly, there was an operational presence of the project partners in most of the project districts and counties prior to the start of the project. This meant that the partner already had an existing relationship with key officials and therefore it was easier to engage them in project discussions and review meetings.

Thirdly, organisational flexibility enabled the implementing partners to add on training of more teachers as the original targets were found to be inconsistent (low) with needs. This resulted in a larger workforce of teachers trained in vision screening than originally envisaged (almost double the number).

There was one key factor that impacted adversely on the project. Optometrists could not be employed as planned owing to recruitment and deployment processes. In Tanzania for instance, they tried to address the project needs by engaging optometrists from nearby districts to cover the project district. However, the time available for this ad hoc service was not adequate for the project needs e.g. the visiting optometrist provided outpatient services once in two weeks or oftentimes one or two days in a month.

How beneficial were the up skilling courses conducted for the eye health workers? Is there evidence of improved quality of clinical care?

All categories of health personnel who were trained in the project indicated that the training enhanced their knowledge and skills and capacitated them for child eye health as appropriate to their role.

While quantitative data was not readily available at the time of the evaluation, the respondents indicated that the outpatient workload of both children and adults attending the eye units increased during the life of the project. Both primary eye care treatments and referrals by other health workers also increased.

However, all categories of health staff trained indicated that while the training was 'good', there was too much theory and not enough practical training. Further, all expressed the need for refresher training, which did not take place during the project.

One of the key components of the project was training of optometrists and ophthalmic clinical officers or ophthalmic nurses in paediatric refraction/optometry and low vision care at Masinde Muliro University of Science and Technology (MMUST).

The Evaluators noted the following:

- Paediatric optometry and low vision care are advanced clinical skills – the training was more beneficial and effective if the candidate had prior training and experience in basic adult refraction using retinoscopy and was practicing the skill routinely. It was noted that optometrists were able to develop their new skills better than ophthalmic clinical officers, who in turn developed them better than ophthalmic nurses
- Ophthalmic clinical officers who had not undergone the additional refraction module as part of their training or ophthalmic nurses who did not have the exposure to refraction faced challenges in coping with the advanced clinical skills taught
- The duration of two months of training was not adequate and required at least three months
- There was no follow-up or mentorship programme for the candidates to further develop and consolidate the skills learnt (there was only one visit by BHVI staff during the course of the project to support the trainees – while considered useful, most respondents indicated the need for a more structured and sustained mentorship programme)
- The role of MMUST could have been enhanced to provide post-training mentorship and hand-holding. Further, they could have been a research partner

Further, in an organisational review of the skills of the optometrists trained for the project conducted by BHVI, the results revealed that there was great variation in the training and quality of assessment provided by trained optometrists in the respective countries.

- **Kenya** – while the optometrists could perform basic assessment with minor mistakes, most demonstrated major mistakes in distance vision assessment, objective refraction

squint assessment and low vision assessment. Overall, the clinical skills of optometrists in Kenya required further refresher training and upskilling

- **Uganda** – the optometrists could perform basic and advanced assessment with minor mistakes, and demonstrated minor mistakes in distance vision assessment, objective refraction squint assessment and low vision assessment. Overall, the clinical skills of the optometrists in Uganda were noted to be satisfactory
- **Tanzania** – the optometrists demonstrated a variation between minor to major mistakes in distance vision assessment, objective refraction squint assessment and low vision assessment. Overall, the clinical skills of the optometrists in Tanzania required further refresher training and upskilling

This variation in clinical skills of optometrists is likely to have contributed towards the quality and quantity of refractions and low vision assessments during the project. This also meant that the project's training programme could not be achieved at an optimum level.

The Maternal and Child Health (MCH) workers generally found the training very useful and were able to relate it to their routine work of examination of children. They indicated that one day training was not adequate and that it should be at least two days. Further, they also stressed the need for refresher training.

Are the eye units sufficiently resourced to deliver the necessary services?

At all the eye unit sites visited, the Evaluators noted that the unit had all the necessary refraction and diagnostic equipment provided by the project. The equipment had been registered on the hospital stock inventory, was being used and appeared to be in good condition.

In terms of staffing, there was variation in the categories of staff available. While ophthalmic clinical officers or ophthalmic nurses were available as the essential minimum, the eye units faced challenges in terms of staffing of ophthalmologists or optometrists. This was partly due to the overall shortage of these cadres or deployment issues in the respective countries.

The issue of optometrists has been discussed earlier in this chapter. Since many of the optometrists were not examining many children with low vision, either because of low referrals or outpatient attendances, or due to workload for regular refraction services, they indicated that they were losing their skill and competence in low vision care.

The supply chain of spectacles and low vision devices established by the project was still functioning even though the project had ended. Since the numbers of children requiring low vision devices was small, the existing stock was still catering to their needs. In some eye units with established low vision services like the Nakuru County Referral Hospital in Kenya, they were able to procure low vision devices intermittently through the hospital system.

The issue of supply of spectacles is a complex one. **Firstly**, prior to the project, the eye units had established their own supply chain systems through private vendors. **Secondly**, the supply of spectacles from the project depended on a prescription sent from the eye units to

the central facility in each country. This facility then fitted the spectacles and sent them back by courier to the respective eye units or schools for dispensing to the children. The turnaround time varied from one week to one month or more depending on the type of prescription. Further, the project only provided the first pair of spectacles free, especially for children from poor families. **Thirdly**, a number of children would either lose or break their spectacles. Since the first pair had been dispensed free, there was an expectation from the parents for free replacement. Parents of children from poor families could not afford multiple replacement of spectacles lost or broken.

Sustaining a supply chain for spectacles through a central facility is likely to be challenging in the long run, and more efficient and lasting options need to be considered that take into account local supply systems and needs of children from the lower socio-economic strata. The central facility however, **provides a much needed safety net for the children from poor families**. It should therefore be retained, but would need to provide other commercial services to sustain its functionality.

In the last few years, there has been much interest globally on the use of readymade spectacles in school eye health screening programmes. Studies from China[15] and India[16] support the use of readymade spectacles in school based refractive services programmes as they save costs and improve the logistics of service delivery. While the approach and methodology[17] will likely need to be refined depending on the local context, this provides a useful and cost-effective option to consider in future programme strategy.

One of the key issues identified is the poor uptake of referrals. What are the barriers? How can the barriers be addressed? Similarly, how can uptake of referral from one level health facility to the next be improved?

Although the project did not specify any targets for the referrals, the project monitored the referrals. **Figure 4** illustrates the referral patterns. Children referrals to health facilities were by far the largest number, followed by referrals to regional hospitals. The project achieved a commendable referral uptake rate from schools to health facilities of 97%. However, a significant proportion of the uptake (children referred from schools and seen by a health worker) was achieved through outreach activities towards the latter part of the project.

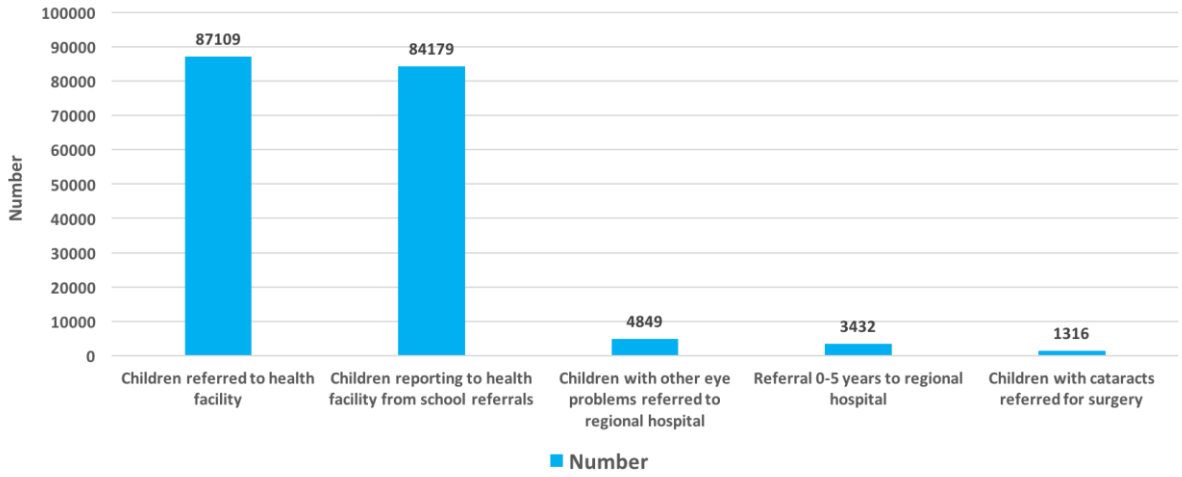
Further, the project managed to dispense 69.5% prescriptions received for spectacles and 71.5% for low vision devices.

Figure 4 - Referral patterns

[15] Yangfa Zeng, Lisa Keay, Mingguang He, Jingcheng Mai, Beatriz Munoz, Christopher Brady, David S. Friedman. A Randomized, Clinical Trial Evaluating Ready-Made and Custom Spectacles Delivered Via a School-Based Screening Program in China. Ophthalmology 2009;116:1839–1845

[16] Priya Morjaria, Jenifer Evans, Kaushik Murali, Clare Gilbert. Spectacle Wear Among Children in a School-Based Program for Ready-Made vs Custom-Made Spectacles in India - A Randomized Clinical Trial. JAMA Ophthalmol. Published online April 20, 2017. doi:10.1001/jamaophthalmol.2017.0641

[17] Priya Morjaria, Kaushik Murali, Jennifer Evans and Clare Gilbert. Spectacle wearing in children randomised to ready-made or custom spectacles, and potential cost savings to programmes: study protocol for a randomised controlled trial. Trials (2016) 17:36. DOI 10.1186/s13063-016-1167-x



One of the project components was to identify children with cataract and refer them to the participating regional/tertiary hospital for cataract surgery. This was pointed out as a challenge by all implementing partners in the BHVI led consortium.

There were three main issues with this approach:

- The implementing partners did not know whether the regional/tertiary referral hospital had any budget available to cater for the free surgeries of the children they were referring – many referrals were told to pay for the services as the facility offering surgical services had exhausted their budget for that period
- The children would often not be operated at the time of the referral but would be placed on a waiting list – this meant several visits to the hospital, the costs of which were challenging for the poor families
- The implementing partners had a challenge following up the referrals and found it difficult to ascertain how many of the referrals had actually been operated

There is more merit in surgical cost being retained by the implementing partner so that they can pay for the surgery of any child referred. This issue is discussed further under 'Consortium'.

Uptake of referrals, especially for tertiary referrals, was cited by respondents as a constant barrier in the three countries. The Evaluators noted several issues that contributed to the low uptake.

The monitoring review conducted by BHVI found that the three commonest causes reported by parents were:

- **Parental awareness** – most eye problems in children do not cause any pain, and therefore parents do not consider them as important. Further, parents did not appreciate the importance of spectacles for their children or the impact on their school performance
- **Parental fears** – the parents were concerned that the cost of spectacles may be too high for them

- **Transport costs** – most parents were concerned about transport costs to bring their child to the hospital, and then for repeated visits/follow-ups

The Evaluators noted other barriers:

- **Community Health Volunteers** – although this category of health personnel were provided orientation about child eye health, they were not facilitated to perform their awareness creation role. These community volunteers participate in several health programmes and there is an expectation of some facilitation or recognition of their work. Their role could have been enhanced by synergising with other health programmes on child health and conducting door to door visits to create awareness, and facilitated by providing them with lunch and community events to recognise their services
- **Contact Teachers** – teachers could have been identified in each school and given the responsibility to take the children to the hospital. While selected teachers were provided training, this role was not clarified or strengthened, nor any responsibility attached or orientation provided for this purpose
- **Hospital/Eye Unit response** – while teachers and parents indicated that most hospitals/eye units were receptive to the children referred from the project, there was a concern that the children were not always prioritised for examination (as was the expectation) and had to wait for long periods in the queue
- **Surgical costs** – one of the challenges faced by the implementers was the issue of surgical costs. The project design had intended that children requiring surgery would be operated free at the regional/tertiary hospitals as funding was available from consortium dealing with tertiary eye care. However, it was noted that oftentimes, parents would be asked to pay for surgery while they had been referred on the expectation of free surgery. The issue was that the tertiary hospital had exhausted their quota of free surgeries and had to charge for any others
- **Referral slips** – the issue of referral slips came up in each country where project stakeholders complained that timely replacement of used referral slip books was a challenge
- **Outreach activity** – although not a sustainable venture, outreach activities were very useful in identifying children with vision problems and providing treatment. This activity occurred late in the project, which would have been better served by initiating this earlier

Efficiency

This section presents evaluation findings on the overall efficiency of the project, the appropriateness of management arrangements, and the topline strengths and weaknesses of the project.

Key Evaluation Question

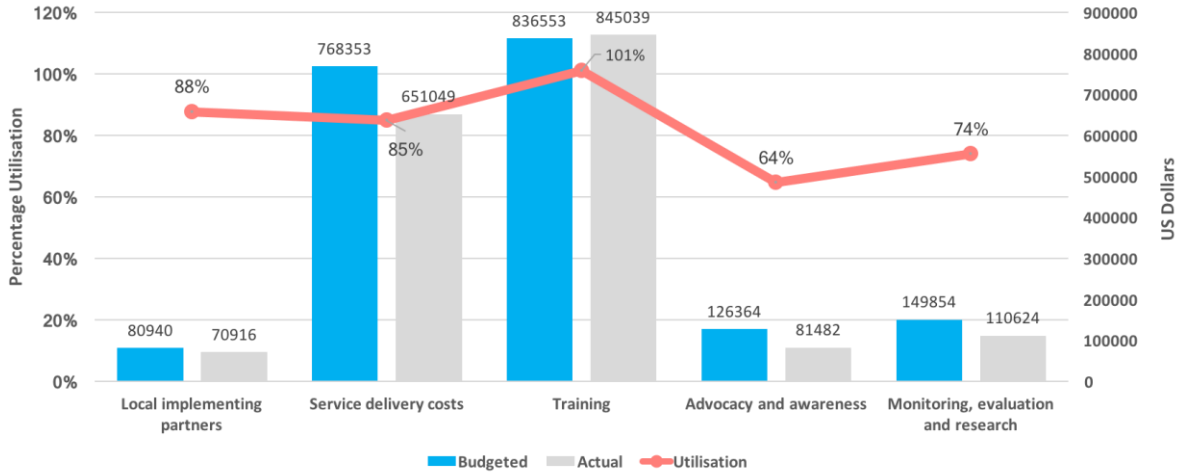
How efficiently and timely has this project been implemented and managed in accordance with the Project Document?

Was the process of achieving results efficient? Specifically did the actual or expected results (outputs and outcomes) justify the costs incurred?
Did project activities overlap and duplicate other similar interventions (funded nationally and/or by other donors)?

Overall, the Evaluators found that the resources were utilised as efficiently as possible. Keeping in view the limited epidemiological data available at the programme design stage, the resources had to go through a reallocation process. With regards to health promotion and communication strategy, the project successfully piloted "vision champion" model and scaled it up. This was an example of a social behavioural change initiative resulting in improved uptake of services. The Evaluators were not able to ascertain in the time available, the extent of the change or its contribution to uptake of services.

Figure 5 illustrates the budget utilisation patterns. It indicates that while costs for local implementing partners, service delivery and training achieved 85% or more utilisation, costs for advocacy and awareness, and monitoring and research achieved less than 75% utilisation.

Figure 5 - Budget utilisation patterns



On further analysis, the following points were noted:

- **Service delivery costs** – the main underspends were in fuel costs, spectacles and medications. These were impacted by supply chain issues of spectacles and late emphasis on outreach activities alluded to earlier
- **Advocacy and community awareness** – most of the underspend was in health promotion and education
- **Monitoring, evaluation and research** – the main underspend was due to delay in research activities planned in the project

In most cases, the Evaluators did not find any instance of duplication or overlap of similar initiatives in the project areas. However, in some areas, there were some programmatic approach issues observed. While the BHVI supported consortium adopted a capacity building approach by training teachers to identify school children with vision or eye problems, one of the second consortium members used vision screeners to identify children with cataracts and other eye problems. They provided them with per diems, which the BHVI led initiative did not. Since the project districts were either similar or in close proximity, this led to expectations among teachers for allowances through cross-communication since their fellow vision screeners were receiving it.

Further, Mwanza region in Tanzania was found to be a convergence point for outreach activities of several organisations. These included BHVI, CBM, Comprehensive Community Based Rehabilitation in Tanzania (CCBRT) and Kilimanjaro Christian Medical Centre (KCMC). In the time available for the evaluation, it was not feasible to ascertain to what extent there was duplication of effort or reporting of patient statistics.

The referral hospital at Sekou Toure (Tanzania) catered for surgical teams visiting from KCMC and CCBRT. Children referred from the BHVI-led project were often delayed for surgery as they were given dates dependent on visiting teams. It was not clear from available reports whether children operated were disaggregated by referring organisation. The BHVI-led team faced challenges in following up referrals to tertiary hospitals.

Could other more efficient ways and means of delivering more and better results (outputs and outcomes) with the available inputs been used and produced better results?

The Evaluators noted that the project design and strategy could have been improved in the following manner:

- **Design stage** – while stakeholder consultation was undertaken for project development, the approach was to present the stakeholders with the strategy for their information and endorsement. Although the stakeholders (government and non-government) appreciated this information sharing, there was a concern that project design and strategy could have been developed in a more practical way with greater ownership had it emerged from the respective countries. Several key stakeholders were missed in the project design who would have been included had the local stakeholders been given the opportunity to strategize based on the concept presented by BHVI. The issue of missed stakeholders is discussed further under 'Sustainability'

- **Baseline information** – the monitoring review conducted by BHVI towards the latter part of the project could have been done at the inceptive stage to establish a more robust and realistic baseline. As a result, planning would have been more appropriate and the monitoring and evaluation framework would be more effective in terms of targets and indicators. Further, the situation analysis report was still not completed until 2015 after which it was felt that it was no longer necessary (Consortium Review Meeting). Situation analysis should have preceded the project design and actually fed into the programme strategy
- **Project duration** – the multi-sectoral, multi-country, multi-component project was diverse and complex and set ambitious targets for itself. The changes that were envisaged in terms of child eye health were challenging to achieve in a four-year time period, especially with no follow-on phase planned. The project reports and interviews indicate that it took 3 years for implementing stakeholders to understand the project and come on board, and when the process for institutionalisation was just beginning, the project ended. The aims and objectives of this scale and scope of project would have been better served by planning an initial five-years phase of institutionalisation, and a second five-years follow-on consolidation phase to embed institutional gains achieved in the first phase. A suggested sequencing plan for the first five-years is shown in **Table 4**
- **Project spread** – although the project did succeed in establishing an operational presence in 20 districts/counties in three countries, by trying to manage project activities within the resources available resulted in the project being spread too thinly. For example, a district/county might have had over 6,000 teachers of whom only a handful (80) were trained. Similarly, the coverage of schools was only a very small proportion to have had any significant and lasting impact. The project design could have focussed on 1-2 districts/counties in each country and delivered the project in depth rather than spread itself too thin. The impact and advocacy potential of such a demonstration approach would have been greater as it would have produced a mass-effect
- **Behavioural change** – one of the cross-cutting objectives of the project was change in attitudes, behaviours and practices among the parents and community, government duty bearers, health and education services etc. While the project incorporated a community awareness and advocacy component, this was mostly dissemination of information. Although the Vision Champions was one good example of a behavioural change process, the project would have benefitted from developing and executing a **social behavioural change communication strategy** with measurable indicators to assess impact and change. This was a vital component that was missing from the project design

Table 4 - Proposed project sequencing plan

Preparatory stage	Year 1	Year 2	Year 3	MTR	Year 4	Year 5	EPE
Planning and Design - 3 months	Inception and orientation phase	Intense activity phase			Embedment phase	Conclusion or Bridging phase	
Conceptualisation by lead organisation Situation analysis Stakeholder analysis Identification of existing health and education structures and systems Develop policy briefs Key stakeholder led project designing Establish exit strategy process	Conduct baseline study Orientation of all key stakeholders identified in stakeholder analysis Develop key training and learning materials Train master trainers Strengthen infrastructure Orientation and sensitisation of duty bearers at key structural levels Initiate social behavioural change communication (SBCC) strategy Annual learning and policy advocacy events	Initiate large scale training of health and education personnel Strengthen service delivery mechanisms Strengthen monitoring and reporting systems Initiate refresher training Annual learning and policy advocacy events			Based on Mid Term Review (MTR) findings, adapt and tweak programmatic activities Continue refresher training Consolidate SBCC strategy Initiate exit strategy plan Annual learning and policy advocacy events	Complete pending activities Continue refresher training Initiate Endline Project Evaluation (EPE) process Post intervention studies Develop policy briefs Conclusion learning and policy advocacy events Planning and bridging for next phase	

How efficient were the management and accountability structures of the project? This will include collaboration with government of Kenya, Uganda and Tanzania MOH and MOE partners

Did the project's management structure, including financial management processes and procedures affect project implementation?

The project demonstrated good examples of management and accountability processes. At the national level, the project lead organisations in the respective countries adopted different approaches depending on the local context. These are highlighted in **Table 5**.

The project had a lead Programme Manager, while each country had a Project Coordinator. In Uganda and Tanzania, the Project Coordinator roles were performed by BHVI staff, while OEU staff took on this role in Kenya. The Project Coordinators appointed for this purpose had a strong programme background and were skilled in stakeholder engagement, joint planning, negotiation and conflict resolution. These attributes proved critical for the success of the project.

While this arrangement was highly satisfactory for the national level, it faced great challenges in planning, coordination, monitoring and reporting at regional, county and district levels owing to the geographic spread of the project.

The project would have benefitted greatly by appointing regional/county level coordinators based in the respective regions/counties to support the role of the Project Coordinators. Local presence would have enhanced the following:

- Regular liaison with local health and education authorities for planning and monitoring
- Coordination with and ownership by various categories of stakeholders in health and education
- More frequent review meetings with health and education stakeholders
- Timely data collection and project reporting
- Support to local data/information collection systems
- Follow-up of referrals and ensuring access to surgery where required
- Raising project profile in the respective region/county

The Evaluators noted that the project identified the appropriate management and coordination levels for engagement and coordination support for the project. These were effective in mobilising beneficiary groups and operationalising a large project in four years' time. However, there were some key stakeholders within these management structures that were not specifically addressed by the project. These are discussed further under 'Sustainability'.

The financial arrangements for the project faced three main challenges:

- The issue of costs available and expiry of quota of free surgeries (discussed earlier)
- The ambitious targets resulted in the project being spread thinly due to the need to work within a limited resource envelope – more efficient use of resources could have been made by limiting the geographical spread and by undertaking the project in depth (discussed earlier)
- Bifurcation of project budget by Consortium – discussed later under 'Consortium'

Table 5 - Management and coordination arrangements of project

	Kenya	Uganda	Tanzania
National level	Formal endorsement and support for project obtained from Ministry of Education (Directorate of Special Needs Education). Formal support obtained from the Ophthalmic Services Unit of the Ministry of Health. Formed a country coordination committee for the project	Support from the Director General Health Services through the Disability Prevention and Rehabilitation Unit (also responsible for prevention of blindness and vision impairment) Support and communication obtained from the Focal Person on Special Needs Education in Ministry of Education	Letter about project initiated from Permanent Secretary's health and education to corresponding Regional Administrative Secretaries, Regional Medical Officers and Regional Education Officers Informal Advisory Committee was established at national level that was chaired by the National School Health Coordinator. Representatives were invited from the Prime Minister's Office Regional Administration and Local Government, National Eye Care Committee, School Health Programme focal persons/managers from both health and education
Regional/County level	Coordinated with the County Health and Education Officers – informal mechanism		Coordinated with the Regional School Health Coordinators of both health and education – informal mechanism
District level/Sub-county level	Coordinated with the Heads of the respective Eye Departments – informal mechanism	District level Memoranda of Understanding developed with the following: ▪ Chair – Local Council-5 ▪ Chief Administrative Officer ▪ District Health Officer ▪ District Education Officer	Coordinated with the District Medical Officer, District Education Officer, District School Health Coordinators of both health and education – informal mechanism

What are the strengths, weaknesses, opportunities and threats of the project's implementation process?

On a review of the topline strengths, weaknesses, opportunities and threats, the Evaluators noted the following themes, which are summarised in **Table 6**.

Table 6 - Topline analysis of strengths, weaknesses, opportunities and threats

Strengths	Weaknesses	Opportunities	Threats
Existing Systems ▪ Project developed on strengthening existing health and education systems ▪ Focussed on building capacities of existing workforce in health and education **Infusion** ▪ Project activities infused through government administrative structures and systems ▪ Project approach validated concept of training teachers in vision screening, building capacities of health personnel in child eye health, and strengthening primary and secondary health facilities as portals of service delivery for child eye health **Recognition** ▪ Child eye health recognised for integration in the national eye health, and school health strategies and plans	**Planning and Management** ▪ Insufficient clarity about roles of different organisations especially implementing partners ▪ Staffing insufficiency to manage and coordinate project **Institutionalisation** ▪ Inadequate streamlining of institutional arrangements – several critical stakeholders missed e.g. Head Teachers ▪ Project was too output driven with less emphasis on institutional development for change and impact ▪ The numbers of education and health personnel trained in child eye health were too small to make a large scale sustainable and institutional impact	**Policies and Sector Plans** ▪ Collaboration opportunities and deriving synergy from the national inclusive education, school health and disability policies and strategies ▪ Closer alignment with and contribution towards country specific health and education sector plans ▪ Alignment with and integration in the Regional/County Health and Education Plans ▪ Closer collaboration and working relationship with the regional, county and district health management teams **Catalyse and Synergise** ▪ Opportunity to catalyse development of sub-national / regional / county level eye health plans and incorporate child eye health in them ▪ Opportunity to synergise with other health and education initiatives e.g. nutrition programme; water, sanitation and hygiene programme	**Capacities** ▪ Transfer of staff trained ▪ Lack of continuing professional development and mentoring of optometrists and other ophthalmic personnel trained in paediatric optometry and low vision can result in weakening of skills and competencies gained **Conflict of interest** ▪ Consortium members may not continue with child eye health approach (of this project) and revert back to their own approaches **Referral and Supply Chains** ▪ Referral chain to non-government funded tertiary hospitals may not continue due to lack of dedicated funding for children referred from government hospitals for eye surgery ▪ Lack of a commercially driven initiative by central spectacle supply facilities can result in sustainability challenges

Impact

This section presents the evaluation findings of the impact of the project on the primary and secondary beneficiaries, communities, and at policy level.

Key Evaluation Question

To what extent did the project have positive, intended or unintended impact on the primary beneficiaries? What are the key changes in the lives of those children? Please describe those changes

What about impact on secondary beneficiaries including parents/guardians, families and the community?
Were there any unintended consequences (positive and negative) resulting from the project on both primary and secondary beneficiaries? What about on other stakeholders such as private practice eyecare personnel?

Overall, the project had a positive impact on health and education beneficiaries in terms of knowledge gained about eye health and capacity to screen and refer for further examination and treatment. The key findings are summarised in **Tables 7-9**.

While all appreciated the training provided, there were **four cross-cutting themes** noted across all trainings:

- The training programme was predominantly theory with some practical work – the beneficiaries would have preferred more exposure to practical work (especially screening children rather than just learning vision screening among themselves)
- The training duration was short and should have been at least one day more for each group
- All groups expressed the need for supportive supervision as none was provided during the project (except one mentoring visit for the optometrists and ophthalmic clinical officers trained at MMUST)
- All groups expressed the need for refresher trainings

One of the unintended 'negative' consequences of the project was that it missed to train head teachers (except in Uganda). While most head teachers were supportive of the screening programme, all expressed their dissatisfaction about not being oriented first about the child eye health programme. This point was also reinforced by the education officials at various levels who indicated that orientation training of head teachers was a critical step in any initiative involving the education sector. In Uganda, the project trained head teachers who were more knowledgeable about the project and facilitated screening by teachers. In Kenya and Tanzania, some of the teachers trained for screening were not allowed to perform screening during school hours and had to complete the task either after school or during lunch break.

With regards to the parents, the Evaluators found mixed feedback. Parents interviewed during the evaluation phase indicated that they were not knowledgeable about the project and came to know about it when their children were prescribed spectacles or had to be taken for further eye examination. They did, however, note that their children began to perform better at school when they used their spectacles. This point was also noted by the teachers.

The issue of parent involvement and awareness is related to the orientation of head teachers as it is their responsibility to disseminate information to parents e.g. parent teacher meetings. Further, the absence of a social mobilisation and behavioural change communication strategy also meant that community sensitisation and participation was limited.

Vision champions were noted as a highlight of the project as it mobilised child to child interaction. Many indicated that they had used their new skills to test other family and community members in their village. All expressed an interest to continue with the role. However, it worked best when children from senior classes were selected for this responsibility. Vision champions from lower classes were not as effective and were the subject of teasing by other children especially from senior classes. Further, the training of vision champions was not a universal project strategy and was introduced in a proportion of schools and towards the latter half of the project.

The children who were prescribed spectacles presented another challenge. Some indicated that they benefitted enormously from the spectacles received, while others indicated that they perceived no appreciable difference. Some of the students dispensed spectacles did not have them at the time of the interview. They cited breakage or loss as reasons for not having them. Some teachers complained of waiting for many weeks to months for the spectacles. While this complaint was not expressed by all teachers, supply chain issues were noted with varying delivery times. A project of this scope would have benefitted from periodic and random spectacle compliance studies amongst students to monitor quality and ascertain appropriateness of the prescription.

It is pertinent to note that the implementation stage was not long enough to measure long-term impact. The impacts indicated further in this section relate more to short and intermediate term impacts.

Table 7 - Health Beneficiary Groups

Beneficiary Group	Knowledge	Training	Capacitated by project
MCH staff	▪ Improved knowledge on eye health, screening, referral, link with MCH activities	▪ Learnt to do screening, community awareness, health education, and reporting ▪ 3 days duration – programme too much for time available	▪ Eye health education and hygiene ▪ Detecting eye problems ▪ Screening and referral ▪ Apply eye ointment ▪ Instruct mothers to identify eye problems in children ▪ Train CHVs/CHEWs
CHVs/CHEWs	▪ Teaching of children and mothers on eye health hygiene ▪ Screening and appropriate referral ▪ Eye health education to the communities	▪ Learnt to do screening for eye problems ▪ Impart eye health education ▪ Role of nutrition for eye health ▪ Social impact of blindness ▪ Adequate knowledge but need more learning materials	▪ Visiting communities for screening ▪ Imparting education on eye health and hand washing

(CHVs – Community Health Volunteers; CHEWs – Community Health Extension Workers; MCH – Mother and Child Health)

Table 8 - Education Beneficiary Groups

Beneficiary Group	Knowledge	Training	Capacitated by project
Teachers of sighted children	▪ Gained knowledge about importance of eye health and good vision in school children ▪ Knowledge about face washing and safe playing ▪ Knowledge about referral to eye units	▪ Learnt to screen for eye problems and refer ▪ Counselling of students and parents about eye health ▪ 1 day duration – training too wide and not enough time to learn	▪ Screening for vision problems and referring appropriately ▪ Training vision champions ▪ Counselling of parents and children with vision impairment
Teachers of children with vision impairment	▪ Knowledgeable about eye health and screening for vision problems in learners	▪ Learnt about eye health and screening ▪ Hygiene and eye health ▪ 1 day duration – too short to learn	▪ Identifying, screening, and referral for eye check-up ▪ Taking care of devices such as spectacles ▪ Counselling to teachers, pupils and parents ▪ Advise children on how to take care of their eyes during school and out of school ▪ Coordinating from school to e.g. EARC office, to hospital and to parents ▪ Networking with other teachers ▪ Telling Vision Champions to discuss challenges they face while screening
Head Teachers	▪ Learnt about project from teachers who were trained	▪ No training received	▪ Mostly supportive role to teachers trained for screening ▪ Coordination with school health and education authorities ▪ No active involvement in project

(EARC – Education Assessment Resource Centre)

Table 9 - Parents and Children Beneficiary Groups

Beneficiary Group	Knowledge	Orientation	Capacitated by project
Parents of children with vision impairment	▪ Not much knowledge about the project or screening and referral ▪ However, have learnt that good eyesight is important ▪ Now know the importance of assisting a child with visual problems to participate in school ▪ Eye problems can affect the performance of the child	▪ No specific orientation or counselling received ▪ However, noted that children's school performance improved with use of spectacles	▪ No support or facilitation provided to children or parents in use of any devices by the children
Children accessing low vision technology	▪ Learnt about screening from teachers	▪ Oriented on use of devices	▪ Screened for vision problems ▪ Provided spectacles with which can see better ▪ Better placement in class for improved school work
Children who received spectacles	▪ Learnt about screening from teachers	▪ No specific orientation received	▪ Use spectacles for school work ▪ Can see better and school performance improved
Vision Champions	▪ Gained knowledge about need to eat balanced diet, risk of eye injury in fighting ▪ Screening and referral of children with eye problems to the teacher ▪ Know how to protect the eyes, not to look directly at the sun, not to self-medicate, and to seek expert eye care	▪ Trained by teacher to screen using screening tools ▪ Used booklets provided by the project to learn more about screening	▪ Can now provide eye health education to fellow students and family members ▪ Can identify some eye problems and refer to the teacher ▪ Can screen for vision check

What key changes have come about at community level? e.g attitude and knowledge of child eye health, are there any gender biases when following through referrals for their children?

This objective was challenging for the Evaluators as there was no baseline or post-intervention study or information about the knowledge, attitudes and practices regarding child eye health at community level. Indirect information about community attitudes and practices was obtained from the various beneficiary group interviews.

The information obtained from the interviews and field visits indicates the following:

- Parental orientation and sensitisation about the project was very limited – most parents came to know about the project after screening had been done
- Parents only took the eye problems in their children seriously if they complained of pain in the eyes
- Costs involved in taking the child to a health facility or for replacement of a pair of spectacles were of major concern to the parents
- Parents had negative beliefs about use of spectacles in children – they believed that the use of spectacles would worsen their child's vision

However, referral data obtained from project reports indicates that 97% of children who were identified for referral to a health facility from the school screening process actually turned up at the health facility or were examined by a health worker. While this was mostly due to the motivation of teachers who accompanied the children to the health facility or through the outreach activity, this also indicates parental acceptance of the need for examination of their children for eye problems.

Project data reveals that there were no significant overall gender differences in children brought to health facilities following screening, with Kenya and Tanzania showing a 1:1 female to male ratio. Uganda had a positive female preponderance of 1.2:1.

The training of CHVs/CHEWS, teachers and other health personnel likely contributed towards community awareness, although it was not possible for the Evaluators to quantify or qualify the extent of this change.

What key changes have come about at school, policy level in MoH and MoE as a result of advocacy?

The project sustained its advocacy and eye health education over the 4 years. More community members are now aware of the importance of child eye health. Government officials and policy makers in the Ministries of Health and Education in the three countries are also now more aware of the need and recognise the importance of child eye health. They are keen to see that the services continue following the end of the project.

During the closeout meeting with the County Directors of Education in Kenya, the Director General of Education urged all to take up the responsibility of keeping alive the project activities in the respective counties. She emphasised that the Ministry of Education was keen to see how the county education offices through the existing structures such as the Quality Assurance and Standards, and Educational Assessment and Resource Centres offices could work to sustain the services. She underscored key activities that need to be addressed namely:

- Screening in all schools in the county
- Follow-up of children referred to the eye units
- Eye Health awareness creation
- Provision of assistive devices

- Placements for children with vision impairment in special and integrated schools
- Training of more teachers to conduct screening in all schools in the counties
- Activities' supervision, coordination, data collection and reporting

The above points are very similar to those that have been included in Tanzania's new school health policy document for Tanzania Mainland. It is envisaged that the Collaborative Advocacy Strategy for Eye Health document for Uganda that was launched during World Sight Day will increase the profile and awareness of child eye health issues at policy level. The document was printed and copies were distributed to all key ministries and all districts of Uganda.

Although the project was too short in duration to produce large scale institutional impact, successful advocacy and engagement by project partners has led to some key institutional changes. These are summarised below by country.

Kenya

- Child eye health indicators have been included in the District Health Information System (DHIS)
- The National Eye Health Plan 2012-2018 has a component of childhood blindness – the child eye health project helped operationalise this strategy. Further, the child eye health project catalysed the establishment of a Technical Working Group on child eye health under the National Eye Health Programme.

Uganda

- At the time of the project, the School Health Policy was being reviewed. The child eye health project successfully advocated for school screening for eye health to be integrated in the new school health programme policy (which is close to the final draft)
- Low vision devices are now tax exempted if imported by the Uganda National Association of the Blind
- The National Eye Health Programme previously had no advocacy strategy. The child eye health project triggered the development of a '**Collaborative Advocacy Strategy for Eye Health 2016 – 2020 – A Uganda free from eye problems**', which is now an official government document. The document also highlights the importance and advantages of integrating child eye health into the National School Health Programmes, Maternal and Child Health (MCH) Programme and the broader development and disability agenda
- The child eye health project was used to strengthen the eye health component of DHIS. The piloting of the International Agency for the Prevention of Blindness database is now in its second phase. The National Eye Health Programme has adopted the database. The Child Eye Health project contributed to development of the database. As a result, the DHIS has increased the number of eye health indicators from 2 to 9

Tanzania

- The draft School Health Policy now includes child eye health. The new draft National School Health Policy and Strategic Plan includes references to re-establishment of school

health clubs, use of vision corridors as a self-screening tool, and the role of Vision Champions

- Spectacles and low vision devices are now included in the national Medical Stores Department catalogue for special items and are part of the essential medicines list

Are any external factors likely to jeopardise the project's direct impact?

The Evaluators noted that there were several external factors that could be used to enhance project impact. There is now a growing awareness about child eye health among health and education officials, who are more supportive of an extension or new phase of the project. Further, the learning from the project can be used to improve future project design and create more ownership and lead to institutional change. In each of the project countries, policies and sector strategies and plans are now being reviewed for compliance with SDGs. New policies and strategies are being developed for school health, inclusive education and disability. These present an opportunity for focussed engagement with the key stakeholders for incorporation of child eye health components as appropriate to the respective government priorities, policies, strategies and plans.

In the absence of a continuation/extension or new phase of the project, the gains made in this project are at risk of being dissipated or lost. This is partly due to the small number of persons trained in the various beneficiary groups to be able to sustain a lasting change.

Further, health and education policy/strategy revisions and devolved sector planning processes in the project countries present opportunities to enhance integration of child eye health. If these opportunities are not availed, this is likely to lead to loss of momentum gained and goodwill generated by the project.

Sustainability

This section highlights key findings relating to the sustainability aspects of the project, stakeholder dynamics that impacted on the project, the exit strategy, and capacities strengthened for continuity of child eye health activities.

Key Evaluation Question

Local ownership; to what extent (breadth and depth) is local ownership evident? Assess the partnership levels and relationship between the project management (consortia) and the implementing partners, mainly the Ministries of Health and Education.

Were there any positive or negative consequences resulting from this partnership and relationship?

The project generated considerable local ownership. There was an appreciable level of acceptance by all health and education officials interviewed by the Evaluators. The project was launched at a time when the devolution process was being implemented in Kenya, while in Uganda and Tanzania, it aligned itself with the devolved structures. The Ministries of Health and Education in all three countries embraced the project and lent their administrative support to facilitate the execution of the project.

The project fostered much closer collaboration between health and education at national and sub-national levels and laid the foundation for future collaborative programming and monitoring. The project reinforced the role of Education Assessment Resource Centres (e.g. in Kenya) and has identified an important role for them in supporting inclusive education.

While there were no specific negative consequences, concern was expressed by the health and education authorities of the need to involve the different tiers/structures of the two sectors in the planning and design of the project as it would have led to greater ownership and institutionalisation.

The health and education authorities viewed child eye health as a continuum of care/services and preferred a unified consortium approach.

Assess the sustainability potential of the project in the following areas:

- ***Ability of the relevant Ministries and health facilities to continue offering the services with the same level of quality after December 2016. Consider political, financial, institutional, economic social and/or environmental issues.***
- ***Potential for replication or scaling up the CEH model by either the Ministries or any other stakeholders. What would be the probable implications of scaling up in terms of costs, cost-effectiveness, or efficiency?***

The Evaluators assessed the extent to which the project had 'penetrated' the structures for health and education. The findings indicate that the project engaged with the national and sub-national structures. It obtained formal approval and endorsement from the national

authorities in health and education. It also received support and facilitation from the sub-national structures. However, the relationships and institutional arrangements established were mostly of an informal nature and did not integrate in or formalise with any existing planning and coordination mechanisms. As a result, several key stakeholders were missed whose active participation would have led to a higher probability of sustainability and continuity (**Tables 10-12**) (underlined).

Table 10 - Key Stakeholders - Kenya

Stakeholders	Education	Special Needs Education	Health
National	▪ Ministry of Education ▪ Teacher Services Commission ▪ Kenya Institute of Curriculum Development	▪ Directorate of Special Needs Education ▪ Director Quality Assurance and Standards	▪ Ministry of Health – Ophthalmic Services Unit
County	▪ County Director of Education ▪ County Director of Teacher Services Commission ▪ County Quality Assurance Education Officer	▪ Education Assessment Resource Centre Coordinator	▪ Chief Officer of Health ▪ County Director of Health ▪ County Director Planning and Administration ▪ County Ophthalmologist ▪ County Nutritionist ▪ County Nursing Officer ▪ Health Records Officer
Sub-County	▪ Sub-County Director Education ▪ Sub-County Director Teacher Services Commission ▪ Quality Assurance Education Officer	▪ Education Assessment Resource Centre Coordinator	▪ Sub-County Director Health
Zone	▪ Curriculum Support Officer ▪ Head Teachers	▪ Special Needs Education Teachers	▪

(Underlined – formal orientation/training missed in project, or engagement missed in project)

Table 11 - Key Stakeholders - Uganda

Stakeholders	Education	Special Needs Education	Health
National	▪ Ministry of Education and Sports ▪ Director Teacher Training, Ministry of Education ▪ National Curriculum Development Centre (SNE Unit) ▪ Uganda National Examination Board	▪ Special Needs and Inclusive Education Department, Ministry of Education and Sports	▪ Ministry of Health ▪ Directorate for Planning and Development (including eHMIS) ▪ Directorate of Clinical and Community Health Services ▪ Department of Nursing, Ministry of Health ▪ Disability Prevention and Rehabilitation Section, Ministry of Health
District/County ▪ Local Council ▪ Chief Administrative Officer	▪ District Education Officer ▪ District Inspector of Schools (in-charge of SNE)	▪	▪ District Health Officer ▪ District Health Management Team ▪ Hospital Board ▪ Statistical Officer ▪ District/County Eye Unit
Sub-County	▪ Sub-County Inspector of Schools ▪ Teacher Coordinating Tutors ▪ Head Teachers	▪	▪ Health Service Delivery Team ▪ Health Unit Management Committee/Hospital Board

(Underlined – formal orientation/training missed in project, or engagement missed in project)

Table 12 - Key Stakeholders - Tanzania

Stakeholders	Education	Special Needs Education	Health
National	▪ Prime Minister's Office Regional Administration and Local Government – Deputy Permanent Secretary Education ▪ Ministry of Education ▪ National School Health Programme Focal Person - Education ▪ Tanzania Institute of Education ▪ National Examination Council of Tanzania	▪ Directorate of Special Needs Education	▪ Prime Minister's Office Regional Administration and Local Government – Deputy Permanent Secretary Health ▪ Ministry of Health – National Eye Care Unit ▪ National School Health Programme Focal Person - Health
Region ▪ Regional Commissioner ▪ Regional Administrative Secretary	▪ Regional Education Officer ▪ Regional School Health Coordinator - Education	▪	▪ Regional Medical Officer ▪ Regional Health Management Team ▪ Regional School Health Coordinator – Health ▪ Regional Eye Care Coordinator
District ▪ District Executive Commissioner ▪ District Councillors – Urban and Rural ▪ District Executive Director	▪ District Education Officer ▪ District School Health Coordinator – Education ▪ District Planning Officer	▪ Special Needs Assessment Centre	▪ District Medical Officer ▪ Council Health Management Team ▪ District School Health Coordinator – Health ▪ District Eye Care Coordinator ▪ Reproductive and Child Health Coordinator ▪ District Planning Officer ▪ Health Facility Management Team
Ward ▪ Ward Councillor ▪ Ward Executive Officer ▪ Ward Development Committee ▪ Village Executive Officers	▪ Ward Education Officer ▪ Head Teachers ▪ School Health Teachers	▪ Special Needs Education Teachers	▪

(Underlined – formal orientation/training missed in project, or engagement missed in project)

The project has laid the ground for continuity of some of the components. These include the following:

- **Service Delivery**
  - Primary Health Care services – these are likely to continue providing primary eye care services, at least by the staff trained by the project
  - District Eye Unit – shall continue to offer refraction services where staff are in place

- Optical services for spectacles and low vision devices – the central facility can provide spectacles to the poor provided it has an income generation activity to be able to subsidise/cover costs for dispensing spectacles and low vision devices to children from poor families. In addition, National Health Insurance Schemes can also cater for spectacle costs (only for principal members)
- Surgery – the surgical services would continue, but costs to parents would still be a problem for poor families as non-government referral hospitals would charge for services

- **Screening at schools** – some teachers are likely to continue screening on their own volition (self-motivation). However, in the absence of definite screening directives from the Ministries of Education, and absence of any refresher training, the other teachers trained, due to ongoing pressure of work, are likely to stop conducting regular vision screenings of school children
- **Role of Masinde Muliro University of Science and Technology** – the training modules developed at MMUST which were used for training optometrists, ophthalmic clinical officers and ophthalmic nurses have been taken up by the university as regular training modules and are being run by the university even after the end of the project. So far, two trainings outside the project have been conducted by MMUST as a regular university calendared activity. Historically, training in low vision and paediatric optometry used to be non-government based. However, the project effectively institutionalised the training in a state university
- **Role of Education Assessment Resource Centres** (e.g. in Kenya) – these are more responsive after the project and can play a major role in ensuring continuity of vision screening in schools. However, they would need to develop a programme for screening. Further, any future programme strategy would need to capacitate EARCs, as this aspect was not included in the project strategy
- **Teacher training and skills in visual impairment** – officers of EARCs receive training and skills development in visual impairment, which can be enhanced. Further, in Kenya for example, the Teachers Service Commission (TSC) had 6-15 children with vision impairment per teacher. The TSC has now planned to increase the number of teachers and aim for one teacher per one child with vision impairment
- **Early Childhood Development Education** – curricular reform for ECDE is currently taking place in the three countries at various levels. This provides a good opportunity for engagement of the national institutes/centres for curriculum development by international partners. For example, a curricular reform process is currently under way by the Kenya Institute of Curriculum Development, which uses a standard curriculum development cycle[18]
- **Provision of Technology** – there are existing mechanisms for supply of technology in the project countries.
  - For example, in Kenya, the National Council of Persons with Disability is mandated to supply assistive devices. Further, the low vision project of the Kenya Society for the Blind (KSB), and a similar project of CBM at Kikuyu Hospital also provides low vision

[18] https://www.kicd.ac.ke/images/corpcomm/currdevcycle.pdf

devices. Further, the recent Government Digital Literacy Programme can address some of the needs of children with visual impairment

- Previously, the optical workshop at the Kenya Society for the Blind used to outsource fitting of spectacles. The project capacitated them to perform fitting in-house. KSB is piloting establishment of satellite optical services at county level. Three pilots are currently underway at Huruma sub-county hospital in Eldoret county, Narok County Hospital, and Bomet sub-county hospital in Kericho county. KSB maintains the account, while the hospital administration operates the account which can only be used for eye care. KSB can supply spectacles and low vision devices to needy patients
- In Tanzania, optical services continue to be provided by the optical workshops at the regional hospitals in Mwanza and Mbeya
- In Tanzania, the Ministry of Education purchases some low vision devices and white canes. It has planned to distribute 1000 white canes and has just tendered for low vision devices
- In Uganda, the optical workshop established at Entebbe Hospital with the support of Light for the World continues to provide optical services and has a team that can cater to large workloads

The project has a good potential for replication.

Firstly, it has established a programme approach implemented across three countries in at least 20 counties and districts. The respective Ministries of Health and Education now have a **reference point** for child eye health. They are sensitised about the project components and view it as synergistic to the national health and education sector strategic plans. Therefore, there is an opportunity to pursue further engagement with the health and education authorities to replicate the project in depth in fewer areas to establish a demonstration approach for child eye health that can be taken to scale e.g. in a region/county/district.

Secondly, the three countries are at various stages of devolution, with Kenya as the recent entrant, and Tanzania and Uganda being more experienced in this regard. The status of devolution is as follows:

- **Kenya** – health devolved to counties, but education still a central government responsibility (except for pre-primary and adult education which is county level)
- **Uganda** – both health and education devolved to district councils
- **Tanzania** – health has joint responsibility between central and local government (regional and district); pre-school and primary devolved to regions and districts, while secondary education has joint responsibility between central and local government – all other education under central government

The devolved administrative units are in the process of developing their new sector strategic plans e.g. '**County Health Sector Strategic and Investment Plans**' or the '**County Integrated Development Plans**' in Kenya; or the '**Comprehensive Council Health Plans**' in Tanzania; or the '**District Health and Education Plans**' in Uganda. The learning from this project needs to

feed into these planning and development processes to incorporate child eye health components in the revised plans.

Thirdly, there is anecdotal evidence from the project that children with vision impairment exist in schools at present, and that correction of their vision with spectacles improves their school performance. Further, the Ministries of Education are reviewing/revising their inclusive education policies and strategies for special needs education vis a vis inclusive education. This provides an appropriate strategic entry point to incorporate child eye health components in revised sector/sub-sector strategies. There is great merit in documenting the improvement in school performance when children are provided spectacles or low vision devices.

In Tanzania, the Ministry of Education has developed an assessment guide to be used by a team of specialists in special needs education. The initial plan is to roll it out in 2 Wards per region. Further, the National Strategy for Inclusive Education is ending in 2017 and will then be revised from 2018. This provides a good opportunity for engagement and to support the consultative process for the new National Strategy for Inclusive Education.

Fourthly, the project has laid the foundation for a longer term programme. Even though the project has ended, BHVI has taken up child eye health as an organisational programme initiative.

How are the achieved results, especially the positive changes generated by the project going to be sustained after this project ends?

- ***What are the key factors that will require attention in order to improve prospects of sustainability of Project outcomes and the potential for replication of the approach?***

Some of the points have been covered earlier in this section on 'Sustainability'.

In order to reinforce/improve prospects for sustainability, the following strategic actions are suggested and complement points covered earlier:

- Continue with and strengthen the linkages and relationships developed at national and sub-national levels especially the regions, counties and districts
- Incorporate child eye health in other programme areas of eye care international non-governmental organisations to maintain gains
- Strengthen other existing partnerships of eye care international non-governmental organisations with Ministries of Health and Education to advocate for child eye health
- Engage with and support the school health policy and strategy development/revision process and advocate for inclusion of child eye health
- Engage with the curricular reform process to incorporate teacher training in screening for eye health
- Support the national and sub-national eye care planning processes to incorporate child eye health components

- Engage with the health and education information systems to support the incorporation and reporting of child eye health indicators in these information pathways

How effective were the exit strategies, and approaches to phase out assistance provided by the project

- ***Could these have been planned in a better way leading to a more lasting effect?***

The project close-out and planning of the handover was done jointly with the Ministries of Health and Education. In these close-out events, the project was recognised for its merits in highlighting eye health issues in children and providing programmatic options to address these. This recognition generated increased demand from the authorities for continuation and extension of the project.

The point about the project ending just when stakeholders were coming on board has been alluded to earlier indicating a pre-mature exit before embedment could take place to the extent envisaged.

The exit strategy adopted by the project was one of handing-over in the last six months of the project. It would have been more appropriate to have developed an exit strategy through participatory planning with key health and education stakeholders at the time of project design so that transitioning of ownership could have been institutionalised in a phased manner (refer to **Table 4**).

How were capacities strengthened at the individual and organizational level (including contributing factors and constraints)?

The capacities that were strengthened are summarised in **Tables 13-14** below. These should be reviewed together with **Tables 7-9** about capacities of different beneficiary groups, which complement **Tables 13-14**.

Table 13 - Capacities strengthened at individual level

Individual Level	Capacities	Contributing factors	Constraints
Training of Trainers – Health (ophthalmic clinical officers, ophthalmic nurses)	Vision screening and primary eye care for children	Available health workforce to train in the form of primary health care workers, mother and child health personnel, community health volunteers, community health extension workers	Training supply driven but not institutionalised within existing training programmes of various cadres
Training of Trainers – Education (school health teachers, EARC coordinator)	Vision screening and eye health education	Available education workforce to train in the form of school teachers, school health teachers, special needs teachers	Training supply driven but not institutionalised within existing/in-service training programmes of teachers
Optometrists, ophthalmic clinical officers	Paediatric optometry and low vision	Trained optometrists, ophthalmic clinical officers etc available for further training at Masinde Muliro University of Science and Technology	Optometrists fared better in internalising new knowledge and skills, but face placement and deployment challenges

Table 14 - Capacities strengthened at organisational level

Organisational Level	Capacities	Contributing factors	Constraints
Health facility	Diagnostic and clinical assessment equipment provided Staff capacities strengthened in child eye health	Existing eye units at health facilities for strengthening services Already deployed staff trained by project	Eye units capacitated do not have a uniform staff structure – some have ophthalmologists, optometrists and ophthalmic nurses; while others only have an ophthalmic nurse
School	Vision screening and eye health education	Existing education facilities and responsive education environment	Vision screening tools and eye health education material not enough for large scale coverage Few schools capacitated out of overall population of schools in project areas
Central facility for spectacles and low vision devices	Provided an inventory for use in the project	Existing central facilities were capacitated – Kenya Society for the Blind in Kenya, Optical workshop at Entebbe Hospital in Uganda, and a BHVI supported facility in Dar es Salaam	Inventory was to be provided free. After the end of the project, patients would need to pay for service. There may be conflict of interest with local optical dispensing options already established prior to the project
Implementing Partner (eye care international non-governmental organisation)	Networking and relationship building with health and education authorities Developed experience of working with the education sector	Already had a working relationship with health and education authorities that was further strengthened by the project, while new ones were also established	Continuity of child eye health approach in programme areas dependent on funding availability

One of the key strengths of the project was that it developed the child eye health concept around the existing workforce in health and education, and strengthened existing facilities for services. This led to enhanced project outputs which exceeded targets in most components. It demonstrated that child eye health was a cross-cutting concept between health and education sectors. It also identified the need for a better understanding of the education sector for improved programme design that could lead to institutional impact and change.

Knowledge Generation

This section focusses on promising practices noted in the project and any outstanding issues. The key learnings and recommendation are presented separately.

Key Evaluation Question

What are the key lessons learned that can be shared with other stakeholders in child eye health?

The key strategic lessons learned are covered under a separate section on 'Learnings'.

Are there any promising practices? If yes, what are they and how can these practices be replicated in other projects and/or in other countries that have similar interventions?

The Evaluators noted that there were several good/promising practices that lent themselves for replication and further upscaling. These are presented below in **Table 15**.

Table 15 - Promising practices noted in project

Theme	Promising Practice
Leadership and Governance	▪ Regular stakeholder engagement and periodic review meetings with health and education authorities were instrumental in obtaining government buy-in
Service Delivery	▪ The use of teachers as primary vision screeners and to disseminate eye health education to school children is a highly effective modality ▪ The role of the EARC, revitalised by the project, as a vital link with SNE and child eye health is an institutional mechanism that can be strengthened and capacitated further for greater impact ▪ The referral linkage of schools with health facilities (eye units) is an excellent example of cross-sectoral collaboration brought about by the project ▪ The use of vision corridors in schools and training of Vision Champions are very successful practices that need to be replicated
Technology	▪ The strengthening of existing central optical facilities is a good example of establishing a safety net for children from poor families for provision of spectacles and low vision devices ▪ A cost-effective supply chain process was established using local courier services ▪ The role of the central optical facility acting as a catalyst to pilot satellite optical facilities at county/district hospitals needs to be developed further
Workforce Development	▪ Capacity development at Masinde Muliro University of Science and Technology has good potential for expansion and replication ▪ Training of Trainers using existing resource persons was noted as an essential process to cascade training to teachers and health personnel ▪ Upskilling of capacities of optometrists and ophthalmic personnel in paediatric refraction and low vision care was vital to the child eye health project ▪ Training of non-eye health personnel was a useful activity that lends itself to large scale replication
Information	▪ Selected child eye health indicators incorporated in the eye health reporting are a vital step for planning and monitoring
Financing	▪ Motivating sub-national health authorities to sponsor periodic outreach activities to include child eye health screening

Three selected examples are presented below of practices that were inspired by the project.

Ms J

An ophthalmic nurse working at one of the county hospitals was selected for the training at Masinde Muliro University. On her return, she noted the enormous need of child eye health in her county, and as she practiced her new skills, she developed an interest to further develop her skills. She has now enrolled in a formal nine-months refractionist training programme and is keen to develop her career as a refractionist working especially with children.

Mr A

An ophthalmic clinical officer/cataract surgeon, working at a county hospital, was also trained at Masinde Muliro University. On his return, he has realised the large unmet need for low vision care. He is now keen to further his knowledge and skills in low vision and become a low vision practitioner.

Parent

A lady whose child was screened at school and then prescribed spectacles became so motivated by the change and improvement in school performance of her child, she has now become a volunteer for child eye health. In her locality, she tries to identify children who might have a vision problem and even takes them to the hospital for an eye examination. This is an excellent example of a **positive deviance**[19] approach that can be further developed using a behavioural change communication and community mobilisation strategy.

What outstanding issues still require action and commitment from district and national-level stakeholders?

There are three main outstanding issues:

- Recruitment and deployment of optometrists to the county/district hospitals
- Revision and enforcement of school health guidelines
- Curricular change for teachers to be trained in and conduct vision screening in school children and for eye health promotion

What are the recommendations for similar projects and partnerships support in future?

This is covered under a separate section on 'Recommendations'.

[19] Positive Deviance is based on the observation that in every community there are certain individuals or groups whose uncommon behaviors and strategies enable them to find better solutions to problems than their peers, while having access to the same resources and facing similar or worse challenges. The Positive Deviance approach is an asset-based, problem-solving, and community-driven approach that enables the community to discover these successful behaviors and strategies and develop a plan of action to promote their adoption by all concerned. (www.positivedeviance.org)

Child Protection

This section presents the findings on the extent to which the beneficiary categories in health and education were informed and aware about child protection.

Key Evaluation Question

Were any rights of the child violated during the implementation of this project? Were any cases reported?

Was there a clear policy on child protection among the implementing partners' institutions such as health facilities and schools?

Were the people in direct contact with the child such as health workers and teachers aware of the rights of the child and the need to protect them?

The Evaluators found that the various categories of health and education personnel trained in the project acknowledged that they received orientation of and were knowledgeable about child protection. The common points that they learned are presented in **Table 16** below.

Table 16 - Knowledge gained by health and education personnel about Child Protection

Health Personnel	Education Personnel
▪ Protection of the child from various forms of abuse, physical, sexual, psychological and child labour ▪ Talks about the rights of the child, right to health care, education, basic needs, parental/guardian love, right to be listened to, right to have a name and be on the birth register, and right to safe environment and safe playing ground ▪ Right from abuse, sexual, child labour, ensuring that the child is in a conducive environment free from physical, social, psychological harm, meeting the child's rights to shelter, medication, education, development and environment, right to legal protection e.g. right to having a birth certificate	▪ About child rights not being violated, right to access education, health care, food, own opinions, no corporal punishment, right to participate in making decisions affecting them, protection from all forms of abuse- sexual, physical, emotional, psychological, no forced labour, awareness of what to do in case of abuse, awareness of their responsibilities at school, home and anywhere, right to safe environment and from injury and disease ▪ Protecting child from harm during assessment, not to injure the eyes, no inappropriate touching during examination ▪ Ensuring that learners grow up in a friendly environment, have access to all rights such as education, medical, no exploitation, no exposure to dangers, sexual and physical abuse. Protection from abusive teachers who may think that a child is performing poorly due to laziness but it could be due to vision impairment ▪ Ensuring the child is always secure from danger e.g. safe buildings, environment is free from dangerous materials, from physical abuse, protection against child labour, school drop-out, sexual abuse, putting safety measures such as ramps, comfortable latrines, right to water, security, protect them from injury, corporal punishment, not to bully one another, giving guidance and counselling

There were no complaints noted about children's rights being violated or children being disrespected during the project activities.

In the schools visited by the Evaluators, they did not see evidence of a formal school policy on child protection developed as a result of the project.

The focus group discussions held with health and education personnel in Tanzania indicated that none of these groups had received any orientation/training on child protection from the project.

Consortium

This section presents the findings on the working of the consortium.

Key Evaluation Question

How has the delivery on the "Joint Commitments" worked? Has collaboration been to the level envisaged at the planning phase? What has been the level of its success? Is there anything else that could have been done to improve this collaboration?

For purposes of future similar projects, are there any other stakeholders that were left out that might make meaningful contribution to the success of this project?
What are the consortium members' views on the success of the consortium collaboration and the project? Would they do it again?

A multi country project of this scale managed by two consortia with a diverse range of partners makes this programme unique for child eye health as there is no known large scale precedence for this. In-depth consultations were undertaken at the programme design stage among the consortium partners and line ministries and the programme was based on the available evidence and best practice. However, there were several challenges and constant innovations had to be made to keep the project on track. Despite all the challenges the programme was able to deliver and in many cases, exceed its targets paving the way for more effective and scaled up programmes in future.

The process of agreeing to various strategies and components of the child eye health project by the Consortium members was not a straightforward process. It required several rounds of iteration through Consortium meetings from 2012 and well into 2013 before a consensus was reached. Further, programme monitoring reviews noted that a uniform approach could not be adopted in the three countries, and that there was need to tailor the approach according to the respective countries. The bureaucratic process for obtaining necessary approval from the health and education authorities also took considerable time. These factors resulted in process delays.

Working in a Consortium can be a challenging process as has been highlighted in a blog by the International Agency for the Prevention of Blindness[20]. A Consortium offers greater geographical coverage, draws synergies from technical capacities and sector-specific strengths of member organisations. However, it also presents management challenges, especially in coordinating participating organisations, aligning varying organisational systems, programmatic approaches and values. It would have been useful to organise and facilitate a Consortium Management and Leadership Training[21] workshop at the outset to harmonise understanding and establish management and coordination arrangements prior to the start of the project.

[20] Working in a NGO consortium. https://www.iapb.org/working-ngo-consortium Accessed on 11 May 2017

[21] Consortium Management and Leadership Training – Facilitators Guide 2014. Core Group, TOPS and USAID

One of the main challenges faced by the Consortium during the start-up period was the delay in getting the equipment, frames and lenses into the respective countries. This was caused by the introduction of new importation rules by all the three countries which now require pre-inspection of all equipment before shipping. This is quite a lengthy process and the challenge was further compounded as the information was only communicated at the last minute when all the equipment was ready to be shipped. Therefore, the shipping had to be suspended until all the inspection was done.

Overall, the Consortium members appreciated the working of the 'Consortium' and recognised that since it was a new learning for all partners, it took some time at the beginning of the project for the working relationships to be established that focussed on the project mission and objectives. Earlier in the project, partners felt obliged to prioritise their respective organisational agendas. However, by the third year, the 'Consortium' was working more effectively and began to jointly identify solutions to challenges. Partners benefitted from each other's strengths and areas of expertise, and synergised efforts for the project.

The 'Consortium' members recognised that the project had provided an enormous learning opportunity for them as most had to work outside their comfort zones. It was understandable that there would be some operational and coordination challenges in the beginning. However, in the course of the project, they were able to streamline their respective approaches and work as a more coordinated team. By the end of the project, the 'Consortium' members indicated that there was great merit in working together in the future and pledged to form a **Regional Child Eye Health Forum**. This was considered essential to ensure that the programmatic and advocacy gains made during the project were not lost, and that further development and integration of child eye health could be pursued in health and education sectors.

The other stakeholders who were left out has been addressed under 'Sustainability'. The views of the BHVI-led Consortium Partners are summarised in **Table 17** below.

Table 17 - BHVI-led Consortium Partners - views and suggestions

Consortium Partner	Views on Consortium collaboration	Suggestions for the future
Brien Holden Vision Institute	▪ Beginning of the project was challenging – in terms of how the consortia were going to work, and different organisational agendas. It was in the last year of the project that the real mission of the project began to fall in place ▪ Local Standard Chartered staff tried to micro-manage project activities in the beginning – however, later they realised this would not work and became more supportive and facilitated processes ▪ In all three countries, Standard Chartered local offices and their teams played a critical role in	▪ A split consortium approach is more challenging than beneficial – the unified consortium approach used in Kenya for the National Trachoma Programme should be used for learning. The programme strategy was the same, and each consortium partner had a dedicated county/district where they provided the full package of services ▪ Relationship management is a key factor that needs to be considered in future programmes ▪ There should be a base upwards local level planning ▪ Build local capacities for training teachers and health personnel ▪ Incorporate outreach options for screening children

	raising the profile of the project especially in: ○ World Sight Day activities ○ Project information booths at Marathon events ○ Project close-out events ○ Project monitoring visits of Standard Chartered Seeing is Believing staff ▪ BHVI-led Consortium Partners embraced the project and went to great lengths to ensure its success despite working on a lean budget	▪ Incorporate a social behavioural change communication strategy ▪ Invest in implementation of advocacy ▪ Have a well-defined phase out plan ▪ Continue/extend the project
Fred Hollows Foundation	▪ It would have been easier and more practical if there had been one consortium ▪ Good coordination at operational level – between project manager and project coordinators. This was one of the success factors ▪ Scope and scale of project should have had a Phase 2 ▪ Organisation previously conducted school screening using eye care personnel – child eye health project changed organisational perceptions and recognised role of teachers ▪ Time for planning was too short – need time for stakeholder engagement ▪ Engagement with the education sector was new for the organisation – this project provided good learning	▪ A single consortium approach is more feasible programmatically ▪ Need for a social behavioural change communication component in any similar project in the future ▪ Model the project – go deep in a few counties and use them as a laboratory ▪ Layering of child eye health on comprehensive eye care services has a synergistic effect ▪ Have a strong advocacy component at the county level
Light for the World	▪ Challenging in the beginning ○ Initially meeting as NGOs, later brought on government partners – they should have been brought on earlier ○ Gender was not addressed adequately in the beginning ○ There were insufficient links to policy ▪ Overlapping of project activities between two consortia – in some cases ▪ Working in the BHVI-led consortium was quite productive and the partners supported each other ▪ Parent expectation of free surgery, when in fact funds available with tertiary referral hospital for surgery had been exhausted for that period	▪ Willing to work in a unified consortium, but a bifurcated consortium approach should be avoided ▪ Training of teachers in vision screening and eye health should be embedded in the curriculum ▪ There is need for a dedicated social behavioural change communication strategy for community mobilisation ▪ There is need for a defined advocacy strategy and investment should be made for its implementation ▪ Budget should be appropriate to the scope and scale of activities

Operation Eyesight Universal	▪ Consortia coalition worked independently of each other, yet there was need for dependence ▪ The coordination mechanism between BHVI-led partners was good and supportive to each other's activities ▪ There was a disconnect between regions and coalition partners – this led to fragmentation and follow-up issues ▪ The funding mechanism especially for tertiary referrals for surgery was not practical	▪ Criteria for selecting counties should include existing eye health services ▪ Need for involvement of more locals in project design stage ▪ There should be one national child eye health strategy that INGOs buy-in to. They should then take up regions and support implementation of the whole package of services ▪ Fragmentation of service delivery components should be avoided
Perkins International	▪ Consortium arrangement was generally good – this is probably because we had a very dedicated component of the project to attend to and we had sole access to utilise the budget for our activities ▪ There were no white canes catered for in the project – this was a challenge especially for children with low vision or blindness	▪ We would prefer a similar autonomous yet collaborative arrangement for our part and are willing to work in a consortium arrangement that takes this into consideration ▪ Future projects should take into consideration needs of low vision devices, Braille machines, Braille paper and white canes for children

There are three key points emerging from this feedback:

- Have a unified consortium approach – bifurcated consortia with fragmentation of activities and funding mechanisms did not come across as a desirable programme strategy
- Even collaborating international non-governmental organisations require some adjustment period of working as a group when they come together as a consortium for a unified purpose
- Develop a national child eye health strategy (integral to an overarching national eye health plan), which has a defined package of services that can be implemented as a 'whole' in defined administrative/geographical areas – the responsibility to deliver the 'whole package of services' should rest with the implementing partner. Fragmentation of programme responsibility was not found to be a viable programme strategy

Learnings from the Child Eye Health project

- The project **established unequivocally** that the concept of training teachers for screening and referral of school children for vision and eye health problems to a nearby health facility is a viable and replicable approach for child eye health in the public sector
- The project demonstrated that **successful collaboration and sectoral linkages are essential** and can occur between health and education sectors for promotion of child eye health at scale
- It is vital to undertake a thorough **stakeholder mapping and analysis** when planning such a project to identify the management and coordination tiers and duty bearers in both health and education, whose role will be critical to operationalise and sustain the programme strategy. This should be complemented by a **situation analysis** that contributes to project design
- In order to influence policy change, it is important to **understand the policy process**. Policy development and formulation in the public sector in East Africa is a well-defined process that is dependent on policy and problem analysis, devolutionary authority and responsibility, and feasible policy solutions. It is further dependent on the appropriateness to and alignment with national development plans, existing and respective sectoral policy instruments and strategic frameworks, institutional capacities, political acceptance, and donor assistance. Policy implementation, strengthening institutional capacities, enforcement, risk mitigation, and monitoring and evaluation are vital components that need to be taken into consideration. **Policy Briefs are very useful** in communicating with policy and decision makers to influence change.
- It is expedient for project design to undertake a **systematic and comprehensive review and analysis of the respective health and education policies and sector specific national and sub-national strategic/development plans**. This would help to identify strategic integration points for project strategy and where it could make a value addition. Further, it would provide the basis for policy and strategy discussions with and during orientation of sector authorities, decision makers and duty bearers
- Capacity building of non-eye health workers at scale **necessitates a change in the roles and responsibilities of the respective cadres, and upskilling of competencies to perform those roles**. For this to occur in a manner that is sustainable, the following process needs to be instituted:
    - Central, Regional/County and District education authorities need to be formally oriented and sensitised to provide guidance for and facilitate implementation arrangements, and institute a review process that would inform policy change
    - The in-service mechanisms for continuing medical education/training of the respective cadres need to be reviewed to identify pathways for integration and adaptation/revision of existing learning resources required for child eye health
    - The Health Information Systems section needs to be on board to incorporate and support the reporting, collection and dissemination of child eye health data in health information pathways (in line with guidance from the national eye health programme)
    - The Health sector often has other ongoing programmes for child health like nutrition and WASH (water, sanitation and hygiene). Synergies can be derived with these programmes as they are directed towards priority geographical areas for child health,

which by default also become the priority areas for child eye health. Collaborating with these programmes lends itself to multi-sectoral integration and raises the programme profile of child eye health while maintaining its specific focus

- The training of teachers for a clinical task is not one of simply building competence for an activity – it requires **formal and structured engagement with the education sector**. For a teacher to be able to perform vision screening and eye health promotion as part of their ongoing educational role, the following institutional mechanisms need to be operationalised:
  - Central, Regional/County and District education authorities need to be formally oriented and sensitised to provide guidance for and facilitate implementation arrangements, and institute a review process that would inform policy change
  - Specific education authorities dealing with support functions like school health, quality assurance, special needs etc need to be oriented, capacitated and on board to facilitate and support a large scale 'health in education' process
  - The National Centres/Institutes for Curriculum Development need to be on board so that they can incorporate changes in curricular reform processes and develop appropriate learning resources
  - The Teacher Services Commission needs to be on board for any additional role envisaged for teachers
  - The Institutes of Special Education and Teacher Training Colleges need to be engaged for development of in-service teacher training modules in child eye health
  - The Education Management Information System section needs to be on board to incorporate and support the reporting, collection and dissemination of child eye health data in education information pathways
  - The Head Teachers need to be trained to facilitate and provide supportive supervision to teachers who would undertake the screening and eye health promotion role
- Each of the project countries has well established national and sub-national (regional/county/district) **cyclical programme planning and financing mechanisms in the public sector for health and education**. Child eye health planning should be a combination of base-upwards and top-down, and would benefit from leveraging and developing inroads into these opportunities for multi-sectoral integration and long term sustainability
- Generating demand for child eye health and gender equity requires a **dedicated social and behavioural change communication strategy** that is integral to project design and implemented throughout the project
- **Refresher training and supportive supervision** of essential health and education cadres are vital components that need to be incorporated in project design to sustain gains made during upskilling and development of new competencies by these cadres
- A **unified 'consortium' approach** provides a more efficient planning, management and coordination mechanism when there are multiple project partners. The efficiency is further reinforced when the 'consortium' and project design subscribe to **a harmonised country-specific national child eye health strategy**, under which each of the partners delivers a **'comprehensive and un-fragmented essential package of services'** in defined geographical areas

- A child eye health programme that is designed to be **implemented in depth** in few selected administrative regions has a higher likelihood of demonstrating and sustaining programmatic impact at scale. This provides the opportunity to train a much larger workforce and supervisory/administrative chain, and capacitate a wider network of infrastructure within limited resources, rather than spreading the programme too thinly in many areas. The in-depth programming also lends itself to more effective policy advocacy for systemic change

Recommendations for short to medium term actions

To both Health and Education Authorities in Kenya, Uganda and Tanzania – points for consideration

- **Accelerate** the finalisation and launch of the revised School Health Policies, Strategies and Plans
- **Constitute** an inter-ministerial committee to, inter alia, provide guidance on the coordination and execution of the School Health Strategies and Plans; the mechanism for capacity building of the relevant health and education workforce for this purpose; and development of a **road map for child eye health**
- **Invite** a partnership group of international partners to support government efforts for child eye health in building institutional capacities, developing learning resources, upskilling and developing competencies of the health and education workforce, and strengthening information pathways, in line with sector specific strategic development plans

To Health Authorities in Kenya, Uganda and Tanzania – points for consideration

- **Advise** the Nursing Department, Mother and Child Health Programme, and Community Health Programme in the Ministry of Health to incorporate child eye health as part of competencies and training curricula of non-eye health personnel especially Primary Health Care workers, MCH workers and Community Health Volunteers
- **Appoint** a Technical Working Group to, inter alia,
  - examine existing training curricula and guidelines of non-eye health workers
  - develop modules and trainer guidelines on child eye health for non-eye health workers especially Primary Health Care workers, MCH workers, Community Health Volunteers
  - examine the feasibility of developing self-sustaining optical services (spectacles and low vision devices) at eye units at regional/county/district level, the supply chain required to support this service, and advise on revisions required in the Essential Medicines List for this purpose
  - develop a minimum set of child eye health indicators for incorporation in DHIS
- **Review** and approve the child eye health modules for health personnel and direct that they be cascaded through the existing pre-service and in-service training system
- **Direct** DHIS to incorporate minimum essential indicators for child eye health and improve reporting by incorporating this in ongoing training programmes on health information for staff
- **Prioritise** and expedite the recruitment and deployment of optometrists to eye units to make available services for refraction and low vision in support of the school health programme and special needs education
- **Pilot** and review development of optical services at selected eye units to cater for the needs of refractive errors and low vision, and review their operational feasibility for scaling up

To Education Authorities in Kenya, Uganda and Tanzania – points for consideration

- **Advise** the national centres/institutes of curriculum development and teacher training colleges to incorporate child eye health as part of curricular reform for teacher training and child learner education (including ECDE and primary basic education)
- **Appoint** a Technical Working Group to, inter alia,
  - examine existing training curricula and guidelines
  - advise on curricular reform for child eye health
  - develop modules and guidelines on child eye health for head teachers, school teachers and school health teachers
- **Review** and approve the child eye health modules for education personnel and direct that they be cascaded through the existing pre-service and in-service training system
- **Issue** an advisory to all schools to ensure that all children are screened for eye health and that vision and eye health status are formally included in every student card annually
- **Direct** EMIS to incorporate minimum essential indicators for child eye health and improve reporting by incorporating this in ongoing training programmes on education information for staff

To the BHVI-led Coalition

- **Conduct** separate formal feedback events with multimedia presentations at central level and at each project area (County level in Kenya, District level in Uganda, and Regional level in Tanzania) with health and education authorities to share the project outcomes and learning and recommendations
- **Print** copies of the evaluation report and disseminate to all participants at the formal feedback events
- **Hold** a policy dialogue on child eye health with health and education planners and decision makers, complemented by a stakeholder consultation process, to support government efforts to develop a **road map for child eye health** in the three countries
- **Give** consideration for a follow-on phase that incorporates learning from this project for institutionalisation of project gains

Recommendations for future child eye health programmes

Project Planning

1. The effectiveness of project planning and design can be improved through the following strategic actions:
    - Perform a thorough policy and sector strategy review and analysis to identify opportunities for value addition
    - Conduct a situation and stakeholder analysis to identify key stakeholders and potential intervention areas
    - Undertake participatory planning base upwards with a top-down element involving key stakeholders
    - Adopt a unified consortium approach that offers a complete package of services for child eye health
    - Aim for programmatic depth and enhance the coverage by trained human resources and facilities that can offer services for child eye health in the selected geographical zone
    - While identifying health facilities and schools, make use of Geographical Information System (GIS) mapping of potential health facilities, so that schools are identified in the coverage area of the health facility. Schools located further away would need to be covered by an outreach service

Leadership and Governance

2. Effective leadership and governance can provide an enabling environment for child eye health programmes. This can be achieved by adopting the following actions:
    - Identify leadership and governance tiers in respective sectors especially in devolved situations. Ensure that they are part of the project planning and design phase and that they are formally oriented/trained about the project at the outset
    - Seek guidance from these tiers to establish formal review mechanisms in existing coordination and review processes utilised by the stakeholders
    - Ensure that the review and coordination meetings are documented and the minutes circulated by the offices of the respective leadership and governance tiers
    - Organise and facilitate a Consortium Management and Leadership Training workshop at the outset to harmonise understanding and establish management and coordination arrangements prior to the start of the project

Service Delivery

3. The demand component of a child eye health programme needs to be developed side by side with the supply component. This can be ensured by developing a social behavioural change communication strategy as an essential programming component. This has an impact on the uptake of services and effectiveness of referral pathways. This action can

be complemented by utilising FM Radio and cell phones for eye health promotion and information messages

Workforce Development

4. Workforce development in the health and education sectors is a vital component of the child eye health strategy. In order to enhance the effectiveness of this component, the following strategic actions are recommended:

    - Identify the right cadre for the right role and ensure their upskilling for the task(s) intended
    - Train identified cadres en masse, include refresher trainings, and incorporate a supportive supervision and structured mentorship programme
    - Collaborate with Teacher Training Colleges and Institutes of Special Education and integrate training of teachers in pre-service (pre-set) and in-service (in-set) programmes where possible
    - Engage with curriculum development bodies at the outset for curricular change
    - Participate in the curricular reform process for Early Childhood Development Education (ECDE) to ensure incorporation of child eye health elements in ECDE strategies and plans
    - Strengthen capacities of County/Regional Ophthalmologists, especially where anaesthesia services are available, by facilitating hands-on training in paediatric ophthalmology
    - While short-term training (2 months) in low vision is helpful, it does not meet requirements for a career path or promotion. Consideration should be given to supporting low vision training of at least 9 months or more to enable the candidate to qualify for the Higher National Diploma (HND) in the respective countries. The training can be offered as a sandwich course so that workplace responsibilities are not neglected for extended periods of time

Technology and Supply Chain

5. A child eye health strategy is dependent on an efficient and cost-effective technology supply chain. This can be strengthened through the following actions:

    - Establish/strengthen central supply facilities for spectacles and low vision devices with an aim to set up satellite supply options with cost recovery and income-generation provisions
    - Clearly identify and test all aspects of the supply chain early in the project
    - Incorporate supply chain quality and management as a specific project activity

Information Systems

6. The Health and Education sectors, especially in the public sector, have operational information systems like the District Health Information System (DHIS) and the Education Management Information System (EMIS), which are used by decision makers for planning and monitoring. Integration of child eye health information into these pathways can be facilitated by the following actions:

    - Utilise existing information reports e.g. health and education statistics, for project planning

- Identify existing information pathways, stakeholders and processes in respective sectors and strengthen their capacities for child eye health through the project
- Ensure orientation and training of health and education records officers

Financing

7. Financing of child eye health programme initiatives is vital for long term sustainability. This programmatic theme can be reinforced by adopting the following actions:
    - Identify existing planning and financing mechanisms (e.g. County Health Sector Strategic and Investment Plans' or the 'County Integrated Development Plans' in Kenya; or the 'Comprehensive Council Health Plans' in Tanzania; or the 'District Health and Education Plans' in Uganda) and support programmatic activity to derive synergy and benefit from them

Advocacy

8. Successful projects make effective use of advocacy and communications. The profile of child eye health programmes can be greatly enhanced for policy advocacy by the following actions:
    - As part of the project design, develop and resource an advocacy and communications strategy and plan, which needs to be informed by a thorough situation and stakeholder analysis
    - Develop and maintain a project website for greater visibility and link with government sector specific sites for profile raising
    - Utilise the goodwill and marketing capacity of local Standard Chartered Banks to brand and raise the profile of child eye health in respective countries

Monitoring, Evaluation, Analysis and Learning (MEAL), and Research

9. Both monitoring and evaluation, and research play an important role in identifying barriers and bottlenecks, determining the effectiveness and efficiency of interventions, and using information obtained to inform programme design. These functions can be enhanced to greater effect for child eye health by taking the following actions:
    - Collaborate with sector specific authorities to identify and align monitoring, evaluation, analysis and learning (MEAL) needs with existing monitoring frameworks for greater synergy
    - Establish research partnerships/collaboration with recognised research organisations or research wings in Ministries of Health and Education. Collaborate on systems oriented research on child eye health, and joint publication and dissemination for profile raising and policy advocacy
    - Hold periodic learning events about the child eye health project. Involve key stakeholders, policy makers and decision makers in these events and utilise Policy Briefs for policy advocacy

Appendix 1 – Evaluation Framework

1. Relevance

Main Evaluation Questions	Supplementary Questions	Indicators	Data Sources	Data collection method	Sampling	Method of data analysis
• To what extent are the objectives and design of the project fitting with the current global/ regional/national policies of the countries?			Project documents and reports Secondary literature	Literature review		Thematic analysis
• To what extent was the project strategy and activities implemented relevant in responding to the eye health needs of the children in the countries?	Was the project relevant to the identified needs?		Project documents and reports Secondary literature Key informants	Literature review Interviews		Thematic analysis
• To what extent do achieved results (project goal, outcomes and outputs) continue to be relevant to the eye health needs of the children in the region?			Project documents and reports Secondary literature Key informants	Literature review Interviews		Thematic analysis

2. Effectiveness

Main Evaluation Questions	Supplementary Questions	Indicators	Data Sources	Data collection method	Sampling	Method of data analysis
• To what extent did the Project achieve its overall goal, outcomes, objectives and outputs?	Are there any areas that were missed or not done as well as they should have?		Project documents and reports Secondary literature Key informants	Literature review Interviews		Thematic analysis Quantitative analysis
• Were the inputs and strategies identified realistic, appropriate and adequate to achieve the results?	Could the project have been designed and implemented in a better way?		Project documents and reports Secondary literature Key informants	Literature review Interviews Observation		Thematic analysis
• And what factors (internal and external) influenced achievement or non-achievement of the planned and unplanned outputs and outcomes? How did these factors influence achievements of the project goal, outcomes and objectives?			Project documents and reports Secondary literature Key informants	Literature review Interviews		Thematic analysis
• How beneficial were the up skilling courses conducted for the eye health workers? Is there evidence of improved quality of clinical care?			Project documents and reports Secondary literature Key informants	Literature review Interviews Focus Groups		Thematic analysis

• Are the eye units sufficiently resourced to deliver the necessary services?	Do they still have deficiencies which could have been addressed by the project?		Project documents and reports Secondary literature Key informants	Literature review Interviews Observation		Thematic analysis
• One of the key issues identified is the poor uptake of referrals. What are the barriers? How can the barriers be addressed? Similarly, how can uptake of referral from one level health facility to the next be improved?			Project documents and reports Secondary literature Key informants Communities, Health Workers, Teachers,	Literature review Interviews Focus Groups		Thematic analysis

3. Efficiency

Main Evaluation Questions	Supplementary Questions	Indicators	Data Sources	Data collection method	Sampling	Method of data analysis
• How efficiently and timely has this project been implemented and managed in accordance with the Project Document?	Were there any aspects that could have been done more efficiently?		Project documents and reports Secondary literature Key informants	Literature review Interviews		Thematic analysis Quantitative analysis
• Was the process of achieving results efficient? Specifically did the actual or expected results (outputs and outcomes) justify the costs incurred?	Were there any activities that were implemented in a costly manner when there were cost-effective options available?		Project documents and reports Secondary literature	Literature review Observation		Thematic analysis
• Did project activities overlap and duplicate other similar interventions (funded nationally and/or by other donors?	If so, please provide examples?		Project documents and reports Secondary literature Key informants	Literature review Interviews Observation		Thematic analysis
• Could other more efficient ways and means of delivering more and better results (outputs and outcomes) with the available inputs been used and produced better results?			Project documents and reports Secondary literature Key informants	Literature review Interviews		Thematic analysis
• How efficient were the management and accountability structures			Project documents and reports	Literature review Interviews		Thematic analysis

	of the project? This will include collaboration with government of Kenya, Uganda and Tanzania MOH and MOE partners			Secondary literature Key informants			
•	Did the project's management structure, including financial management processes and procedures affect project implementation?	Were there any positive or negative implications? Could a better approach have been adopted?		Project documents and reports Secondary literature Key informants	Literature review Interviews		Thematic analysis
•	What are the strengths, weaknesses, opportunities and threats of the project's implementation process?			Project documents and reports Secondary literature Key informants	Literature review Interviews		Thematic analysis

4. Sustainability

Main Evaluation Questions	Supplementary Questions	Indicators	Data Sources	Data collection method	Sampling	Method of data analysis
• Local ownership; to what extent (breadth and depth) is local ownership evident? Assess the partnership levels and relationship between the project management (consortia) and the implementing partners, mainly the Ministries of Health and Education.	Were there any positive or negative consequences resulting from this partnership and relationship?		Project documents and reports Secondary literature Key informants	Literature review Interviews Observation		Thematic analysis
• Assess the sustainability potential of the project in the following areas:	• Ability of the relevant Ministries and health facilities to continue offering the services with the same level of quality after December 2016. Consider political, financial, institutional, economic social and/or environmental issues.		Project documents and reports Secondary literature Key informants	Literature review Interviews Observation		Thematic analysis
	• Potential for replication or scaling up the CEH model by either the Ministries or any other stakeholders. What would be the probable implications of scaling up in terms of costs,		Project documents and reports Secondary literature Key informants	Literature review Interviews Observation		Thematic analysis

	cost-effectiveness, or efficiency?					
• How are the achieved results, especially the positive changes generated by the project going to be sustained after this project ends?	• What are the key factors that will require attention in order to improve prospects of sustainability of Project outcomes and the potential for replication of the approach?		Project documents and reports Secondary literature Key informants	Literature review Interviews		Thematic analysis
• How effective were the exit strategies, and approaches to phase out assistance provided by the project	Could these have been planned in a better way leading to a more lasting effect?		Project documents and reports Secondary literature Key informants	Literature review Interviews		Thematic analysis
• How were capacities strengthened at the individual and organizational level (including contributing factors and constraints)?			Project documents and reports Secondary literature Key informants	Literature review Interviews		Thematic analysis

5. Impact

Main Evaluation Questions	Supplementary Questions	Indicators	Data Sources	Data collection method	Sampling	Method of data analysis
• To what extent did the project have positive, intended or unintended impact on the primary beneficiaries? What are the key changes in the lives of those children? Please describe those changes			Project documents and reports Key informants Sampled children and parents Sampled teachers Sampled Health Workers Sampled communities	Literature review Interviews Focus Groups		Thematic analysis
• What about impact on secondary beneficiaries including parents/guardians, families and the community?			Project documents and reports Key informants Parents of sampled children Sampled communities	Literature review Interviews Focus Groups		Thematic analysis
• Were there any unintended consequences (positive and negative) resulting from the project on both primary and secondary beneficiaries? What about on other stakeholders such as			Project documents and reports Key informants Sampled children and parents Sampled teachers Sampled Health Workers	Literature review Interviews Focus Groups		Thematic analysis

	private practice eyecare personnel?			Sampled communities			
•	What key changes have come about at community level? e.g attitude and knowledge of child eye health, are there any gender biases when following through referrals for their children?			Project documents and reports Key informants Parents of sampled children Sampled communities	Literature review Interviews Focus Groups		Thematic analysis
•	What key changes have come about at school, policy level in MOH and MOE as a result of advocacy?			Project documents and reports Key informants Sampled teachers	Literature review Interviews Focus Groups		Thematic analysis
•	Are any external factors likely to jeopardise the project's direct impact?			Project documents and reports Key informants	Literature review Interviews		Thematic analysis

6. Knowledge Generation

Main Evaluation Questions	Supplementary Questions	Indicators	Data Sources	Data collection method	Sampling	Method of data analysis
• What are the key lessons learned that can be shared with other stakeholders in child eye health?			Project documents and reports Key informants	Literature review Interviews Observation		Thematic analysis
• Are there any promising practices? If yes, what are they and how can these practices be replicated in other projects and/or in other countries that have similar interventions?			Project documents and reports Key informants	Literature review Interviews Observation		Thematic analysis
• What outstanding issues still require action and commitment from district and national-level stakeholders?			Project documents and reports Key informants	Literature review Interviews		Thematic analysis
• What are the recommendations for similar projects and partnerships support in future?			Project documents and reports Key informants	Literature review Interviews		Thematic analysis

7. Child Protection

Main Evaluation Questions	Supplementary Questions	Indicators	Data Sources	Data collection method	Sampling	Method of data analysis
• Were any rights of the child violated during the implementation of this project? Were any cases reported?			Project documents and reports Key informants Parents of sampled children Sampled communities	Literature review Interviews Focus Groups		Thematic analysis
• Was there a clear policy on child protection among the implementing partners' institutions such as health facilities and schools?			Project documents and reports Key informants	Literature review Interviews		Thematic analysis
• Were the people in direct contact with the child such as health workers and teachers aware of the rights of the child and the need to protect them?			Project documents and reports Key informants Sampled teachers Sampled health workers	Literature review Interviews Focus Groups		Thematic analysis

8. Consortium

Main Evaluation Questions	Supplementary Questions	Indicators	Data Sources	Data collection method	Sampling	Method of data analysis
• How has the delivery on the "Joint Commitments" worked? Has collaboration been to the level envisaged at the planning phase? What has been the level of its success? Is there anything else that could have been done to improve this collaboration?			Project documents and reports Key informants	Literature review Interviews		Thematic analysis
• For purposes of future similar projects, are there any other stakeholders that were left out that might make meaningful contribution to the success of this project?			Project documents and reports Key informants	Literature review Interviews		Thematic analysis
• What are the consortium members' views on the success of the consortium collaboration and the project? Would they do it again?			Project documents and reports Key informants	Literature review Interviews		Thematic analysis

Appendix 2 – Sampling frame of key beneficiaries

Category of Beneficiary	Total number in programme	Total proportionate sample (%) for FGD or interview	Proportionate sample from Kenya	Proportionate sample from Uganda	Proportionate sample from Tanzania	Method
Children accessing technology	379	40 (10%)	50% of the sample 20	16% of the sample 6	16% of the sample 6	FGD
Parents of children with vision impairment benefitted from programme	379	40 (10%)	50% of the sample 20	16% of the sample 6	16% of the sample 6	One on one interview
OCO/Optometrists	21	10 (50%)	4	2	4	One on one interview
PHC workers	434	86 (20%)	40% of the sample 34	20% of the sample 18	40% of the sample 34	FGD
MCH workers	427	86 (20%)	40% of the sample 34	20% of the sample 18	40% of the sample 34	FGD
CHWs	837	83 (10%)	40% of the sample 33	20% of the sample 17	40% of the sample 33	FGD
Teachers of sighted children	4665	233 (5%)	14% of the sample 33	52% of the sample 120	34% of the sample 80	FGD
Teachers of children with vision impairment	195	20 (10%)	43% of the sample 9	27% of the sample 5	29% of the sample 6	One on one interview
Vision champions (school children)	1808	180 (10%)	14% of the sample 25	55% of the sample 99	31% of the sample 56	FGD
School Head Teachers						One on one interview in the visited schools

Appendix 3 – List of Key Informants and Stakeholders

Stakeholders interviewed - Kenya

Kisumu

1. Mr Adow Bardad – County Director Teachers Service Commission
2. Mr Orina – County Directorate of Education Officer
3. Dr Lusi – Chief Officer of Health
4. Dr Ojuma – County Ophthalmologist
5. Ms Jacqueline Sagina – Ophthalmic Nurse
6. Mr Mac Otieno – Deputy Head Teacher
7. Mr Tobias Apuko – EARC Coordinator
8. Mr Wycliffe Amimo – SNE, Coordinating Itinerant Teacher

Homa Bay

1. Ms Millicent Moraa Nyabunga – County Directorate of Education Officer
2. Ms Diosiana – SNE Teacher
3. Dr Francis Aila – County Nutritionist
4. Dr Francis Ochieng – County Ophthalmologist
5. Mr Emmanuel Gumbe – Ophthalmic Clinical Officer
6. Mr Moses Orwe – Ophthalmic Nurse
7. Mr James Ouko – Ophthalmic Nurse
8. Mr Nixon Nyangweso – Ophthalmic Nurse
9. Mr Maren Anyona – Ophthalmic Nurse

Kericho

1. Ms Rosemary Sokotian – County Director Teachers Service Commission
2. Mr Benson Mugatsia – County Director Human Resource Development
3. Dr Gilbert Cheruyiot – Ophthalmologist Litein Mission Hospital
4. Ms Jane Ngeny – Ophthalmic Nurse
5. Mr Alfred Chelimo – Ophthalmic Clinical Officer Cataract Surgeon
6. Mr Patrick Rugut – EARC Education Assessment Teacher

Nakuru

1. Mr Morris Saka – County Quality Assurance Education Officer
2. Mr Abraham Mwita – County Nursing Officer
3. Dr Musyoki – County Ophthalmologist
4. Ms Caroline Tallam – Ophthalmic Clinical Officer Cataract Surgeon
5. Mr Charles Njoroge – Head Teacher, Moi Primary School
6. Mr Joseph Kamotho – Curriculum Support Officer
7. Ms Elizabeth Kimani – County EARC Coordinator

Kakamega

1. Dr Okenwa-Vincent Emmanuel – Chairman, Department of Optometry and Vision Sciences, Masinde Muliro University of Science and Technology

Nairobi

1. Mr Frederick Haga – SNE, Ministry of Education
2. Ms Maria Cherono – SNE, Ministry of Education
3. Mr Amos Maigong – SNE, Ministry of Education
4. Mr Martin Onyango – Quality Assurance and Standards, Ministry of Education
5. Mr David Kirui – Quality Assurance and Standards, Ministry of Education
6. Mr Daniel Masese – Kenya Society for the Blind
7. Dr Michael Gichangi – Head, Ophthalmic Services Unit, Ministry of Health

Stakeholders interviewed - Uganda

Kampala

1. Dr Stanley Bubikire – Head, Disability Prevention and Rehabilitation Section, Ministry of Health
2. Ms Kantono Jane – Education Officer, SNE, Ministry of Education

Mbarara

1. Mr Gabriel Ahimbisibwe – District Education Officer
2. Mr Alfred Barungi – Ophthalmic Clinical Officer

Wakiso

1. Ms Nabuganda Betty – Senior Nursing Officer
2. Mr Robert Kakembo – Ophthalmic Clinical Officer
3. Mr Bongole Wamala Eliphaz – Education Officer in-charge SNE
4. Ms Ruth Nakalembe – Ophthalmic Clinical Officer Refractionist – Entebbe Hospital
5. Ms Harriett – Head Teacher
6. Mr Mugweri George – School Teacher

Stakeholders interviewed - Tanzania

Dar es Salaam

1. Dr Shilio – Programme Officer, National Eye Health Programme, Ministry of Health
2. Mr Grayson Lazaro – Acting Assistant Director, Special Needs Education, Ministry of Education
3. Mr Adamson Shimbatano – Special Needs Education Officer, Ministry of Education
4. Mr Alfred Nsimbira – Special Needs Unit, Ministry of Education

Mwanza

1. Dr Leonard Subi – Regional Medical Officer
2. Mr Juma Kasandiko – Acting Regional Education Officer
3. Mr Sheja – Assistant Regional Education Officer
4. Dr Mkamba – Regional Eye Health Coordinator

Kwimba

1. Mr Simon Kagwa – District Executive Director, Kwimba
2. Mwalimu Sobi Pastore Masalu – District Education Officer, Kwimba
3. Ms Elizabeth Tenga – SNE Officer Kwimba
4. Mr Hassan – Assistant Head Teacher, Primary School Kakora, Kwimba
5. Mr Ramadhani – School Health Teacher, Primary School Kakora, Kwimba

6. Mr Boniface – School Health Teacher, Primary School Kakora, Kwimba
7. Ms Priscus Shirima – Optometrist, Bariadi Vision Centre, Kwimba
8. Mr David Chuwa – Optometrist, Busiga District Hospital, Kwimba
9. Ms Regina Mayala – Ophthalmic Nurse, District Hospital, Kwimba

Misungwi

1. Mr Frederick Noch – Acting District Executive Director, Misungwi
2. Mr Magoti – Acting District Education Officer, Misungwi
3. Dr Marselina – District Medical Officer, Misungwi
4. Ms Constantine Meleka – District Eye Care Coordinator, Misungwi
5. Ms Pauline Lubimba – District School Health Coordinator (Health), Misungwi
6. Ms Theresa Marombe – Acting RCH Coordinator, Misungwi
7. Mr Barak Alum – Planning Officer, Misungwi
8. Ms Lucy Sakila Samiki – District School Health Coordinator (Education), Misungwi
9. Mr Laurenu Katiba – Head Teacher, Mashane School, Misungwi
10. Ms Prisca Msilango – School Health Teacher, Mashane School, Misungwi
11. Mwalimu Kurua – Head Teacher, Mitindo School (Integrated), Misungwi

Mbeya

1. Dr Kilewa – Regional Eye Health Coordinator
2. Mr Julius Nsiwange – District Medical Officer, Kyela
3. Mr Palemon Ndarugiliye – District Education Officer, Kyela
4. Ms Monica – District Eye Care Coordinator, Kyela
5. Ms Anna Mwombeki – RCH Coordinator, Kyela
6. Mr Anderson – District School Health Coordinator (Health), Kyela

Representatives of International Non-Governmental Eye Care Organisations interviewed

1. Mr Hasan Minto – Director Sustainable Service Development, Public Health, Brien Holden Vision Institute
2. Ms Mary Wepo – Africa Programmes Manager, Brien Holden Vision Institute
3. Ms Jyoti Jaggernath – African Vision Research Institute
4. Mr Eden Mashayo – Country Manager, Brien Holden Vision Institute, Tanzania
5. Dr Naomi Nsubuga – Sub-Regional Programme Manager for East Africa, Brien Holden Vision Institute, Uganda
6. Mr Godfrey Kaggwa – Programme Manager, Brien Holden Vision Institute, Uganda
7. Ms Phoebe Katende – Focal Person/Consultant, Light for the World, Uganda
8. Ms Angela Afran – Perkins International
9. Ms Scovia Nansuwa – Country Representative, Perkins International, Uganda
10. Ms Alice Mwangi – Country Manager, Operation Eyesight Universal, Kenya
11. Ms Gladwell Wanjiru – Programme Coordinator, Operation Eyesight Universal, Kenya
12. Ms Jane Ohuma – Country Manager, The Fred Hollows Foundation, Kenya
13. Mr Herbert Dola – Programme Manager, The Fred Hollows Foundation, Kenya

Appendix 4 – Questions for Key Informants and Stakeholders

1. Health and Eye Care Officials

1. To what extent do you think the objectives and design of the project were aligned with the current regional or national policies?
2. In your opinion, to what extent did the Project achieve its overall outcomes and objectives? Are there any areas that were missed or not done as well as they should have?
3. From your perspective, how beneficial were the up skilling courses conducted for the eye health workers? Is there evidence of improved quality of clinical care?
4. One of the key issues identified is the poor uptake of referrals. What do you think are some of the barriers? How can these barriers be addressed? Similarly, how can uptake of referral from one level health facility to the next be improved?
5. How well has child eye health been integrated in school health? Are you satisfied with the process so far? What do you think are some of the bottlenecks that are affecting integration? How can the integration be improved?
6. How efficient were the management and accountability structures of the project? How would you describe the collaboration with government of Kenya, Uganda and Tanzania MOH and MOE partners?
7. Do you think the project activities overlapped with and duplicated other similar interventions (funded nationally and/or by other donors? If so, please provide examples?
8. In your opinion, how would you assess the ability of the relevant Ministries and health facilities to continue offering the services with the same level of quality after December 2016? Are there any political, financial, institutional, economic social and/or environmental issues that are likely to affect the continuity of the services?
9. How do you think the achieved results, especially the positive changes generated by the project going to be sustained after this project ends? What do you think are the key factors that will require attention in order to improve prospects of sustainability of Project outcomes and the potential for replication of the approach?
10. From your perspective, what key changes have come about at school, policy level in MOH and MOE as a result of advocacy done during the project?
11. What would you describe as the key lessons learned that can be shared with other stakeholders in child eye health?
12. What in your opinion are some of the outstanding issues that require action and commitment from district and national-level stakeholders?
13. What would you suggest as the recommendations for similar projects and partnerships support in future?

Education Officials

1. To what extent do you think the objectives and design of the project were aligned with the current regional or national policies?
2. In your opinion, to what extent did the Project achieve its overall outcomes and objectives? Are there any areas that were missed or not done as well as they should have?
3. From your perspective, how beneficial were the up skilling courses conducted for the teachers? Is there evidence of improved quality of education?

4. One of the key issues identified is the poor uptake of referrals. What do you think are some of the barriers? How can these barriers be addressed? Similarly, how can uptake of referral from one level health facility to the next be improved?
5. How well has child eye health been integrated in school health? Are you satisfied with the process so far? What do you think are some of the bottlenecks that are affecting integration? How can the integration be improved?
6. How efficient were the management and accountability structures of the project? How would you describe the collaboration with government of Kenya, Uganda and Tanzania MOH and MOE partners?
7. Do you think the project activities overlapped with and duplicated other similar interventions (funded nationally and/or by other donors? If so, please provide examples?
8. In your opinion, how would you assess the ability of the relevant Ministries and health facilities to continue offering the services with the same level of quality after December 2016? Are there any political, financial, institutional, economic social and/or environmental issues that are likely to affect the continuity of the services?
9. How do you think the achieved results, especially the positive changes generated by the project going to be sustained after this project ends? What do you think are the key factors that will require attention in order to improve prospects of sustainability of Project outcomes and the potential for replication of the approach?
10. From your perspective, what key changes have come about at school, policy level in MOH and MOE as a result of advocacy done during the project?
11. What would you describe as the key lessons learned that can be shared with other stakeholders in child eye health?
12. What in your opinion are some of the outstanding issues that require action and commitment from district and national-level stakeholders?
13. What would you suggest as the recommendations for similar projects and partnerships support in future?

INGOs and Societies

1. To what extent do you think the project strategy and activities implemented were relevant and appropriate in responding to the eye health needs of the children?
2. In your opinion, were the inputs and strategies identified realistic, appropriate and adequate to achieve the results? Could the project have been designed and implemented in a better way?
3. Do you think that the process of achieving results was efficient? Specifically did the actual or expected results (outputs and outcomes) justify the costs incurred? Were there any activities that were implemented in a costly manner when there were cost-effective options available?
4. How do you think the project's management structure, including financial management processes and procedures affected project implementation? Were there any positive or negative implications? Could a better approach have been adopted?
5. Looking back, what would you describe as the strengths, weaknesses, opportunities and threats of the project's implementation process?
6. How do you think the achieved results, especially the positive changes generated by the project going to be sustained after this project ends? What do you think are the key factors that will require attention in order to improve prospects of sustainability of Project outcomes and the potential for replication of the approach?

7. In your opinion, how effective were the exit strategies, and approaches to phase out assistance provided by the project? Could these have been planned in a better way leading to a more lasting effect?
8. From your perspective, what key changes have come about at school, policy level in MOH and MOE as a result of advocacy done during the project?
9. Do you think there are any external factors that are likely to jeopardise the project's direct impact?
10. What would you describe as the key lessons learned that can be shared with other stakeholders in child eye health?
11. What in your opinion are some of the outstanding issues that require action and commitment from district and national-level stakeholders?
12. What would you suggest as the recommendations for similar projects and partnerships support in future?
13. In your opinion, how has the delivery on the "Joint Commitments" worked? Has collaboration been to the level envisaged at the planning phase? What has been the level of its success? Is there anything else that could have been done to improve this collaboration?
14. For purposes of future similar projects, do you think there were other stakeholders that were left out that might make meaningful contribution to the success of this project?
15. What are your views on the success of the consortium collaboration and the project? Would you do it again?

Project Coordinators

1. In your opinion, to what extent did the Project achieve its overall outcomes and objectives? Are there any areas that were missed or not done as well as they should have?
2. In your opinion, were the inputs and strategies identified realistic, appropriate and adequate to achieve the results? Could the project have been designed and implemented in a better way?
3. In your opinion, were there any factors (internal and external) that influenced achievement or non-achievement of the planned and unplanned outputs and outcomes? How did these factors influence achievements of the project outcomes and objectives?
4. One of the key issues identified is the poor uptake of referrals. What do you think are some of the barriers? How can these barriers be addressed? Similarly, how can uptake of referral from one level health facility to the next be improved?
5. In your opinion, how efficiently and timely was this project implemented and managed in accordance with the Project Document? Were there any aspects that could have been done more efficiently?
6. Do you think that the process of achieving results was efficient? Specifically did the actual or expected results (outputs and outcomes) justify the costs incurred? Were there any activities that were implemented in a costly manner when there were cost-effective options available?
7. Do you think the project activities overlapped with and duplicated other similar interventions (funded nationally and/or by other donors? If so, please provide examples?

8. Could other more efficient ways and means of delivering more and better results (outputs and outcomes) with the available inputs been used and produced better results?
9. How efficient were the management and accountability structures of the project? How would you describe the collaboration with government of Kenya, Uganda and Tanzania MOH and MOE partners?
10. How do you think the project's management structure, including financial management processes and procedures affected project implementation? Were there any positive or negative implications? Could a better approach have been adopted?
11. Looking back, what would you describe as the strengths, weaknesses, opportunities and threats of the project's implementation process?
12. In your opinion, to what extent has the project developed local ownership? How would you describe the partnership levels and relationship between the project management (consortia) and the implementing partners, mainly the Ministries of Health and Education? Were there any positive or negative consequences resulting from this partnership and relationship?
13. How well has child eye health been integrated in school health? Are you satisfied with the process so far? What do you think are some of the bottlenecks that are affecting integration? How can the integration be improved?
14. In your opinion, how would you assess the ability of the relevant Ministries and health facilities to continue offering the services with the same level of quality after December 2016? Are there any political, financial, institutional, economic social and/or environmental issues that are likely to affect the continuity of the services?
15. Do you think there is any potential for replication or scaling up the CEH model by either the Ministries or any other stakeholders? What would be the probable implications of scaling up in terms of costs, cost-effectiveness, or efficiency?
16. How do you think the achieved results, especially the positive changes generated by the project going to be sustained after this project ends? What do you think are the key factors that will require attention in order to improve prospects of sustainability of Project outcomes and the potential for replication of the approach?
17. In your opinion, how effective were the exit strategies, and approaches to phase out assistance provided by the project? Could these have been planned in a better way leading to a more lasting effect?
18. Do you think there were any unintended consequences (positive and negative) resulting from the project on both primary and secondary beneficiaries? What about on other stakeholders such as private practice eyecare personnel?
19. Do you think there are any promising practices? If yes, what are they and how can these practices be replicated in other projects and/or in other countries that have similar interventions?
20. What in your opinion are some of the outstanding issues that require action and commitment from district and national-level stakeholders?
21. What would you suggest as the recommendations for similar projects and partnerships support in future?

Kenya Society for the Blind

1. What was the role of KSB in the project?

2. How was the supply chain for spectacles and low vision devices structured and managed by KSB?
3. Did you encounter bottlenecks or challenges in this? If so, what were they and how did you address them?
4. How was quality of dispensing planned and managed? Was there any process of feedback from the user end?
5. What suggestions do you have for improving this component of the project? Could it have been done in a better way?

Masinde Muliro University of Science and Technology

1. What was the role of MMUST in the project?
2. How were the candidates for training selected?
3. Did you encounter bottlenecks or challenges in this? If so, what were they and how did you address them?
4. How was quality of the training in paediatric optometry and low vision planned and managed? Did you encounter or observe any challenges?
5. Is there any other area in which you think MMUST could have made value addition to the project?
6. What suggestions do you have for improving this component of the project? Could it have been done in a better way?

Perkins International

1. What was the role of Perkins in the project?
2. How was identification and education of children with vision impairment organised and managed?
3. Did you encounter bottlenecks or challenges in this? If so, what were they and how did you address them?
4. How was quality of assessment, placement in an education setting and subsequent learning planned and managed? Was there any process of feedback from the user end?
5. What suggestions do you have for improving this component of the project? Could it have been done in a better way?

Beneficiary groups

Children accessing technology

1. Please tell us how you came to learn of this project to help children who had sight problems?
2. What sort of sight problems do you have? What difficulties do face as a result of this?
3. How were you helped by this project? Can you tell us what examination was done?
4. How difficult or easy was it to study with the assistance provided by the project?
5. Can you demonstrate how you use the technology? What does it enable you to do, which you could not do before?
6. Do you face any difficulties in using the technology? If yes, please tell me what difficulties you face.
7. What support do you receive from your teachers when you face difficulties?

8. Do you know if there are other children in your village who have similar problems of sight like you have? Have they received any treatment and are they studying in school as well? If yes, what treatment have they received?
9. Do you have any suggestions so that other children with similar sight problems can be helped?

Parents of children with vision impairment benefitted from programme

1. Please tell us how you came to learn of this project to help children who had sight problems?
2. What sort of sight problems does your child have? What difficulties do you face as a result of this?
3. How were they helped by this project? Can you tell us what examination was done?
4. How difficult or easy was it for them to study with the assistance provided by the project?
5. What does the technology enable them to do, which they could not do before?
6. Do they face any difficulties in using the technology? If yes, tell me what difficulties they face.
7. What support do they receive from their teachers when they face difficulties?
8. Do you know if there are other children in your village who have similar problems of sight like yours have? Have they received any treatment and are they studying in school as well? If yes, tell me what treatment they have received
9. Do you have any suggestions so that other children with similar sight problems can be helped?
10. As a parent, was/were your child/children treated respectfully at all times during the examination and treatment provided?
11. What have you learnt during this project? What are you doing differently from before the project?

OCO/Optometrists

1. What do you know about this project on child eye health?
2. Where did you receive your training as an ophthalmic clinical officer or optometrist?
3. What sort of additional training did you receive from the project?
4. What did this additional training enable you to do which you could not do before?
5. Was the training provided sufficient for the tasks you were expected to perform? If yes, why do you say so? If no, what can be done to make the training sufficient?
6. What sort of post-training support and mentoring did you receive and from whom?
7. What do you understand by child protection? What information or training did you receive on child protection during the project? Who provided this training?
8. How would you describe the role you played in the project? How were you able to assist the children? In what ways were you not able to assist them?
9. Did you face any challenges in performing the tasks assigned to you? What were they and how could they be addressed?
10. What were the key learnings from the role you performed? How could that role have been improved?
11. Do you have any suggestions for a similar project in the future? How do you think it could be extended to other regions/districts/counties?

PHC workers

1. What do you know about this project on child eye health?
2. Where did you receive your training as a primary health care worker?
3. What sort of additional training did you receive from the project?
4. What did this additional training enable you to do which you could not do before?
5. Was the training provided sufficient for the tasks you were expected to perform? If yes, why do you say so? If no, what can be done to make the training sufficient?
6. What sort of post-training support and mentoring did you receive and from whom?
7. What do you understand by child protection? What information or training did you receive on child protection during the project? Who provided this training?
8. How would you describe the role you played in the project? How were you able to assist the children? In what ways were you not able to assist them?
9. Did you face any challenges in performing the tasks assigned to you? What were they and how could they be addressed?
10. What were the key learnings from the role you performed? How could that role have been improved?
11. Do you have any suggestions for a similar project in the future? How do you think it could be extended to other regions/districts/counties?

MCH workers

1. What do you know about this project on child eye health?
2. Where did you receive your training as a mother and child health worker?
3. What sort of additional training did you receive from the project?
4. What did this additional training enable you to do which you could not do before?
5. Was the training provided sufficient for the tasks you were expected to perform? If yes, why do you say so? If no, what can be done to make the training sufficient?
6. What sort of post-training support and mentoring did you receive and from whom?
7. What do you understand by child protection? What information or training did you receive on child protection during the project? Who provided this training?
8. How would you describe the role you played in the project? How were you able to assist the children? In what ways were you not able to assist them?
9. How well has child eye health been integrated in school health? Are you satisfied with the process so far? What do you think are some of the bottlenecks that are affecting integration? How can the integration be improved?
10. Did you face any challenges in performing the tasks assigned to you? What were they and how could they be addressed?
11. What were the key learnings from the role you performed? How could that role have been improved?
12. Do you have any suggestions for a similar project in the future? How do you think it could be extended to other regions/districts/counties?

CHWs

1. What do you know about this project on child eye health?
2. Where did you receive your training as a community health worker?
3. What sort of additional training did you receive from the project?
4. What did this additional training enable you to do which you could not do before?
5. Was the training provided sufficient for the tasks you were expected to perform? If yes, why do you say so? If no, what can be done to make the training sufficient?

6. What sort of post-training support and mentoring did you receive and from whom?
7. What do you understand by child protection? What information or training did you receive on child protection during the project? Who provided this training?
8. How would you describe the role you played in the project? How were you able to assist the children? In what ways were you not able to assist them?
9. Did you face any challenges in performing the tasks assigned to you? What were they and how could they be addressed?
10. What were the key learnings from the role you performed? How could that role have been improved?
11. Do you have any suggestions for a similar project in the future? How do you think it could be extended to other regions/districts/counties?

Teachers of sighted children / Teacher Coordinators

1. What do you know about this project on child eye health?
2. Where did you receive your training as a teacher? Did you learn anything about child eye health during you pre-service or in-service training before the project? If yes, please tell me what your learnt.
3. What sort of additional training did you receive from the project?
4. What did this additional training enable you to do which you could not do before?
5. Was the training provided sufficient for the tasks you were expected to perform? If yes, why do you say so? If no, what should be done to make the training sufficient?
6. What sort of post-training support and mentoring did you receive and from whom?
7. What do you understand by child protection? What information or training did you receive on child protection during the project? Who provided this training?
8. How would you describe the role you played in the project? How were you able to assist the children? In what ways were you not able to assist them?
9. Did you face any challenges in performing the tasks assigned to you? What were they and how could they be addressed?
10. What were the key learnings from the role you performed? How could that role have been improved?
11. Do you have any suggestions for a similar project in the future? How do you think it could be extended to other regions/districts/counties?

Teachers of children with vision impairment

1. What do you know about this project on child eye health?
2. Where did you receive your training as a specialist teacher? Did you learn anything about child eye health during you pre-service or in-service training before the project? If yes, what did you learn?
3. What sort of additional training did you receive from the project?
4. What did this additional training enable you to do which you could not do before?
5. Was the training provided sufficient for the tasks you were expected to perform? If yes, why do you say so? If no, what should be done to make the training sufficient?
6. What sort of post-training support and mentoring did you receive and from whom?
7. What do you understand by child protection? What information or training did you receive on child protection during the project? Who provided this training?
8. How would you describe the role you played in the project? How were you able to assist the children? In what ways were you not able to assist them?

9. Did you face any challenges in performing the tasks assigned to you? What were they and how could they be addressed?
10. What were the key learnings from the role you performed? How could that role have been improved?
11. Do you have any suggestions for a similar project in the future? How do you think it could be extended to other regions/districts/counties?

School Head Teachers

1. What do you know about this project on child eye health?
2. Do teachers learn anything about child eye health during their pre-service or in-service training i.e. before the project?
3. What sort of additional training did you as head teacher receive from the project?
4. What did this additional training enable you to do which you could not do before?
5. Was the training provided sufficient for the tasks you were expected to perform? If yes, why do you say so? If no, what do you think should be done?
6. What sort of post-training support and mentoring did you receive and from whom?
7. What do you understand by child protection? What information or training did you receive on child protection during the project? Who provided this training?
8. How would you describe the role you played in the project? How were you able to assist the teachers to support the children? In what ways were you not able to assist them?
9. Did you face any challenges in performing the tasks assigned to you? What were they and how could they be addressed?
10. What were the key learnings from the role you performed? How could that role have been improved?
11. Do you have any suggestions for a similar project in the future? How do you think it could be extended to other regions/districts/counties?

Vision champions (school children)

1. Please tell us how you came to learn of this project to help children who had sight problems?
2. What were you told about the role of a Vision Champion?
3. How were you selected as a Vision Champion? Did you volunteer for it or were you nominated by the Class Teacher?
4. What were you taught to do as a Vision Champion? Who provided the training?
5. Did you receive any written material to help you understand the role of a Vision Champion? If yes, what materials and how useful were they for your understanding? If no, what would you like to be done to help in your understanding?
6. Please describe what you did as a Vision Champion? Was it the same as the role you were taught or did it turn out as something different?
7. How did the other students and your friends respond to your nomination as a Vision Champion?
8. What do you think were some of the successful moments of your role as a Vision Champion?
9. Did you face any difficulties in performing your role of Vision Champion? If yes, what difficulties and what did you do about them?
10. How do you think the role of a Vision Champion can be improved?
11. Would you like to continue as a Vision Champion?

12. Did you also act as a Vision Champion in your village and home area or was it just at school? How did your family respond to your role as a Vision Champion?

Children provided spectacles

1. Questions for children provided spectacles:
2. What difference has provision of spectacles made to your life in school, at home and with friends?
3. Did you encounter any problems in using the spectacles? If so, how were those problems addressed?
4. From the time your eyes were checked and you were told that you need spectacles, to when you were provided the spectacles – how long did this take?
5. How satisfied are you with the spectacles?
6. Do you have any suggestions for how this programme could help other children who need spectacles?

Appendix 5 – Work Plan

	February				March				April			
	Week 1	Week 2	Week 3	Week 4	Week 1	Week 2	Week 3	Week 4	Week 1	Week 2	Week 3	Week 4
Preparatory Skype discussions with BHVI team												
Contractual formalities												
Inception Report												
Approval of Inception Report												
Phase 1: Desk Review												
Phase 2: Field Work												
Debrief with Local Evaluators												
Skype debrief with Evaluation Commissioner												
Phase 3: Analysis and Synthesis												
Phase 4: Report Writing												
Submission of Draft Report												
Comments on Draft report												
Submission of Revised Report												

Appendix 6 – Visit Plan

						Sat 4 Mar	**Sun 5 Mar**
						Depart Pakistan Arrive Tanzania	
						Stay in Dar es Salaam	Stay in Dar es Salaam
	Mon 6 Mar	Tue 7 Mar	Wed 8 Mar	Thu 9 Mar	Fri 10 Mar	Sat 11 Mar	Sun 12 Mar
AM	Meet MoH and MoE officials	Meet Regional Health Education officials	Visit to Magu district Meet local health and education officials Visit District Hospital	Visit to Msungwi district Meet local health and education officials Visit District Hospital	Phone interviews-Kyela district	Flight to Dar es Salaam	Flight to Nairobi
PM	Flight to Mwanza	Phone interviews Mbeya	Visit to sample school	Visit to sample school	Visit to sample school		Flight to Kisumu
	Stay in Mwanza	Stay in Mwanza	Stay in Mwanza	Stay in Mwanza	Stay in Mwanza	Stay in Dar es Salaam	Stay in Kisumu
	Mon 13 Mar	Tue 14 Mar	Wed 15 Mar	Thu 16 Mar	Fri 17 Mar	Sat 18 Mar	Sun 19 Mar
AM	In Kisumu, Meet CEO, and CHO Visit Kisumu Provincial Hospital	In Homa Bay Meet CEO, and CHO Visit Homa Bay Hospital	In Kericho Meet CEO, and CHO Visit Litein (Kericho) Provincial Hospital	In Nakuru Meet CEO, and CHO Visit Nakuru Provincial Hospital	Meet MoH and MoE officials Meet KSB	Meet Local Evaluator	Flight to Kampala
PM	Visit to sample school Travel to Homa Bay	Visit to sample school Travel to Kericho	Visit to sample school Travel to Nakuru	Visit to sample school Travel to Nairobi	Meet FHF and OEU teams		
	Stay in Homa Bay	Stay in Kericho	Stay in Nakuru	Stay in Nairobi	Stay in Nairobi	Stay in Nairobi	Stay Kampala

	Mon 20 Mar	Tue 21 Mar	Wed 22 Mar	Thu 23 Mar	Fri 24 Mar	Sat 25 Mar	Sun 26 Mar
AM	Meet MoH and MoE officials BHVI Phone interviews with Mbarara district health and education officials	Visit to Wakiso district Meet local health and education officials Visit District Hospital	Debrief meeting with Local Evaluators – in Entebbe				
PM	Meet LFTW	Visit sample school	Flight out from Entebbe				
	Stay in Kampala	Stay in Entebbe	Stay in Entebbe				

Appendix 7 – Emergent themes from beneficiary perspectives

Kenya

A total of four Counties - Kisumu, Homa Bay, Kericho and Nakuru were visited for the evaluation of child eye health project. Qualitative methods of data collection; Focus Group Discussions (FGDs) were used among Maternal and Child Health (MCH) workers, Community Health Volunteers (CHVs), teachers of sighted children, vision champions, children accessing technology and parents of children with vision impairment. Separate In-Depth Interviews (IDIs) were conducted among teachers of children with vision impairment, school head teachers, parents of children with vision impairment who received spectacles. All the participants were purposively selected. **Table 18** shows the number of IDIs and FGDs conducted in each of the four counties per category of participants.

Table 18 - Numbers of FGDs and IDIs conducted in Kenya

Participants Category	Qualitative method	County	Number of IDIs or FGDs
MCH	FGD	Kisumu Homa Bay Nakuru	1 1 1
CHV	FGD	Kisumu Kericho Nakuru	1 1 1
Teachers of sighted children	FGD	Kisumu Homa Bay Kericho	1 1 1
Teachers of children with vision impairment	IDI	Kisumu Homa Bay Kericho Nakuru	3 2 2 2
School Head teachers	IDI	Kisumu Homa Bay Kericho Nakuru	3 3 2 2
Vision Champions	FGD	Homa Bay Nakuru	1 2
Parents of children with vision impairment	IDI and FGD	Kisumu Kericho Nakuru	3 (IDIs) 3 (IDIs) 1 (FGD)
Children accessing technology	IDI and FGD	Kericho Nakuru	1 (IDI and 1 FGD) 2 (FGDs)
Children who received spectacles	IDI	Kisumu Homa Bay	3 2

Emerging themes include: knowledge of the Child Eye Health Project, training on eye health received from the project, perception of sufficiency of the training received from the project, knowledge of child protection, role in the project, challenges faced, lessons learned and suggestions for extension to other counties.

Maternal Child Health (MCH)

1. Knowledge of the Child Eye Health Project Initiated in 2013 to 2016, funded by Standard Chartered Bank called Seeing is Believing, targets children 0-16 years with a purpose of capturing signs of infection to prevent blindness through early intervention, trained on structure of the eye organ, conditions and management of infections, screening and prompt referral, Trained on prevention of vision impairment, giving on Vitamin A and 1% tetracycline application on new born children, encouraging exclusive breastfeeding and hygiene, screening involves antenatal care education on diet, hygiene, identification of abnormalities in new born children
2. Training on eye health received from the project Differentiating parts of the eye and their role; screening the eye and identification of abnormalities such as conjunctivitis (bacterial, viral and allergic), cataract, trachoma, squint eyes; training of teachers for screening and referral; taking visual acuity for children 0-5 years; importance of giving anti-tetanus jab for severe eye injury; practical session on screening using E-chart and torch; giving health education to ANC and MCH mothers; community awareness creation on eye health; record-keeping and monthly submission to Ophthalmic nurse
3. Perception of sufficiency of the training received from the project Yes, the content was sufficient for the work we are expected to do but the programme of training was too loaded, we were trained for 3 days but needed more time, Yes, there were practical sessions, we paired and learnt from each other's eyes
4. Knowledge of Child protection Protection of the child from various forms of abuse, physical, sexual, psychological and child labour. Talks about the rights of the child, right to health care, education, basic needs, parental/guardian love, right to be listened to, right to have a name and be on the birth register, and right to safe environment and safe playing ground
5. Integration of child eye health in school health programme School hand washing programmes integrated with eye health by providing health education through health clubs, Vitamin A supplementation provided at school by MOH, during school deworming provide health education, have a unit of school health at the MOH which is the entry point
6. Role in the project An advocate, coordinator of parents, schools and MOH, providing health education, eye hygiene and linkages between health services and parents. Assisting in detecting eye abnormalities and referring, administration of tetracycline, prescribing treatment and handling eye injuries at the casualty. Instruct mothers to identify abnormalities in their children and in the community training of CHVs
7. Challenges faced Pressure at work place due to the workload, limited staff, competing tasks at ANC, PNC, FP, CWC and labour ward, Loss to follow up as some mothers migrate, transfers within the hospitals, rotation of nurses, failure to take up surgery by parents who fear the outcome and inability to afford cost, eye health is neglected by the administration, drugs e.g. tetracycline not available or are too costly
8. Lessons learned

Influence of traditional beliefs and practices on eye health services take up, need for health education, behaviour change communication. Importance of ANC in preventing eye infection/blindness
9. Suggestions for extension to other counties Train more health care workers as workload is heavy, need continuous training in phases to fully capacity build, need to train nurses who join the department from other units, have review meetings to discuss challenges, achievements and way forward, collaborate with WASH projects, provide simple health education materials for community BCC

Community Health Volunteers (CHVs)

1. Knowledge of the Child Eye Health Project Targets children 0-16 years on eye health promotion, teaching of children and mothers on eye health hygiene, trained on parts of the eye and common diseases and infections of the eye, on screening the eye and appropriate referral for expert care, giving eye health education to the communities at grass root level.
2. Training on eye health received from the project About several eye diseases, screening, was given tools and trained how to refer, that squint eyes can be treated through operation, identification of mature cataracts, First Aid to the eye before referral by cleaning with a clean cloth and water, some eye diseases can be prevented through proper nutrition e.g. Vitamin A rich foods, importance of visiting hospital for eye care to prevent permanent conditions, need for proper placement in classroom, Differentiate reality with cultural beliefs, diseases like diabetes, TB, HIV and high blood pressure can cause blindness, lack of environmental sanitation can contribute to blindness, at age 40 years and above, the sight starts becoming poor
3. Perception of sufficiency of the training received from the project Yes, the content was sufficient, we got enough knowledge, but need refresher courses, need to be provided with more materials
4. Knowledge of Child protection Right from abuse, sexual, child labour, ensuring that the child is in a conducive environment free from physical, social, psychological harm, meeting the child's rights to shelter, medication, education, development and environment, right to legal protection e.g. right to having a birth certificate
5. Role in the project Once per week visiting communities and getting permission to screen and refer to the CHEW using a referral form and conduct health education on eye care and hand washing.
6. Challenges faced Some care-givers mix contemporary and traditional medicine due to ignorance, the workload is heavy as some CHVs cover vast areas, The equipment given to screen had some problems e.g. torches ran out of batteries which are not available in rural interior areas, parents have no time to give their children nutritious foods, lack of adequate record keeping forms thus I don't screen as I have nowhere to keep records, lack of funds after referral to travel, pay clinic fees, buy medicine or undergo an operation, CHVs are not motivated as they have no allowance to carry out the activities, expectations from community to help with your own resources for example during health education, Unavailability of tetracycline
7. Lessons learned

Good to arrest eye situations early, use of vitamin A can help prevent sight problems e.g. eating rich sources such as carrots, pumpkins and there are parents who have adopted good nutrition practices, Culture and traditional beliefs are barriers to eye health
8. Suggestions for extension to other counties Provide T-shirts, badges and bags to CHV for easier identification, plan for refresher courses need to be reminded and need IEC materials for reference, provide certificates for recognition, have a dialogue day to create more awareness in the community and improve knowledge, organize monthly screening at the facilities, organize free medical camps, conduct training at sub-county level to reach more people. Regular meetings amongst ourselves, train more CHVs for wider coverage, provide more referral forms

Teachers of Sighted Children

1. Knowledge of the Child Eye Health Project A consortium of organizations for children's eyes primary health care, teachers and health workers were trained on identification, screening and referral, a project funded by standard chartered bank, children 0-15 years eyes are screened, aims at improving learner's sight to cope with learning, started by "seeing is believing" with aim of preventing avoidable blindness, educate children to improve on hygiene e.g. washing face to avoid infection, enlightens learners on safe playing to avoid blindness, the project extends also to the community, tools given were occluder, torch and tape measure and file to carry out screening and refer those with eye problems to the eye clinic
2. Training on eye health received from the project Practical sessions, looking at eyes to detect abnormality, how to use the torch, occluder and tape measure, the distance to keep during assessment depending on size of letters to be read using tape measure and E-chart, preparing assessment room, making sure the light does not cause glare. Identifying and referring eye abnormalities e.g. cataracts and infections. Counselling of vision impaired learners who are traumatized, community sensitization and awareness creation
3. Perception of sufficiency of the training received from the project Yes, it served the required purpose but the content was too wide and time (1 day) inadequate
4. Knowledge of Child protection About child rights not being violated, right to access education, health care, food, own opinions, no corporal punishment, right to participate in making decisions affecting them, protection from all forms of abuse- sexual, physical, emotional, psychological, no forced labour, awareness of what to do in case of abuse, awareness of their responsibilities at school, home and anywhere, right to safe environment and from injury and disease
5. Role in the project Identifying vision problems and screening and referring appropriately, training vision champions and receiving their records and making referrals to the health facility, counselling of parents and children with vision impairment, working in collaboration with other teachers for identification of vision problems and with CHVs for awareness creation in the community
6. Challenges faced Ignorance among some parents, some parents not accepting their children, time to serve in schools not available as school management finds it too time consuming, need some equipment such as magnifying glasses, spectacles are not provided on time for those

screened, referral forms were few and had to use own resources to photocopy, cultural beliefs and practices are barriers to eye health care up take. Sarcastically nicknamed as eye teacher due to negativity on the project. Other teachers refuse to assist and believe that those who were trained are earning extra income making the workload heavy
7. Lessons learned Eye problems are common and some cultural practices are still rampant, eye health cases can be managed if attended to early, Importance of consulting parents on their children who have eye issues so that they can be solved, the seriousness of eye discharge as it is contagious, squint eyes are eye diseases which should be corrected early, Counselling is important in managing eye issues, need patience for interventions to be successful
8. Suggestions for extension to other counties Train head teachers and school administration for support, train more teachers and CHVs to reach maximum number of children, train school management committee to create awareness in the community, provide more screening tools, award certificates for recognition/motivation

Teachers of children with vision impairment

1. Knowledge of the Child Eye Health Project Concerned with eye health of the learners, find out those with eye problems, visual problems and refer attention when necessary, advising parents on how to take care of such children, a project to improve vision and access to learning. After screening, make records and refer for specialized care. Some have benefitted with spectacles and medicine in case of infection. There is an organization called seeing is believing which trained us on screening of children for visual acuity and then we as teachers trained pupils (vision champions) to assist us. Trained teachers on screening and identification of children with eye problems, we were given tape measure, E-chart and occluder.
2. Training on eye health received from the project We were empowered, got tools, learnt how to screen pupils, we went to Ahero primary and invited children from neighbouring schools. Assessment of children's vision, classroom placement, parents' sensitization and for those teachers not trained by the project, need to provide adequate lighting in the learning environment and how to use reading devices such as magnifiers. How to identify cataract, how to screen using tape measure, occluder and E-chart, parts of an eye external and internal, how the retina can be affected by injury, those children with low vision should be placed appropriately in class, about nutrition for improved eye sight. Learnt eye hygiene, how to wash if a foreign object gets in.
3. Perception of sufficiency of the training received from the project Yes, content and expectations were sufficient, though need more training as there are emerging issues in this area. No, we were trained for 1 day by just 2 people, the duration was short- theory in the morning and practical in the afternoon, we were many in the training. I felt I missed out on intensive training, we were given booklets for reference and now have more knowledge after consulting the booklets. We require to be trained for at least 2 days.
4. Knowledge of Child protection Protecting child from harm during assessment, not to injure the eyes, no inappropriate touching during examination, ensuring that learners grow up in a friendly environment, have access to all rights such as education, medical, no exploitation, no exposure to

dangers, sexual and physical abuse. Protection from abusive teachers who may think that a child is performing poorly due to laziness but it could be due vision impairment.

5. Role in the project

Identifying screening, refer for diagnostic assessment, taking care of devices such as spectacles, giving guidance and counselling to teachers, pupils and parents. Giving advice to the education department on visual impairment. Advice children on how to take care of their eyes during school and out of school, the need to go for regular eye check-up at hospital. Some pupils' performance has improved and parents have taken the project positively and now know that even the children with vision impairment can excel. Coordinating from school to EARC office, to hospital and to parents. Networking with other teachers. Telling Vision Champions to discuss challenges they face while screening.

6. Challenges faced

I was unable to get spectacles for all the pupils, only 2 got, pupils got their spectacles 7 months after screening. Some who needed medication didn't get, some do not comply with referrals. Lack of support by head teachers who do not allocate enough time for screening and eye examination. Some parents refusing to accept the devices such as spectacles provided to the children saying that they will worsen the situation.

7. Lessons learned

People may have eye problems that you cannot detect by just looking at them. Importance of diet and use of safe water in sight. Poverty contributes a lot to eye problems. Tolerance, humility, in dealing with the children with vision impairment. Has helped me to change my attitude on eye care. Regular schools should be well equipped with materials that can encourage integration because the low vision children need not be sent to special schools and can be helped at regular schools if all devices are provided. There are learners with visual problems and teachers are not aware and neglect them. Eye hygiene is very important for vision. Children have eye problems and allergies due to pollution and dust.

8. Suggestions for extension to other counties

Private school teachers should be targeted for training. Teachers who have been trained can be used to train a mass of other teachers from other counties. Parents require a lot of awareness for improved up take of services. More visits by the project implementers for increased interaction, information sharing and better service provision. Provision of resources such as brail and CCTVs and brail papers which are very expensive. Regular contact with programme implementers, monitoring of progress of activities on regular basis as people work better when there is monitoring.

Train more teachers per school as one is overwhelmed, more awareness creation done to the parents. Train head teachers so that they can support especially in community mobilization. Give refresher course for those trained in round one as there could be some emerging issues. Train parents- one representative for each class to help create awareness. Motivation of teachers is important once in a while. Provide more tools as the school enrolment is high.

School Head teachers

1. Knowledge of the Child Eye Health Project

A project assisting children with eye problems through screening, identification and referral. Trained teachers who trained vision champions who assist in screening children, assists learners to get spectacles. It is a good successful project but due to work pressure not very well managed. There is inadequate time even at home as pupils have homework

and household chores to do. Aim is to improve vision of children and educational performance
2. Training on eye health received from the project None, not trained
3. Perception of sufficiency of the training received from the project N/A
4. Knowledge of Child protection Ensuring the child is always secure from danger e.g. safe buildings, environment is free from dangerous materials, from physical abuse, protection against child labour, school drop-out, sexual abuse, putting safety measures such as ramps, comfortable latrines, right to water, security, protect them from injury, corporal punishment, not to bully one another, giving guidance and counselling
5. Role in the project Support teachers with their requirements as per their recommendations, facilitating children and teachers with needed finances when referred to hospital after screening as some parents cannot afford, certifying that referrals for spectacles are genuine. Coordination of activities such as induction of other teachers and community mobilization. Coordination with EARC office and accessing local administration to get parents who are non-compliant. Improvement of school infrastructure, adequate lighting, water and sanitation for improved hygiene.
6. Challenges faced Instructional material and funding provided by GOK is inadequate, brail is very expensive, lack of funds to repair the ramps for the low vision children, poor attitude by parents who fail to make follow up for their children for expert care, the teacher who was trained has been transferred to other schools, poor perception by parents who believe that surgery will lead to blindness, large number of pupils to be screened by one teacher is time consuming and interferes with teaching programme, religious sects which disregard contemporary medicine
7. Lessons learned Need to educate the parents on CEH and that poor vision affects school performance. Need for advocacy and knowledge based information. Many learners have sight problems which were not detected early. Importance of counselling the parents to love their low vision children but our people have poor attitude and are very ignorant. Referrals care should be brought closer as not all can afford or are comfortable travelling. Importance of understanding learners' needs, some perform poorly in class due to vision problems and cannot read the chalkboard properly. Now appreciate the need to appropriately place the pupils in the classroom. Important not to self-medicate and to always seek medical attention. Giving children a chance to express their problems. Integration is very important.
8. Suggestions for extension to other counties Need to partner with both private and public hospitals. Private practitioners have wide experience, public have poor attitude and are not motivated. More education during antenatal care as most congenital eye cases are because of sexually transmitted diseases, infection, train more teachers and all head teachers for full involvement, bring facilities closer to the people, organize community outreach programmes, project implementers to monitor progress frequently, Teachers to meet and report periodically to share experiences and learn from one another. Provide more screening tools. Train members of the school management committee to assist in community sensitization.

Vision Champions

1. Knowledge of the Child Eye Health Project Knew from the teacher who trained us to show children how to care for their eyes, not to play with sand, fire. Where to go when they have eye problems, need to eat balanced diet, must not fight as one can get the eyes hurt, not to rub eyes when crying, we screen and refer those with problems to the teacher. To visit nearest hospital, how to protect the eyes, not to look at direct sun, not to self-medicate, to seek expert eye care.
2. Selection criteria used Because of interest in the project, I volunteered. I volunteered because I want to help other pupils in case they have problems, some cannot afford to go to the hospital. By our class teachers who had been asked by the trained teacher to select those pupils who have knowledge and wisdom. Because we like the work we have been doing it, there are other pupils trained with us but they have stopped screening because they didn't like the work.
3. Training on eye health received from the project Yes, by our teacher to test the eyes, we were given tools such as E-chart, occluder, tape measures, referral forms, booklets to read. E-chart used to prove child has eye problems, tape measure used to measure distance and read letters on E-chart. Occluder is for detecting if one eye can see. Booklets used for searching information.
4. Usefulness of the materials Yes, they are very useful
5. Response from other students and friends They support us and give us easy time as we screen them, they cooperate and take us seriously, they follow our instructions. Students and friends respond well and follow the instructions, they concentrate on what we instruct them as we screen. They are happy with us.
6. Successful moments as a Vision Champion When I screened one girl and realized her eyes are fine, she was so happy and I was happy for her. I screened many pupils and the teacher congratulated me. I screened a child and found out that he has eye problems and referred him to the teacher who referred him to the hospital. I screened a pupil who was referred to the hospital and was treated and she can now see properly. When I screen and find out that people have no problems. Happy with those who appreciate it when I screen them. Referred them for treatment and some got spectacles and now can see well.
7. Some difficulties in performing your role as a Vision Champion When many pupils want to be screened and we have to share the limited tools, we have few tools compared to the numbers to screen. We screen only the number we can manage
8. Solutions to improve your role as a Vision Champion Provide more screening tools.
9. Willingness to continue being a Vision Champion Yes, we want to help others, Yes, I want to be an optician when I grow up, Yes, I help them and they can also help me
10. Act as a Vision Champion in your village Yes, also screen my parents, friends and relatives. My family and neighbours are happy for my being a vision champion. Yes, also screen them they are happy with us. Yes, I screen even at the village. My family likes it when I screen at the village and I wish to continue

even when I go to high school. Provide us with more booklets, tape measures, occluders and E-charts.

Parents of children with vision impairment

1. Knowledge of the Child Eye Health Project When my son started having vision problems, my friend advised me to see the school teacher who connected me to the education department office and they pledged to give me support. A teacher to handle him was them posted to his school. I have never heard of the CEH project. Through the school teacher who examined the pupils in school. I learnt from my neighbour who had her child given spectacles at school.
2. What sort of sight problems does your child have Totally blind since 2013 after an accident, long and short sightedness, allergy, very poor vision, has to use spectacles.
3. Examinations done to your child Screening by the teacher who referred me to the eye clinic, she was screened and given spectacles, the spectacles are expensive as lenses have to be changed every three months. Was not involved in the examination
4. Has the technology been easy or difficult for them to use No support/facilitation has been provided after screening, was given spectacles, he now writes well and sees better, her performance has improved, self-esteem has improved
5. Has the technology enabled him/her to do things he/she couldn't do before School performance has improved, she can read faster, doesn't strain, concentration in class has become better, has helped him to practically do the work for himself. She is studying though cannot copy from the blackboard as she has to strain.
6. Any challenges faced in using the technology At times her eyes are teary, get red and swollen.
7. Type of support received from the teacher The teacher gives her work to copy from the book rather than from the blackboard. Teacher has also placed her at the front of the classroom to assist her and monitor her progress.
8. Know other children in the village with similar problems I have another child in secondary with the same problem. In my village, my neighbour's child has red itchy eyes. There are many children with similar problems/allergies. I don't know if they received any treatment but I know that they are in school. Yes, there are others in my village and some have been assisted. Others, the parents have refused to go for help because of financial hardships such as lack of travel funds. Yes, and have been supported to go to Kibos school for the blind in Kisumu. Yes, another of my children also hurt her eye and has not received any assistance. I took her to hospital and have been providing the medication. there are many who have not been helped, there is need to screen many, there are many with allergies, there is a lot of dust in the villages
9. Suggestions for helping other children with sight problems Parents should be told to take them for screening, provide free surgery for cataracts as many parents cannot afford, given medication for eyes for our children, provide free spectacles, we need health education and how to care for our children who have eye problems, which foods to eat and also need frequent screening. Parents need support to repair broken lenses or change lenses
10. Has your child been treated with respect Yes, always

11. Lessons learned from the Project

Good eyesight is important, love your children and care for them so that they can be independent in future, importance of assisting a child with visual problems to go through school and participate in games. Eye problems can affect the performance of your child and you don't know, it is important to go for screening

Children accessing technology

1. Knowledge of the Child Eye Health Project

Through the teacher who screens at our school and refers us to the doctor.

2. Sort of sight problem you have

Cannot see far, have to put the book very close to the eyes, cannot read from the blackboard, had cataracts on both eyes and got operated on through Sight Savers, I have eye allergy, during the day my eyes itch a lot. I am long sighted. When I put them and go outside, my eyes hurt, I can see the blackboard but I have to strain and take long therefore I cannot keep up with the pace of other pupils

3. How has the Project helped you

I have been screened and given spectacles though they are now broken, screened and referred for an operation but my father cannot afford. The teacher has placed me in front of the classroom where I can see better, I have been given spectacles which I am now using

4. Easy or difficult to use the technology

Yes, it is better and now my school performance has improved. Sometimes when I remove the spectacles and walk in the sun, I feel pain

5. Support received from the teacher

The teacher has other children write notes and I copy from them. Teacher gives me notes to copy from her book. We work in groups and the members support me. Placement in the classroom is always near the blackboard. Always report any problems to the teacher, told me to put a wet handkerchief on my forehead when I have a headache and tells some 2 boys to escort me home.

6. Know other children with similar problems

Yes, there are others who were helped by the teacher who referred them to the hospital. Yes, I know another with a problem like mine. My mum told their parents to take them for check-up but they refused and said they cannot afford transport costs. No, I don't know others.

7. Suggestions on how these children can be helped

Others to be screened and helped. Many here are poor. They should be examined and treated according to the problem they have free of charge, even they should be given spectacles so that they prosper, those with allergies should be given medication.

Children who received spectacles

1. Differences made by spectacles in life at school and at home

I can see better and read and write well, I perform better in class. I can read small prints on the exam paper. I see without pain but without spectacles I feel pain. At home I don't use unless I am doing school work. I see well, write well and read well from the blackboard. I can see people well. I have no pains. I don't use at home as I leave them at school with the teacher. They prevent light from going into my eyes.

2. Problems encountered when using spectacles

Do not experience any problems, none although I don't see far very well. I cannot read very small prints which are far away, at times my eyes pain and I have to remove the spectacles
3. Length of time taken to get the spectacles after screening Just 3 days after being examined in school. About 3 months, August 2016 to November 2016. I cannot remember but about I month. After screening about 7 months. I month, was screened in August 2016 and got the spectacles in September 2016
4. Satisfaction with the spectacles Very satisfied, I am satisfied, they help me see well. I am not satisfied, they don't help me read small prints
5. Suggestions on how children in need of spectacles can be helped by the project More children to be screened, those with problems with spectacles like me should have them changed. Help all the children who feel pain in their eyes, all children should be screened, more health officers to visit the schools and screen, parents should be advised to have their children screened

Lessons Learned

Generally, all groups interviewed have knowledge of the child eye health project and its objectives. The training content provided by the Project Implementers was reported to be sufficient although there was a feeling that the training programme was too loaded for the given duration and that more materials needed to be provided.

Participants are aware of what child protection entails and there was a mention of ensuring safety of school environment by providing ramps to cater for children with vision impairment. Teachers and Health care workers have played the role that the project assigned them albeit there being some challenges such as heavy work load, limited number of staff, lack of adequate time and enough support especially by the school administration, non-compliance with prescriptions and poverty of parents, inadequate screening tools including the referral forms, unavailability of batteries for the torches in the rural areas and delayed/lack of provision of spectacles for pupils who need them.

Traditional beliefs and practices as well as poor attitude by parents affect uptake of eye health services and use of contemporary medicine.

Vision champions are enthusiastic of the role assigned to them and are willing to continue assisting the teachers in screening and identification of pupils with eye problems both at school and in the community. Children accessing technology and those who have been provided with spectacles are happy with the services given in spite of breakages of spectacles leading to non-usage.

Recommendations

- Train school head teachers for support and coordination of the school eye health activities and community sensitization
- Train more teachers per school depending on the school population to manage the work load
- Train members of the school management committee who can assist in community sensitization

- Train more health workers at hospital level to help manage the heavy work load, internal transfers and rotations
- Train more community health volunteers for wider population coverage
- Extend the training duration for more in-depth understanding
- Provide more screening tools to save on screening time
- Provide more referral forms frequently
- For identification and recognition, give teachers T-shirts, badges and bags to the CHVs
- Incentivise the teachers of sighted children and CHVs by awarding Certificates
- Have a mechanism of replacing broken spectacles and supporting change of lenses to improve on compliance
- Put into place a comprehensive behaviour change and communication strategy to change attitudes and perceptions
- Provide better way forward for integration of child eye health with School Health Programme
- Have in place frequent meetings and project monitoring and evaluation strategy
- Collaborate with other stakeholders such as water, sanitation and hygiene programme

Uganda

A total of two districts – Mbarara and Wakiso were visited for the evaluation of child eye health project. Qualitative methods of data collection; Focus Group Discussions (FGDs) were used among Maternal and Child Health (MCH) workers, Community Health Workers, teachers of sighted children, vision champions, children accessing technology and parents of children with vision impairment. Separate In-Depth Interviews (IDIs) were conducted among teachers of children with vision impairment, school head teachers, parents of children with vision impairment and children who received spectacles. All the participants were purposively selected. **Table 19** shows the number of IDIs and FGDs conducted in each of the four counties per category of participants.

Table 19 - Numbers of FGDs and IDIs conducted in Uganda

District	Method		Occupation	Male	Female	Total
	Type	**No**				
Mbarara	FGDs	**5**	Teachers of sighted children	36	23	**59**
		5	Vision champions	19	30	**49**
		1	Primary healthcare workers	1	8	**9**
		1	Maternal child health workers	1	7	**8**
		1	Community health workers	5	3	**8**
		1	Children provided spectacles	0	3	**3**
		1	Children accessing technology	2	1	**3**
	KIIs	**5**	School head teachers	4	1	**5**
		2	Teachers of children with vision impairment	2	0	**2**
		3	Parents whose children benefitted	0	3	**3**
		1	Ophthalmic clinical officers	1	0	**1**
Wakiso	FGDs	**5**	Teachers of sighted children	21	33	**54**
		5	Vision champions	21	31	**52**
		1	Primary healthcare workers	4	5	**9**
		1	Maternal child health workers	9	0	**9**
		1	Community health workers	4	5	**9**
		1	Children provided spectacles	4	0	**4**
		1	Children accessing technology	2	4	**6**
	KIIs	**5**	School head teachers	2	3	**5**
		5	Teachers of children with vision impairment	1	1	**2**
		4	Parents whose children benefitted	1	3	**4**
		1	Ophthalmic clinical officers	0	1	**1**
TOTAL				**140**	**165**	**305**

The key expected results areas include knowledge about the project, basic training, training on child eye health, perceptions, key indicators of success (relevance, efficiency, effectiveness, sustainability) lessons learnt, challenges, solutions/recommendations.

1. Knowledge about the Project.

Participants were evaluated on how they got to know about and what they know about project

How parents got to know about the project

Evaluation was done by establishing how the parents of children with vision impairment had got to know about the project. Parents got to know about the project in various ways; from the 6 key informant interview responses , one got to know from the school where their child was attending, one from the regional eye hospital when they had taken the child for check-up, another from a blind man on the same village who had accessed the project services, another from the community health worker and the other from the eye health worker who had gone for an outreach to the local health facility.

"Through the man who got blind in old age that had received help from Ruharo Eye center how to cope with blindness. He called me to advise me how my child can be helped having heard that there was a child who walks like him the old man. He advised me that my grandson can be helped to study and also be of valve since he too who was blind but was now teaching others".

"I went to school and found my daughter wearing glasses and I inquired why. The head teacher and the deputy ask me whether I did not know that my child has eye problems. I said I knew it but I just left it since I was not financially able to buy glasses. They told me about the project that had come to help such children with eye problems".

"I learnt from health workers who came to Entebbe to work".

I was told from Ruharo hospital that there is a project called Seeing is Believing that can help children with eye problems.

"I learnt from village V H T worker from Nansana".

"I heard from school".

What participants knew about the Project.

This was measured based on responses from the participants in the Focus group discussions and the key informant interviews.

A project that focuses on teaching children about eye health; this included teaching children how to take care of their eyes; specifically using a white cloth to clean eyes, using clean water, avoid games that can cause injuries to the eyes and use of herbal medicines.

The project focuses on building capacity; the participants observed that the project conducted training of pupils, teachers and health workers on issues related to eye health amongst children.

About 1040 pupils were referred and dispensed with spectacles. About 80 pupils had low vision. Vision champions were trained from 50 schools. Vision champions also trained other pupils. (OCO Wakiso)

One of the teachers, had this to say,
"This project teaches teachers to train the children to screen because the teachers are the ones who over stay with the children so they know the children better".

Provides support to children with eye defects; the support was broadly considered in the areas of screening, management and treatment and referrals to higher facilities like Kashari health center in Mbarara in cases where lower health facilities diagnose complications.

It helps to identify children who have eye problems and examine them and refer them to the health centers for treatment. FGD 3 TEACHERS OF THE SIGHTED-WAKISO

A project with visiting doctors - One vision champion at Mbarara described what the project did as:
" Helps children with eye health problems and invites a doctor to see then treat".

The project provides eye equipment and supplies for screening and management of eye conditions amongst children in selected schools. Schools received eye charts and torches; some of the beneficiaries also received spectacles courtesy of the project.

The project trained peers to support in screening for eye defects and information dissemination at school level

Trained Vision champions to check their fellow children then they refer to the teachers then the teachers refer to the hospital. KI OCO WAKISO DISTRICT

Other participants broadened this discussion to include the aim of the eye project.

2. Training

Basic training of participants
The institutions where the participants had their basic training included**:**
a) For the health workers;

Gombe, Butabika school of psychiatric clinical officers, Jinja nursing training school, Nsambya hospital, Mulago paramedical and nursing school, Kabale nursing school, Virika school of nursing and Midwifery, Kampala international university, Ishaka, Nyakibale nursing school, Ibanda nursing school.

b) For the teachers, the following teacher training Colleges(TTCs):

Namatamba TTC, Kabakunda TTC, Entebbe TTC, Kibuli TTC, Nazigo TTC, Kyambogo TTC, Kaliro TTC, Bishop Stuart, Lady Irene TTc. Muhungiro TTC, Bukedi TTC, Kamagga TTc, Nkokonjero TTC, Buloba TTC and Kamuli TTC.

Nature of previous training:
Participants in the key informant interviews (school head teachers, OCOs and teachers of children with vision impairment) and the focus group discussions (MCH, PHC and CH workers) were asked about the training previously acquired before the onset of the project to establish whether the content included child eye health.

A majority of the health workers and teachers interviewed reported not receiving any formal training on eye health or child eye health before the project. The few who reported receiving pre-service and in-service training indicated that the training was more generic and academic.

"Yes, I received training on eyes but not into details, I received information on eye care of human adult that was basic to all".

From the majority of the PHC nurses *"Yes, it was general eye training".*

From the teachers of sighted children the following was mentioned:
"It was a general Visual impairment of the eyes".

"Yes, some bit of it, about the hygiene of the eyes".

Project training on child eye health
The participants in the key informant interviews (school head teachers, OCOs and teachers of the children with vision impairment) and the focus group discussions (MCH, PHC, CHWs, vision champions, teachers of sighted children) outlined what was taught during the training on child eye health as follows:

a)Teachers:
- Screening children for visual problems.
- Understanding the key structures and functions of the eye.
- Different eye diseases.
- Trained to train vision champion.
- To identify children with eye problems and teachers.
- How to screen for example using signs and symptoms.
- To train teachers and train the children and train the vision champions to train others
- How to identify children who have eye problem e.g. low vision, cataract
- I identify eye conditions at early stage so that we take them for treatment.

b)Vision champions mentioned what they were taught including:
- Keep the eyes healthy by eating fruits and vegetables
- Wash the eyes every morning,
- Avoid playing with the sand,
- Feed on balance diet,
- Avoid looking at the sun directly,
- Use clean water when washing the eyes,
- Avoid reading the book on bright sun light,
- Avoid fighting,
- Not to play with fire.

MCH Workers

- How to treat and screen in case of a new born with tetracycline.
- How to advise the mother about the eye care; if the eye gets a problem they should not use herbal medicine
- Every new born should be given tetracycline 1 dose and continues for 7 days if there is a discharge.
- During immunization you can identify the children with eye problems.
- Strengthening of the entire medical team to assist the children with the eye problems.
- Examine the conditions using Tape measures, torch, and numbers.

Head Teachers

- Examination of the eyes
- Screening of the children's eyes.

PHC Workers

- First aid to the child with injuries in the eyes then if it fails, you refer.
- Examine a child's eyes
- Screen for vision

OCOs

- Low vision,
- Refractions
- Assess a child on low vision
- Manage the children with eye problem
- Identify children with vision problem.

CHWs

- How to examine children with abnormal eyes and normal eyes.
- Identify and distinguish sick eyes and normal eyes.
- Learnt that people are suffering due to neglect and eye conditions can be managed.
- We can help to reduce the number of blindness in the children and bring the solution to the problem by educating the people how the normal eye can be.
- Teach people not use the local herbs in the eye.

Sufficiency of the training on child eye health

Majority of the teachers expressed that the training was not adequate demanding for refresher courses and further training:

Training was not enough, there should be a refresher course for the training.

One day training project was not enough, we need a second workshop to gain more skills.

Teachers were always rotated from one school another so more training to other teachers.

However, not all found the training insufficient, one of the teachers said, *"Yes, I can now carry out the work to identify and train teachers and non-teaching staff'.*

The health workers except the clinical officers were in agreement with the view of the teachers as such:

No, it was not enough; It was a very short time.

The project could have taken us to visit Mengo hospital since they have many conditions.

No, the training was not enough, it was a very short time.

I wanted to go deeper especially to learn more about other conditions like allergic conjunctivitis which is very common here

It had a lot of talking we need more training since the clients come with so many different conditions of the eyes.

There was more of theory and less practical work on real life conditions.

Post training support and mentorship
Participants were asked whether they received support and mentorship after the training and most in the various regions had been followed up for support and monitoring

3. Perceptions

Much as the teachers and health workers were trained and equipped to screen refer and treat the parents to whom the children belonged were a key determinant factor in the success of the projects intervention and therefore their perceptions like for any other person needed exploration.

The parents' perceptions regarding children with eye conditions included the following:

- One child had a problem but the parent refused the child to go for operation because the relative died after operation.
- Parents of squints could refuse to take the children for operation as this was regarded a clan or family condition not manageable by medical intervention.
- Born again parents refused to take the child to the hospital saying God will heal the child.
- That they have no funds to fund the children who are staying with them.
- Some parents said," I know you as a teacher not a doctor, since when did you know who needs what spectacles?" so they refused the children from using the spectacles.
- Children were referred but the parents refused that the children were born like that and so that was not a disease.
- Parents think the children with vision impairment is wasting their money; disabled children are adding more problems to them.
- Other parents just thought their children wanted to wear glasses like others just for fancy.
- Previous medical attention and surgery on the child did not yield good results therefore seeking further medical attention is a waste of time.

"Drugs are never there at the health centers why waste time going there?"

4. Lessons Learnt

Key lessons learnt and best practices from this project

The key lessons learnt from this project as inferred from the participants' responses, project report and observations have been summarised as follows:

1. Multiple and systematic approach employed by the Project

The project used various methods to reach preschool, in school and or out of school children to create awareness and impact on child eye health. The preschool and out of school children were reached out through their parents by involvement of community health workers and fellow children (the vision champions). The preschool children (new born and infants) were also targeted through the health workers (midwives and nurses) at birth, immunisations and on any medical check-ups. The project's approach was geared towards strengthening the health referral systems as well.

2. Strong Collaboration

The project worked together with various central and local government line ministries which included Education, Health and Gender and rehabilitation which is an enabler for smooth phasing out of the project and enhances sustainability of the child eye care activities.

3. Capacity building

The project offered a range of capacity building services including training of teachers, health workers, community workers and school children and provision of eye care equipment, eye drugs, spectacles and low vision devices and establishment of vision corners in some schools where vision self-assessment can be done any time by any one.

4. Child to child approach

The project had a unique peer model approach that empowered children to raise awareness and promote child eye health among fellow children at school and in the community

Further lessons learnt are hereby expressed through the changes in attitude and behaviour brought about by the project as below:

5. Changes as a result of the project

Generally, participants reported improvements in level of confidence: views from pupils, teachers and health workers, arguing that they are able to perform tasks that they couldn't before the project.

Positive contributions of the project to improving the health of children were observed by pupils, teachers, parents and health workers, these include:

Changes amongst the pupils

More children with previous eye defects have been able to regain their sight; this was attributed to operations and provision of spectacles through support from the project.

"We referred 35 children at Entebbe and they were treated or given spectacles". ***Teacher of sighted children***

Improved vision amongst beneficiaries
"I was not seeing well the chalk board. My eyes were paining me but now I can see well". ***Child provided with spectacles***

Children are more engaged both at school and at home
I am now able to do work at home. Mother could not send me to buy anything at the shop. ***Child provided with spectacles***

Changes amongst the teachers
Improvement in classroom awareness and management; with the knowledge teachers received on screening of pupils with eye problems, they have been able to support these children's learning. Amongst these was organizing the sitting arrangement to ensure that either these children sit in front or at the back based on their eye defects.

Working relationship between the schools and health facilities; through the project, there has been improvement in school referral system.

Early detection of eye defects amongst school going children

The training from project has helped us to be more inquisitive about child eyes and more observant when a child is not performing well in class. ***Teacher of the sighted***

It has changed my attitude towards the children because they may appear normal yet they are not normal. ***Headteacher***

Changes noted by the parents included:

Improved activity amongst the beneficiaries
It enables him to move a round with the glasses. He uses braille in class to study. He can even ride the bicycle. ***Parent of child with vision impairment Wakiso***

Improvement in care given to children with eye defects

The child was well cared for taking her to various places for tests, they advised me to bring the child immediately any discharge is seen on the eyes. ***Parent of children with vision impairment Mbarara***

Improved performance in class and at home; this was noted by parents of blind children from both Wakiso and Mbarara.

It has made the children happy seeing the real world. They have even improved in their performance in school. ***Parent of two children with vision impairment Mbarara***

She could not run well, she can now play well, she is no longer falling when running, she can now watch TV, see objects from afar. ***Parent of child with vision impairment Wakiso***

Changes amongst the health workers

New skills acquired
"The project has built capacity in us to assess the child from day 1-5years".

"I did not know how to use the magnifying glasses and torch but I can now find a problem in the eyes; am able to screen now".

Improved referral system
I referred the child with swollen eyes to health center IV
I referred a child with crossed eyes and he was worked on. **MCH Midwives**

Better understanding of eye conditions amongst children
I got empathy for the child. I also explain to my fellow work mate.
If this child is not managed well I will feel bad as if they are my own child. **MCH midwife**

Integration of child eye health with immunization
At first it was not a must to assess every child that comes for the eyes but now we asses all whether has come for malaria treatment we assess the eyes as well. **PHC nurse**

Development of better health infrastructure
Before the training, we had no eye care services but now the mothers come with the babies and the clinician shows them where the child is referred and operated. **PHC Nurse**

Improvement in the treatment of child eye conditions amongst health workers
New born babies given routine tetracycline and may use iv Ceftriaxone when the baby has severe discharge in the eyes. **MCH Midwives**

6. Challenges encountered in the project

The challenges encountered during the project time varied among the various participants hence their categorisation below:

Challenges faced by the teachers

The teachers and school head teachers encountered very many challenges as they carried out their tasks:

- Transport to take children to hospital was not available.
- Some teachers refused to be trained.

"Training fellow teachers was very difficult because they think you were being given a lot of money but do not want to share".

- Referred children were not worked upon.
- Parents were minimizing the problem that's minor.
- Children of 15 years and above were not being worked upon so parents never felt happy.
- Reports were made and sent to the district but with no feed back to the trained teachers in schools.
- Materials for screenings were not enough such as visual acuity chart
- Children were faking that their eyes are sick during screening.
- Teachers were not issued certificates so parents would not want them to screen the children. Parents do not have confidence in the teachers; they refuse to listen to us and fail to take action.
- Parents of the identified children if called have often failed to come so the teachers had to take the children to health centers by themselves.
- Time was not enough for us to finish screening.
- Children are very many yet materials were not enough for screening so only one teacher was screening at a time. If all the four teachers were screening, we would have done enough work.

Challenges faced by the health workers

The mid wives and primary health care workers had common challenges detailed below:

- We refer but we do not know whether they were worked on because there was no feedback.
- Sometimes we do not have the drugs to give to the children.

"A child from school is referred to you and you are expected to manage the child from the health unit but you also refer to other health unit because you have no equipment's, no medicines to help the referred cases."

- Some parents refused that their children are not blind.
- You refer the children and the parent s says I do not have money, they keep the referral letter at home after one month they come back."
- Parents are very lazy; the baby's eyes are tearing for over one and half years but the mother still says am not going to hospital".
- Drugs are not available where we could treat specially drugs are not supplied i.e. allergic condition drugs but antibiotics are available.
- We were under staffed and the children are very many.

The nurses and midwives made the following observation that was of interest:

"The teachers were given something for the work they were doing, if given something the health workers can also do better".

The ophthalmic clinical officers outlined the following challenges

- Lack of follow up and feed backs on how to handle the children.

- The project sometimes was not able to supply the equipment e.g. drugs, spectacles, low vision devices etc.
- Teachers were not trained in low devices had to go back to school to follow up especially telescope was not used.
- Most teachers were trained but the problem most teachers were transferred and they carry all the equipment they were given.
- The Project was meant for four years, the time allocated was not enough for recruiting, training, getting devices this took a lot of time. Implementation time has been short.

Challenges faced by vision champions

Denial: other pupils were seen to deny having eye complications; because of this, they would not accept to take the tests.

Resistance from fellow pupils: Vision champion indicate pupils especially those who are in upper classes resisting some tests like using a torch. Others also refused to adhere to better eye management practices because it was information coming from fellow pupils

Resistance from family members: As these children attempt to extend this knowledge outside school, they are faced with resistance especially amongst those who are vulnerable to eye complications because of the nature of their work.

My aunt refused to listen, she said, 'if I don't look at the computer where will I get the job and the money?' **Vision Champion Mbarara**

Some pupils were ignorant about the role of vision champions: vision champions especially from Wakiso observed that their colleagues seemed not to appreciate the role of vision champions in the project. They also observed that little time was allocated in sensitizing the pupils on their role.

Challenges addressing expectations from pupils: the vision champions found themselves challenged especially when they had to deal with pupils that were coming from resource limited households and needed financial support. Other children also expected them to behave in certain ways because of their new roles as vision champions.

Challenges faced by CHWs

Facilitation challenges: the VHTs observed inadequate facilitation to enable them do their work in terms of airtime and transport as they had to follow up children and visit various homes across the villages.

Challenges in referral system: CHWs observed that some health workers have poor attitude to patients especially when they are referred by CHWs with some delays in receiving services

Recognition: after successful completion of training, the project would award certificates to the health workers to symbolize actual completion of this formal training. This does not only

give the CHWs confidence in their work but also the community would appreciate the skills they received, however this was not done after this project's training.

Identification: communities need to be able to identify CHWs that are working with the project. To them items like badges, T-shirts or bags that are clearly labelled with the project logos would be resourceful, unlike other previous projects there was nothing of that sort provided by this project.

The challenges faced by the spectacle users and technology users included:

- They are good but when I remove I feel pain and headache.
- He was slow to adjust to learn the braille and has been taken back to the lower class.
- Fear to lose the telescope so it is kept at school. Nothing to use while at home,

7. Suggested Solutions

In view of the above mentioned challenges, the respondents in their various categories suggested possible solutions.

The vision champions made the following suggestions:

- Training of more vision campions at school level to reach out to fellow children with eye health information.
- Sensitization should focus on addressing common beliefs about spectacles and those who use the technology.
- Broadening the scope of vision champions to incorporate mentorship from medical personnel/optometrist.
- Scaling up of the project: continuity of the project amongst implementing schools and also incorporate secondary schools since pupils aged 12 to 15years are found mostly in secondary schools.
- Vision championing should continue into secondary schools

The teachers proposed feasible strategies and specific changes to be incorporated in further interventions to enhance the performance of the project and promote child eye health**.**

These include:

- Facilitate the trained teachers as trainers of trainers (TOTs) such that the low cost can be an added advantage to the project to expand to other schools
- Strengthening outreach programs: this will enable exchange of information and skills between the schools and ophthalmologists which can be used to improve project outcomes.
- Improving the scope of training especially on eye health at the training institutions; this should equip both health workers and teachers with practical skills set to screen, manage and refer children with eye complications
- Regular examination of children eyes; increasing the frequency at which these activities are conducted at schools will enable more eye cases to detected much earlier
- Synchronizing school activities to accommodate eye health training and screening; planning these activities in the he school program can make more staffs and pupils to be actively involved and also better outcomes can be achieved.

- Provision of literature to teachers to refer to; because some of the teachers are trained by fellow teachers, their access to all relevant information might be limited, efforts to avail written literature to schools can enable them perform better.
- Strengthen the community support services like through the VHTs, churches and mosques to provide health information relevant to eye health. This can create a level of awareness that may encourage uptake of project interventions.
- The vision clubs should be opened up in the school so that we continue with it when the schools open.
- Ministry should liaise with the schools so that teachers are given enough time and specific days to do the work.
- Let the children be given priority when they go to health centers especially when they come in school uniform.
- Medical workers to come down here and talk to the teachers /parents, District Education officers and Inspectors of school.
- Use other parents also to testify to other parents whom their children has been helped.

The health workers also proposed the following strategies for future re-planning to promote child eye health:

- Government should use the newspapers, Tv to sensitize the people about the project. Parents should be sensitized by VHTS who are in the villages.
- Avail drugs for allergies in the health centers at all levels such as Probeta eye drops.
- Recruit more ophthalmologists.
- The ophthalmic officer should make some specific clinic days/ outreach days at the health center IIIs so that patients are mobilized early .
- Health education on personal hygiene should be done in school on immunization days and also to the local community leaders etc.
- Eye conditions are there in the country which people do not know so the project should continue.
- The district could give support supervision by issuing some funds. Optometry assistants in every health centers 3 to be trained as ophthalmic assistants in all health centers.

8. Efficiency of project interventions

The peer model of vision champions was able to train other children, this model also replicated with the teachers is likely to produce better results especially where buy in is well sought. The peer model is a lower cost model with the potential to reach many especially at institutional level. Similar is the CHW model,

9. Sustainability of project interventions

Establishment of a vision centre at the district health office in Mbarara with an OCO at the office, with commitment of some of the district funds to eye care would likely make the project sustainable to some extent.

Community engagement through the community health workers is also a promising factor as some communities had already recognised CHWs as a good resource in case anyone had any eye problem.

Establishment in the schools of vision champions and teachers responsible for eye care offers hope that child eye care may continue in schools enabling early detection and possibly early management of the children's eye problems.

Engaging the government line ministries and their participation in this project is geared towards enabling smooth phasing out, however, there still exists a big worry on the government's commitment to continued provision of drugs, surgery consumables, spectacles and low vision devices which are not yet affordable to many that need them.

10. Conclusions and Recommendations

Conclusions

This end term project evaluation tried to reveal detailed information about the project and collected the feedbacks of many beneficiaries and service providers from school, community and health facilities**.** The information gathered from the focus group discussions and key informant interviews coupled with the review of the project reports upon analysis has further been summarised as follows

- The project was known by the school, the local community and health facilities where the project operated**.**
- The project contributed immensely towards the behaviour change of teachers towards pupils concerns especially the visual and health concerns of the child, enabling them to explore further on the causes of poor performance of the child first before punishing the child.
- The project built capacity of the stakeholders through trainings, materials provision and creating assets for the community such as the vision corners made at the health centre IVs. The different stakeholders also made invaluable contribution to the success of the project.

Recommendations

In light of the major findings of the evaluation and conclusions made, the following recommendations have been suggested in order to improve the interventions on child eye health in the schools, community and health facilities:

- Ensure the training targeted for teachers, vision champions and health workers is cascaded to others in other schools, communities and health facilities maintain the standard and quality. The use of peer model of training by teachers and vision champions may be cost effective.
- Establish strong regular and periodic follow ups and supervision of eye care activities even after phasing out to strengthen the referral system.
- Engage religious and political leaders and elders to sustain campaigns and community engagement.
- Mobilise local resources and lobby government to mobilise funds to sustain child eye care activities.
- Put a system in place such that the community participates in contributing finances and other resources to sustain the child eye care activities.

CASE ONE
"A" is a female beneficiary of the project under the optical services. She is an 11 year old girl in primary five class.

She was abandoned by her young mother before the age of one year after she had been very ill for a long time. She was brought up by the land lady where the mother had been a tenant. Because of the longstanding illness in early childhood she suffered some growth retardation including visual impairment and rigidity of the arms and legs.

She received medical attention including physiotherapy, nutritional therapy and visual assessment. With the commitment from the caregiver and the zeal that "A" had she kept going to school though with challenges in performance.

Before the project came to her aid she used to sit at the front of the class but could still not read what was at the blackboard. She used to walk to and from the chalk board to read and then write. By then she was using only one eye (the right eye).

The project helped her to get a telescope which helped her greatly. She no longer has to move back and forth in class to read and write what is on the chalk board. Her performance improved greatly as speed increased and vision improved in her single functional eye. Her self-esteem in class was raised because she can also contribute during the lessons and is no longer the last in class. Before the project, no one had ever seen her smile but now she is always smiling.

The care taker noticed that her activity out of class and at home increased, she can run and do some errands cheerfully. The project increased value and hope in her child.

She has learnt to take care of her telescope and always looks forward to going to school. She is expecting to continue in school up to end of secondary school.
The only challenge she has now is that she uses the same hand to hold the telescope and also write as the left hand is still rigid. She wishes there was a kind of frame that can hold the telescope on her face so that she can freely write.

CASE TWO
"B" is a beneficiary of the child eye health project under the capacity building and refractive services. He is a twelve year old in primary six.

Before the project he used to having challenges in reading at the blackboard. He would have to read from the neighbouring pupil in class. When the project came to class to assess the children, he was told he needed glasses. He benefitted from the project by getting the glasses free of charge. This came as great relief to the father who also needed glasses but could not afford buying his own yet.

Acquisition of the glasses not only improved his performance in class but instilled great interest in him concerning child eye health that he volunteered to train as a vision champion. He feels he can be of great help to others who need eye care.

He has great ambition, is currently involved in sports and wants to become a famous footballer.

He wants to continue as a vision champion throughout his secondary school life even at university level.

Tanzania

A total of two regions – Mwanza and Mbeya, which included five districts (Misungwi and Magu in Mwanza, and Kyela, Rungwe and Mbeya DC in Mbeya) were visited for the evaluation of the child eye health project. Qualitative methods of data collection; Focus Group Discussions (FGDs) were used among Maternal and Child Health (MCH) workers, Community Health Care (CHC) workers, teachers of sighted children, vision champions, children accessing technology and parents of children with vision impairment. Separate In-Depth Interviews (IDIs) were conducted among teachers of children with vision impairment, school head teachers, parents of children with vision impairment and children who received spectacles. All the participants were purposively selected. **Table 20** shows the number of IDIs and FGDs conducted in each of the four counties per category of participants.

Table 20 - Numbers of FGDs and IDIs conducted in Tanzania

Region	District	Beneficiary group	Assessment method	Number of IDI/FGD
MWANZA	Misungwi	Children accessing technology	FGD	1
		Parents/guardians of children benefitted from the program	IDI	2
		PHC workers	FGD	1
		MCH workers	FGD	1
		CHC workers	FGD	1
		Teachers of sighted children	FGD	2
		Vision champions	FGD	1
		Head teachers of schools with the vision champions	IDI	3
	Magu	PHC workers	FGD	1
		MCH workers	FGD	1
		CHC workers	FGD	1
		Children using spectacles	FGD	1
		Teachers of sighted children	FGD	2
		Vision champions	FGD	1
		Head teachers of the vision champions	IDI	3
MBEYA	Kyela	PHC workers	FGD	1
		MCH workers	FGD	1
		CHC workers	FGD	1
		Children using spectacles	FGD	1
		Teachers of sighted children	FGD	2
		Vision champions	FGD	1
		Head teachers of the vision champions	IDI	3
	Rungwe	Teachers of children with vision impairment	IDI	3
	Mbeya DC	Teachers of sighted children	FGD	2
		Vision champions	FGD	1
		Head teacher of the vision champions	FGD	1

Emerging themes include: knowledge of the Child Eye Health Project, training on eye health received from the project, perception of sufficiency of the training received from the project, knowledge of child protection, role in the project, challenges faced, lessons learned and suggestions for extension to other regions and districts.

1. Teachers of the Sighted Children

Knowledge/awareness of the project

- Almost all teachers interviewed were aware of the project. Majority of them reported to be informed by the DEO about the project through an invitation to attend a one day training on child eye health.

Child eye health training during pre or post service

- None of the teachers had ever received a training on child eye health prior (pre-service). Few of the teachers reported to remember some few stuffs on eye health from their *biology lessons* during secondary school.
- All of them admitted that the training from this project was their **first ever** as far as child eye health is concerned.

Capability attributed to the child eye health training

The training on child eye health enabled the teachers to perform various activities as they could not do before. These are summarised hereunder:

- It gave them an understanding of the various parts of the eye
- Ability to identify the normal eye and the abnormal eye just by observation
- Ability to screen children for low vision using the given charts, tape measure, torch and an eye cover.
- Ability to provide a first aid to a child who suffered either injury or allergy.
- They were able to identify some eye conditions like trachoma, squints
- Majority testified that the training enabled them to understand that squints are treatable
- Through training they were able to educate students, vision champions and other colleagues on various ways of caring for the eyes and the need importance of doing that.
- The teachers were able to fill in referral forms for students identified to have an eye problem.
- The training also gave them an ability to properly record and report using a standard tool the number of students screened, students with eye problems etc.

Was the training sufficient?

- Majority of the teachers reported that the training was not sufficient. Reasons being that the training had a lot of materials to be covered within a very **short time.**

Post training support

- Almost all of the teachers reported to have **never** received any form of supportive supervision or post training support from the moment they were trained.

Child protection

- Some of the teachers understood what child protection meant. Most of them didn't know what it means.
- **None** of them received a training on child protection during the child eye health training or anytime during the project. The few who reported to understand got that information from other sources not related to the project for instance one reported to gain that knowledge from a meeting with security committee.

Roles played in the project

The teachers reported to have done the following roles at one point or another during the project.

- Identifying students with some eye problems
- Screening students for visual acuity using the E cards, ocluder, or the school screening board (place in a wall of some schools)
- Educating students and fellow teachers on the ways of caring for the eyes and the importance of eye care.
- Formulation of health clubs and educating the members.
- Selection of vision champions, meeting with them, preparing songs, stories and other activities to educate others students.
- Provision of referrals and escorting referred students to the designated health facility

Challenges experienced while performing their roles

These were the most common challenges expressed

- **Lack of time**: Most of the teachers reported to use their extra time to perform some of the project intended roles such as screening students, meeting with vision champions etc.
- **Lack of referral and reporting forms**: Some of the teachers reported that they lacked the reporting and referral forms. They were given a sample for them to photocopy but given the shortage of funds (no allocated funds for the project) they failed to accomplish.
- **Lack of funds**: Most of the teachers reported that they failed to escort referred students to the health facility due to lack of funds to cater for
- **Large number of students compared to the number of trained teacher**: This was reported by most of the teachers that only training only one teacher and expecting to screen or educate the whole school was a great challenge.
- **Poor response from parents**: Majority of the teachers reported that parents refused to cooperate with them in case a student was found to have eye problem. In most cases the parents refused either due to **low knowledge**, **lack of income** to take the students to a hospital, **tradition and beliefs** on local herbs or magical stuffs and at times it was just a **mistrust from the parent** claiming that a teacher can never be a doctor!!
- **Poor eye care services**: A number of teachers also reported to have found either non - existent eye care services or of poor quality at a referred health facility.
- **Late provision of spectacles**: This is in line with the poor eye care services. Some teachers reported to have received spectacles for students who have been prescribed in up to six months from the day of examination.
- **Poor compliance of students to eye care medicines and spectacles**: It was reported that majority of the students were not fully complying with the prescribed spectacles or eye care drugs, this was mostly due to socio-cultural beliefs among their parents. The situation posed a great challenge to the teachers as primary care takers.

- **Transfers**: Some of the teachers reported to be continuously reallocated within the districts or regions thus interfering their intended roles at a particular school.
- **Poor cooperation from fellow teachers**: Some teachers reported to have received no support from fellow teachers. Most of their fellow teachers believed and claimed that they were being paid extra amount of money to undertake the project roles and so in that sense they couldn't assist them for free. At times the limited time and the large number of students were reported tobe the causes for other teachers.
- **Lack of supervision visits**: All of the teachers reported that since a training day, this was the only time they have seen a person from the project. They had nowhere to report or seek for clarification during the whole project's life.

Key lessons learnt from the project:
These are some of the reported lessons learnt from most of the teachers interviewed.
- **Increased knowledge and skills:** Majority of them acknowledge that this training was one of a kind to them. It gave them a form of knowledge and skills they never had.
- **Identified and assisted family members, relatives and colleagues with eye problems:**

Most of the teachers also reported that the knowledge acquired from the project has helped them to identify eye problems from their relatives and friends and refer them for treatment accordingly.

Case study: One of the interviewed teachers in Kyela, Mbeya reported to have identified her 2 year old niece with trachoma. She referred her to Mbeya regional referral hospital where she was successfully operated and her vision was completely restored. She was quoted saying "*Her parents thought it was just a normal inborn kind of thing so they never bothered, but from the moment I identified the problem and referred them, they were so thankful to me. And I feel so rewarded"*

Suggestions to improve the project/ getting it extended to other districts or regions
- **Training of more teachers:** Majority of the teachers suggested that training should be increased to cover many teachers and if possible all class teachers should be trained. This will help in case of transfer or absenteeism of a trained teacher due to any reason.
- **Increase training time:** most of them suggested that in future such trainings should be conducted in at least 2 to 3 days so as to allow for proper assimilation of the packed materials.
- **Fully involvement of head teachers and other leaders:** It was pointed out that if the head teachers and village leaders will be made aware of such projects it will be easy for the teachers to perform their roles smoothly as they will be in charge of educating parents and making them aware of the project.
- **Use of behavioural change communication materials:** some of the teachers suggested that use of BCC materials such as flyers or posters may ease their work as most of the community will be aware thus trust will be gained.
- **Regular monitoring and supportive supervision:** Almost all of the interviewed teachers suggested that there should be regular monitoring and supportive supervision visits done to assess and track their performance.

2. Head Teachers of Schools with Sighted Children

Knowledge/awareness of the project

- Majority of thehead-teachers interviewed were aware of the project. They reported to have known the project through a health teacher who received one day training on child eye health from the project.

Child eye health training during pre or post service

- None of the head-teachers had ever received a training on child eye health prior (pre-service). Few of the teachers reported to have received secondary training on eye health from their *health teachers*.

Roles played in the project

- The head-teachers reported to have done the following roles at one point or another during the project.
  - Coordination of the school time table to allow for eye care service to be done promptly.
  - Educating parents of children with eye problems
  - Assisting the school health teacher with some funds to cater for transport to health facility in case of a referral.
  - At times ensuring availability of referral and reporting forms by photocopying them

Challenges experienced while performing their roles

These were the most common challenges expressed

- **Socio cultural issues with some parents:** Most of the head-teachers reported to have challenges when it came to educating parents. These were attributed to their low knowledge and socio-cultural beliefs along the eye care services being offered at schools.
- **Partial involvement in the project:** Most of the head-teachers reported not to be fully involved in the project. This made them unaware of the project and further deprived their full commitment in the intended roles.
- **Transfers of teachers:** Some of the head-teachers reported that teachers in their schools are constantly being transferred to other schools. This might deny them the opportunity for student eye care services should it involve the trained health teacher.
- **Lack of time for eye screening:** Some of the head-teachers said that it was not possible to allocate time for eye screening since the major school timetable is fully packed. In which case teachers had to use their extra hours to perform such roles.

Key lessons learnt from the project:

- **Improved cleanliness:** The students' health clubs helped a lot in improving the school's surroundings and general cleanliness.
- **Cleanliness among students:** Some of the head-teachers reported that since the project was rolled out in their school, the students became much aware of their cleanliness especially face washing.
- **Identification of eye problems among students:** Most of the head-teachers acknowledged that the project enabled the identification of most students who had eye problems and through the project they were successfully treated.
- **Increased trust from amongst parents:** Some of them reported that the project has enabled them to gain more trust from the parents. This is because through the teachers,

some eye conditions were discovered from students and treated. This made their parents trust the teachers more than it was before.

Suggestions to improve the project/ getting it extended to other districts or regions

- **Use of audio-visual materials:** Some of the head-teachers suggested the use of audio-visual material to educate and sensitize students on eye care services. This were found to be useful since they can be easily learnt and built in long term memory.
- **Fully involvement of the head-teachers:** They suggested that they should be involved from the early stages of the project for them to understand and to assist in fully whenever needed.
- **Use village and local leaders:** It was suggested that the use of local leaders can be the best gate-way to the community where children, parents and other caregivers live. Once the community becomes aware, it would have been much easier for the teachers to undertake their roles smoothly.

3. Teachers of the children with vision impairment

Knowledge about the project: We interviewed some teachers of children with vision impairment. Unfortunately they were not able to differentiate between the BHVI Child eye health project and other projects related to eye health.

Training from the project:

- All of the interviewed teachers reported to have had an in-service training on children with special needs including children with vision impairment.
- Some reported to have received a three day training while others reported a 5 days training from the project. (This could be due to confusions on which project exactly!)
- Contents of the training were mainly on how to deal with deaf-blind children and how to involve the community in taking care of children with special needs. (Again I don't think this was BHVI sort of training!)

Challenges:

- **Lack of equipment:** They reported to have lacked key equipment like Braille machines, hearing aids and large print materials.
- **Poor support from top officials:** Some of them reported not to be recognised by some of the top authorities. This led to poor consideration of their needs whenever raised.

Lessons learnt:

- **Identified and differentiated children with low vision from Blind:** Some of them reported that the training enabled them to identify children with low vision whom they used to think they were blind. From that lesson, they were able to take them to relevant classes**.**
- **Involvement of the community:** They reported to have learnt on how to involve the whole community on matters pertaining to care of children with special needs.

Suggestions to improve the project/ getting it extended to other districts or regions:

- **Increase number of trained teachers:** most of them pointed out the need to train more teachers given the increasing number of children with special needs in such schools.
- **Involve community and local leaders:** For the efficient community involvement, these teachers thought it would be essential to make the leaders aware of eye care services and children with special needs.

4. Vision Champions

Knowledge/awareness of the project

- All of the interviewed vision champions reported to have known the project from their school health teacher.

Selection process:

- Majority of the vision champions reported to be selected by their health teachers. Few of them volunteered to be vision champions.

Family and fellow students' views on their selection as vision champions:

- Most of them reported a positive view from both parents, family and fellow students.

Training process:

- All of the interviewed Vision champions reported to have received a training on their roles from the health teacher. They were also given a hand book for referencing together with a badge for their identification. They further pointed out that the books were readable and easily understood.

Roles played within the project:

The vision champions reported to be doing the following roles:

- Identifying students with eye problems and refer them to school health teacher.
- Educating their fellow students on how to care for their eyes.
- Assist in screening their fellow students
- Supervise for environmental cleanliness and ensure face washing practices are done among their fellow students.
- Distribute flyers
- Sensitize fellow students to use screening chart (walled) to check their vision ability.
- Compose songs, dramas and such activities to educate their fellow students.

Challenges experienced while performing their roles

- **Refusal/ poor response from fellow students:** Most of them reported that their fellow students were not readily cooperative. This was mainly due to the young age of some of the Vision champs but also just some other students' attitude including mistrust.
- **Fewer screening charts:** This led to a limited number of students screened compared to the available number of vision campions.
- **Mistrust from some parents:**

Lessons learnt:

- Helped family members such as grandparents and siblings with eye problems and they were treated.

- Some reported to have identified a child with sever eye condition requiring surgery, she was operated successfully and this made them feel happy and much confident.
- The acquired knowledge is a treasure which can be used in lifetime even after completion of school.

Vision champion elsewhere:

- All of them reported to have done their roles not only in schools but also within the villages and communities they come from. They educate and identify kids at times adults with eye problems.

Wish to continue being a vision champion:

- All of them expressed their need to continue becoming vision champions. Some pointed out that if possible the program get extended to secondary schools so that they can still be the vision champions there.

5. Children Accessing Technology

Knowledge/awareness of the project

- All of the interviewed children accessing technology reported to have known the project through outreach services that are done in their school and from the health teacher.

Eye problems experienced:

- All of them reported to have had problems seeing far, reading from the black board to the extent that a fellow student had to read for them before they can write.

Examinations done:

- They reported to have been checked for visual acuity and fundoscopy before being prescribed the low vision devices.

Changes brought out by the devices:

- They can currently see far and able to read from the board themselves.
- Improved quality of life, they can even know a person from far by using the given devices.

Challenges:

- In case of a breakage or any sort of malfunctioning of the telescope they have to resort to spectacles. This pose a great challenge to them since it is very hard to use the specs and again they become worried since they don't know where and when can they secure another piece of the device.

Suggestions:

- Screening should be done at the households because there are more kids with very low vision but they are hidden.
- Educating parents: Some children reported that some parents don't know the existence of such devices thus by educating them it can be easy for them to bring out their children.

6. Parents/Guardians of Children Accessing Technology

Unfortunately we were not able to meet the parents as the children accessing technology were from a boarding school. Instead we interviewed the patron and matron who are in charge of the daily living of these children at school. This is what we extracted from them:-

Knowledge/awareness of the project

- The patron and matron were not aware of the project. They were used to seeing different stakeholders and eye camps done in their school but could not tell which is which.

Eye problems experienced:

- They reported that children especially those with albinism had problems seeing far, reading from the black board to the extent that their fellow student had to read for them before they can write.

Examinations done:

- They were not aware of the type of investigations done.

Changes brought out by the devices:

- They can currently see far and able to read from the board themselves.
- Improved quality of life, they can even know a person from far by using the given devices.

Challenges:

- None reported

Suggestions:

- More outreach services should be provided in their school and on regular basis.

7. Children Using Spectacles

We had an FGD with two groups of children using spectacles. In one group, all of the children had no spectacles at the time of interview. Some reported to have lost them, some left them at home and others were denied from using them by their parents. However, we managed to obtain the following information:

Problems they had prior to be given specs:

- Inability to see well especially at far
- Tearing
- Headache

Time taken from examination to receiving spectacles

- The time ranged from one week in Mwanza region to up to six months in Mbeya region. The reasons for such delays were found to be related to the supply chain (project based).

Their views/ feelings after receiving specs:

- Some reported improved vision and they were happy about them.
- Majority reported to have found no difference in vision whether using or not using the spectacles.

Suggestions:

- Some of the children pointed out that screening should involve adults at household levels as they are more in need of eye care services and spectacles.

8. Reproductive and Child Health Workers (MCH workers)

Knowledge/awareness of the project

Almost all MCH workers interviewed were aware of the project. Majority of them reported to be informed by the DEC about the project through an invitation to attend a one day training on child eye health

Additional training received from this project

- Structure and parts of the eye
- How to screen new-borns for eye conditions
- Identify normal and abnormal eye by simple observation
- squints can be treated
- use of eye drops or ointments without prescription is not advisable
- signs and symptoms of different eye conditions such as allergy, trachoma
- provision of first aid services to an injured eye
- preparation of an eye and provision of referral for eye conditions which cannot be managed at our settings

Roles attributable to training:

MCH workers reported the following roles which were not able to perform prior to training:

- Screening of new-borns and provision of TCL ointment to them
- Screening and identification of eye problems in all children presented at RCH for other services.
- Provision of referral for children found to have eye conditions which could not be managed at that facility.

Was the training sufficient?

- Majority of the MCH workers reported that the training was not sufficient. Reasons being that the training had a lot of materials to be covered within a very **short time.**

Post training support

- Almost all of the MCH workers reported to have **never** received any form of supportive supervision or post training support from the moment they were trained.

Child protection

- Some of the MCH workers understood what child protection meant. Most of them didn't know what it means.
- **None** of them received a training on child protection during the child eye health training or anytime during the project. The few who reported to understand got that information from other sources not related to the project for instance some reported to have learnt from their ethics course at college.

Challenges experienced while performing their roles:

- Lack of equipment and eye drugs most of the times
- Socio-cultural beliefs among parents

- Lack of transport to facilitate for outreach services
- High work load due to large number of clients compared to trained MCH workers
- Lack of incentives/motivation to undertake given roles.

Lessons learnt:
- Squints can be corrected
- Some of the MCH workers acknowledged that eye problems were so much to be identified, through this training they were able to identify and treat a good number of under-fives attending RCH.

Suggestions:
- The use of mobile clinic for instant screening and treatment services.
- Train more HCWs
- Regular supportive monitoring visits to assess performance
- Refresher trainings should also be provided
- Strengthening of feedback mechanisms from referrals sent for treatment in other facilities.

9. Primary Health Care Workers (OPD staffs)

Knowledge/awareness of the project

Almost all PHC workers interviewed were aware of the project. Majority of them reported to be informed by the DEC about the project through an invitation to attend a one day training on child eye health.

Additional training received from this project
- Structure and parts of the eye
- How to screen new-borns for eye conditions
- Identify normal and abnormal eye by simple observation
- squints can be treated
- use of eye drops or ointments without prescription is not advisable
- signs and symptoms of different eye conditions such as allergy, trachoma
- provision of first aid services to an injured eye
- how to fill monthly reporting forms
- preparation of an eye and provision of referral for eye conditions which cannot be managed at our settings

Roles attributable to training:

PHC workers reported the following roles which were not able to perform prior to training:
- Identification and management of eye problems in all children and other clients presented at OPD for other either eye specific complaints or any other services.
- Attending referred children found to have eye conditions from their schools.
- Provision of referral services to higher health facility levels for conditions which could not be managed at our facility.

Was the training sufficient?
- Majority of the PHC workers reported that the training was not sufficient. Reasons being that the training had a lot of materials to be covered within a very **short time.**

Post training support

- Almost all of the PHC workers reported to have **never** received any form of supportive supervision or post training support from the moment they were trained.

Child protection

- Some of the PHC workers understood what child protection meant. Most of them didn't know what it means.
- **None** of them received a training on child protection during the child eye health training or anytime during the project. The few who reported to understand got that information from other sources not related to the project for instance some reported to have learnt from their ethics course at college.

Challenges experienced while performing their roles:

- Lack of equipment and eye drugs most of the times
- Socio-cultural beliefs among parents
- Lack of transport to facilitate for outreach services
- Lack of supervisions
- High work load due to large number of clients compared to available PHC workers
- Lack of incentives/motivation to undertake given roles

Lessons learnt:

- Squints can be corrected
- Some of the MCH workers acknowledged that eye problems were so much to be identified, through this training they were able to identify and treat a good number of under-fives attending RCH.

Suggestions:

- The use of mobile clinic for instant screening and treatment services.
- Train more HCWs
- Regular supportive monitoring visits to assess performance
- Refresher trainings should also be provided
- Strengthening of feedback mechanisms from referrals sent for treatment in other facilities.

10. Community Health Care Workers

Knowledge/awareness of the project

Almost all CHC workers interviewed were aware of the project. Majority of them reported to be informed by the DEC about the project through an invitation to attend a three day training on child eye health.

Additional training received from this project

- Structure and parts of the eye
- How to screen new-borns for eye conditions
- Identify normal and abnormal eye by simple observation and by using designated equipment
- Educating the community on eye care services

- squints can be treated
- use of eye drops or ointments without prescription is not advisable
- signs and symptoms of different eye conditions such as allergy, trachoma
- provision of first aid services to an injured eye
- preparation of an eye and provision of referral for eye conditions which cannot be managed at our settings

Roles attributable to training:

CHC workers reported the following roles which were not able to perform prior to training:

- Household screening of children with eye problems and refer them to a nearby health facility
- Provision of education on eye care issues during mass campaigns
- Sensitizing the community on the need and importance of caring for their eyes, health seeking behaviour and change their socio-cultural beliefs.
- Assist in eye care screening and dispensing of eye drops/ointments during outreach services.

Was the training sufficient?

- Majority of the CHC workers reported that the training was not sufficient. Reasons being that the training had a lot of materials to be covered within a very **short time.**

Post training support

- Some of the CHC workers reported to have received some form of supportive supervision from the DEC during outreach services.
- Majority reported not to have received any post training support from the moment they were trained.

Child protection

- Some of the CHC workers understood what child protection meant. Most of them didn't know what it means.
- **None** of them received a training on child protection during the child eye health training or anytime during the project. The few who reported to understand got that information from other sources not related to the project for instance some reported to have learnt from their colleagues and media.

Challenges experienced while performing their roles:

- Socio-cultural beliefs among parents
- Lack of transport to facilitate their movements as they cover huge geographical areas
- High work load due to large number of clients compared to trained MCH workers
- Lack of incentives/motivation to undertake their roles (They are not paid at all. So they thought that any form of incentive can highly motivate them!)

Lessons learnt:

- Squints can be corrected
- Some of the CHC workers acknowledged that eye problems were so much to be identified, through this training they were able to identify and refer a good number of children from their communities.

Suggestions:

- The use of mobile clinic for instant screening and treatment services.
- Train more CHC workers
- Provision of any means of transport such as a bicycle or motorcycle to assist them in accomplishing their roles.
- Provision of incentives. If possible they should be formally employed even directly under the project (contract based) if the government cannot absorb them.
- Regular supportive monitoring visits to assess performance
- Refresher trainings should also be provided
- Strengthening of feedback mechanisms from referrals sent for treatment in other facilities.
- Use of BCC materials such as flyers or posters to increase awareness as most of the community will be aware thus trust will be gained.

Conclusions and Recommendations

- All of the beneficiary groups have been positive about the project. It has touched their lives and of those close to them. The project has had an impact in their lives.
- The observed challenges did not jeopardise the project's intended mission. They can be rectified accordingly and be used to strengthen the project in the future.
- Since this was a school based project focusing on child, we would highly recommend that a **compliance study** be undertaken to assess the true compliance of the supplied interventions in particular the spectacles.

Key Learnings from the Beneficiary Groups

- There are many eye problems that need to be identified, and through this project children were identified and referred for treatment.
- The acquired knowledge on child eye care is a treasure which can be used in our lifetime.
- Squints can be treated
- Knowledge acquired from the project has helped family members such as grandparents and siblings with eye problems and they were treated
- The students' health clubs helped a lot in improving the school's surroundings and general cleanliness.
- The project has resulted in increased awareness among students especially on facial cleanliness.

Recommendations from the Beneficiary Groups

- The use of mobile clinic for instant screening and treatment services.
- Train more health care workers
- Train more teachers given the increasing number of children with special needs in such schools.
- Provision of incentives to teachers and health care workers
- Regular supportive monitoring visits to assess performance
- Refresher trainings should also be provided
- Eye care screening should also involve adults at household levels as they are more in need of eye care services and spectacles

- The use of local leaders can be the best gate-way to the community where children, parents and other caregivers live. Once the community becomes aware, it would have been much easier for the teachers to undertake their roles smoothly.
- Use of behavioural change communication materials such as flyers or posters to increase awareness in communities.
- Increase training time.

Appendix 8 – Map of Kenya

(Source: http://www.nationsonline.org/oneworld/map/kenya_map2.htm)

Appendix 9 – Map of Uganda

(Source: http://www.nationsonline.org/oneworld/map/uganda-map.htm)

Appendix 10 – Map of Tanzania

(Source: http://www.nationsonline.org/oneworld/map/tanzania-political-map.htm)