



Pakistan Urban Paediatric Eye Care Project (PUPEC) – End Term Project Evaluation (Project Number 75060)

FINAL EVALUATION REPORT 14 January 2016

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Acronyms

BHVI	Brien Holden Vision Institute
CBL	Childhood Blindness
СВО	Community Based Organisation
CCSR	Childhood Cataract Surgical Rate
COAVS	College of Ophthalmology and Allied Vision Sciences
CSTCs	Cluster Support Training Centres
DSD	Directorate of Staff Development
DSTCs	District Support Training Centres
DTEs	District Teacher Educators
FET	Faisalabad Eye Trust
FGDs	Focus Group Discussions
FHF	Fred Hollows Foundation
HFH	Holy Family Hospital
HR	Human Resources
IAPB	International Agency for the Prevention of Blindness
ICD	International Classification of Diseases
IEC	Information Education Communication
INGOs	International Non Governmental Organisations
KAP	Knowledge Attitude Practice
KMC	Karachi Metropolitan Corporation
LHWs	Lady Health Workers
LRBT	Layton Rahmatulla Benevolent Trust
MDGs	Millennium Development Goals
MT	Master Trainer
MTR	Mid Term Review
NCHD	National Commission for Human Development
NDWP	National Drinking Water Policy
NEP	National Education Policy
NGO	Non Governmental Organization
NSP	National Sanitation Policy
PCB	Prevention and Control of Blindness
PCO	Pakistan Country Office

PHSRP	Punjab Health Sector Reforms Programme
PST	Primary School Teacher
РТА	Parent Teacher Association
PUPEC	Pakistan Urban Paediatric Eye Care Project
SDGs	Sustainable Development Goals
SHP	School Health Programme
SiB	Seeing is Believing
SMC	School Management Committee/Council
SSIs	Semi Structured Interviews
TE/TT	Teacher Educator/Teacher Trainer
TORs	Terms of Reference
UNESCO	United Nations Educational, Social and Cultural Organization
UNICEF	United Nations Children's Emergency Fund
URE	Uncorrected Refractive Errors
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization

Acknowledgements

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We wish to acknowledge with deep appreciation the cooperation and support received from the implementing partners, namely, College of Ophthalmology and Allied Vision Sciences and teams from Rawalpindi, Multan and Faisalabad; Layton Rahmatullah Benevolent Trust; and Prevention and Control of Blindness Cell.

We are extremely grateful to the parents and their children, the head teachers and school teachers who shared freely of their time and made valuable suggestions regarding the programme.

To the Sightsavers Pakistan Country Office team, we express our grateful thanks for all your facilitation, insightful discussions and accompanying us throughout the evaluation.

We extend our gratitude to Sightsavers and Seeing is Believing for having accorded us this invaluable opportunity not only to undertake the evaluation, but to develop insight into a large scale initiative.

While every attempt was made to verify findings from observations, document reviews and interviews, any omission or commission is duly regretted.

Dr Haroon Awan Mr Niaz Ullah Khan

Map of Pakistan



Executive Summary

Description of Programme

Sightsavers Pakistan Country Office developed a five year project on child eye health that was planned for execution in slum areas of five urban cities (Karachi, Rawalpindi, Lahore, Multan and Faisalabad) in Pakistan. The project was entitled "Pakistan Urban Paediatric Eye Care" (PUPEC) to be undertaken between 2011-2015. The project was approved for funding under the 'Seeing is Believing' (SiB) programme, which is a collaboration between Standard Chartered Bank and the International Agency for Prevention of Blindness (IAPB). Sightsavers provided a 20% component funding in PUPEC.

The project aimed to:

- 1. Identify blind and low vision children within the five project cities
- 2. Provide the required eye care services (surgeries, spectacles, low vision devices) to children identified during school eye health activities
- 3. Increase eye health awareness in schools and adjacent communities
- 4. Strengthen eye health systems through human resource development
- 5. Establish effective programme management systems for efficient implementation of intervention

A Mid Term Review (MTR) was conducted in 2013 and the main project outputs were revised because the findings suggested that either the target was not achievable. The main reasons for revising the targets were due to two main factors:

- Due to large numbers of targets for screening and teachers training, the quality of both components was compromised and it was necessary to focus on refresher trainings and re-screening in selected schools
- The referrals and follow-up mechanism also needed further strengthening and this could be only possible by focusing on this element in teachers' refresher training

The revised targets included training of 18,000 school teachers in vision screening, 550 community awareness and screenings sessions, screening of 1.2 million children in the slum areas, 50,000 refractions and 50,000 spectacles and 500 low vision devices dispensed, 2,050 eye surgeries in children and 45,000 Information, Education and Communication (IEC) material distributed for child eye health promotion.

The programme was implemented through two government partners and one NGO partner.

End Term Evaluation Purpose and Objectives

The purpose of this End Term Project Evaluation was to explore key successes, challenges and lessons learnt to inform any childhood blindness control programme in future. Furthermore, the evaluation sought to verify the achievement of intended results and outputs described in the project proposal and in the logical framework, and measure the extent to which the PUPEC project has strengthened capacities of local implementing partners for combatting childhood blindness in Pakistan.

The MTR aimed to answer questions under each of Sightsavers seven key evaluation criteria of relevance, effectiveness, efficiency, impact, sustainability, scalability / replicability and coherence / coordination.

The scope included the entire time from the launch of the project in January 2011 to the end of the five year project in June 2015.

Methodology

A comprehensive document review of the project proposal, progress updates and key performance indicators was carried out and the methodology developed after consultation with Sightsavers Pakistan Country Office.

As part of the MTR, a 'schematic diagram of intervention' of the project was developed that helped us understand the various components and how they interacted with each other. The schematic was also referred to in this evaluation. A variety of data collection methods were utilised, which included interviews, focus group discussions and onsite observations. Separate instruments were developed for these. The detailed methodology was presented in an Inception Report, which after various inputs was approved by Sightsavers.

Summary of Main Findings/Conclusions

Relevance – To date, this is one of the largest school eye health screening projects carried out in urban areas of Pakistan. Various UN agencies like WHO, UNESCO, and UNICEF have also undertaken pilot initiatives in school health. However, while these projects have continued as pilot initiatives, no province is currently fully implementing a district-wise school screening programme. As there was no vision screening programme of school children, especially in government schools in the project areas, a large number of school children with refractive errors did not know they had a refractive error, while parents were not aware of the implications of vision impairment and where to go for services for eye care for their children. The project was highly relevant as it sought to address this unmet need of school children and parents as evidenced by about 47% of the overall estimated need of uncorrected refractive errors in slum children that was met by the project. The PUPEC project demonstrated a high level of synergy with the National Education Policy 2009, National Drinking Water Policy 2009, National Sanitation Policy 2006, and was well aligned with the MDG priorities of universal primary education, health and nutrition, and environmental sustainability. The project adapted and used the WHO EMR

Guidelines on School Eye Health (post-MTR) and therefore provided a regional perspective tested at national level. Additional high impact synergy could have been derived by the project by engaging with post-devolution changes at provincial level and with UN agencies to enhance integration and institutionalisation of vision screening in school health.

Effectiveness – The project's achievement of its service delivery targets was commendable as it exceeded almost all targets. The findings indicated that while the project attained a high level of achievement of project outputs, it lagged behind in outcome level achievements that could have been used as a leverage for engagement with the education sector. The project placed emphasis on vision screening of girls. While the project had a comprehensive monitoring and reporting system, there was no supporting quality assurance mechanism.

Efficiency – Every nine out of ten of all school children who required refraction (92.2%) and those who required spectacles (93.2%) were in classes II to X. In 2014-15, the project had a high false positive rate (35.3%) with a true positive rate of 64.7%, which is lower than expected and relates to the quality issue about vision screening. There was insufficient data to draw any conclusions about sensitivity and specificity.15.1% of all surgeries reported by the project were school children from participating schools or local communities. Of all cases identified for surgery among school children and those children in local communities, less than one-fifth (17.2%) turned up for surgery at participating hospitals. However, there was not enough data to determine whether children from project areas had been operated at the partner hospitals without being specifically referred by the screening teams.

Impact – An internal monitoring review on the use of spectacles dispensed by the project revealed that there was a positive outcome on class performance and child confidence especially when children with refractive errors used their spectacles. The project exceeded its target of screening 40% of children in slum areas, met 47% of the overall need of uncorrected refractive errors and contributed towards a reduction in childhood cataract surgical need in the project cities. The project also enhanced the institutional knowledge about community approaches. This was evident from partner participation in research, internalising community eye health in postgraduate training programmes, and incorporating control strategies for refractive errors in the Punjab provincial eye health plan. Higher level engagement at policy and planning level in school education and special education departments would have alerted the project partners to concurrent implementation of an inclusive education project by the government of Punjab, and therefore could have been used as an opportunity for large scale integration.

Sustainability – The PUPEC project had all the hallmarks of a campaign mode initiative – large numbers and high visibility in five leading urban areas of the country, to raise the profile of refractive errors in children, and build momentum for a change in practice (in this case vision screening and eye health integral to school health). The project implementation did not emphasise a comprehensive sustainability scenario. Several components of the project had a high likelihood of sustainability or continuity. These include over 26,000 teachers trained in vision screening, which represents a large workforce; LRBT has indicated that it will continue with school screening in areas adjacent to its hospitals, but not at the same scale as the PUPEC

project; about 20% of spectacle breakages were replaced by the parents; surgical costs will continue to be borne by the participating partner hospitals; and an optical outlet has been established at LRBT Korangi as a private enterprise.

Scalability/Replicability – The project generated large scale evidence for urban level refractive errors in school children. Over 1.5 million children were screened and the project established that four out of every hundred children are in need of spectacles. However, despite other INGOs also supporting similar school screening initiatives, there had been no organisational learning meeting on school screening for refractive errors nor any national document developed by the National Eye Health Committee for this purpose. Further, cross-sectoral learning with other school health initiatives was also a missed opportunity to learn and engage with the corporate sector, where Standard Chartered could have played a catalyst role.

Coordination/Coherence – There was an impressive level of coordination and collaboration at operational level that led to achievement of targets, massive school screening, nomination of teachers, setting aside time for screening, refresher training, and follow-up. However, while the operational level coordination and collaboration was adequate for achieving project activities, higher level coordination and collaboration was required for institutional change. The project may have benefitted further from interacting with respective metropolitan and municipal corporations responsible to manage a sizeable number of schools and develop future plans of the city.

G	RELEVANCE
GA	EFFECTIVENESS
GA	EFFICIENCY
GA	IMPACT
GA	SUSTAINABILITY
A	SCALABILITY/REPLICABILITY
GA	COORDINATION/COHERENCE

Overall Ratings for Review Criteria

Learnings

Some of the key learnings from the project include the following:

- It is vital to be aware of other developments taking place in the related sectors so that timely engagement can be initiated with relevant stakeholders and actors for strategic integration.
- The effectiveness of the project could be improved by placing dedicated resource persons for Monitoring, Evaluation, Analysis and Learning; and Communications to support advocacy and IEC.
- Parents of school children in poor slum areas are usually daily wage earners or casual labourers and can't participate in school activities due to the risk of losing the casual job placement and income. Such parents may not be able to meet the repeated cost of replacement spectacles e.g. after breakages.
- Large scale projects like PUPEC should be seen as springboards to influence change at policy and planning level, supported by a well conceived and executed advocacy and communications strategy and action plan.
- Sustainability should not be assumed to be a by-product that comes about by default in a large scale project, but rather a roadmap for sustainability should be defined at the outset.

Recommendations

Project Management

- 1. Undertake mapping of institutional arrangements and actors to develop linkages and potential synergies at the outset and pursue these during the project.
- 2. Conduct a stakeholder analysis at the inception of the project to inform concurrent advocacy and communication requirements and coordination arrangements.
- 3. Conduct a baseline at the inception of the project to determine the referral pathway, willingness to pay and whether any local capacities in nearby health facilities or services need to be strengthened.
- 4. Develop a critical pathway along with necessary capacities to implement and monitor quality assurance mechanisms like use of a Global Positioning System (GPS) derived database (e.g. use of tablets) during screenings at the school cluster level to improve monitoring and strengthen the referral pathway.

Partnerships and Advocacy

- 1. Seek integration of school eye health through the education route by linking up with the inclusive education programme in Punjab.
- 2. Use the Education Sector Plans as entry portals for school health.
- 3. Organise consultation meetings under the leadership of the education department for integration of school eye health in the school curriculum.
- 4. Develop consensus on and produce school eye health guidelines by documenting best practices and learning under the auspices of the National Eye Health Committee

Introduction

Sightsavers Pakistan Country Office developed a five year project on child eye health that was planned for execution in slum areas of five urban cities (Karachi, Rawalpindi, Lahore, Multan and Faisalabad) in Pakistan. The project was entitled "Pakistan Urban Paediatric Eye Care" (PUPEC) to be undertaken between 2011-2015. The project was approved for funding under the 'Seeing is Believing' (SiB) programme, which is a collaboration between Standard Chartered Bank and the International Agency for Prevention of Blindness (IAPB). Sightsavers provided a 20% component share in PUPEC.

The project aimed to:

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They included training of 18,000 school teachers in vision screening, 550 community awareness and screenings sessions, screening of 1.2 million children in the slum areas, 50,000 refractions and 50,000 spectacles and 500 low vision devices dispensed, 2,050 eye surgeries in children and 45,000 IEC material distributed for child eye health promotion.

The programme was implemented through two government partners (College of Ophthalmology and Allied Vision Sciences (COAVS); and Prevention and Control of Blindness Cell (PCB Cell); and one NGO partner, Layton Rahmatulla Benevolent Trust (LRBT).

The purpose of this End Term Project Evaluation was to explore key successes, challenges and lessons learnt to inform any childhood blindness programme in future. Furthermore, the evaluation sought to verify the achievement of intended results and outputs described in the project proposal and in the logical framework,

and measure the extent to which the PUPEC project has strengthened capacities of local implementing partners for combatting childhood blindness in Pakistan.

The evaluation also assessed the project achievements against agreed targets.

Methodology

At the outset, the Evaluation Team met with the Sightsavers Pakistan Country Office team to develop a better understanding of the assignment, develop a list of key stakeholders involved in the project, develop a plan for site visits and interviews/FGDs with key stakeholders, and seek support for introduction to key stakeholders for qualitative data collection. This also involved development of an Inception Report, whose draft was reviewed by Sightsavers and then subsequently approved after certain revisions.

The sampling frame for the Evaluation was pre-defined by Sightsavers in the terms of reference to include four cities, four paediatric ophthalmology units, and ten schools (eight government and two private) keeping in view the mandatory sample size and representation, possibilities for travel and logistics, time limitations etc. In order to enhance coverage, teachers and a sample of school children from nearby participating schools were invited to come to the school being visited so that a larger sample could be interviewed. In the time available for the Evaluation, the Evaluators endeavoured to interview a purposive sample of stakeholders including the partners and their paediatric ophthalmology teams, screening teams, a selection of teachers trained and available on the day of the visit of the team, students provided spectacles, local government officials etc. The Evaluation did not involve a community survey; therefore, no household sampling was required.

The Evaluators reviewed available literature and data on the project and MTR, and noted points of interest relevant to the assignment. The Evaluators made a list of potential additional information that could be obtained through interviews and endeavoured to obtain these. The Evaluators ascertained how the recommendations of the MTR had been implemented both in the quantitative and qualitative phases. The original schematic developed in the MTR was used for reference (Appendix 1)

The main data sources included project beneficiaries (teachers, school children, community representatives, LHWs), project deliverers (implementing partners), persons with knowledge of project recipients (local authorities and duty bearers), project documents, project records, databases, secondary literature etc. The primary data from the communities was collected through Focus Group Discussions (FGD) at the schools visited. For head of partner organisations and duty bearers, Semi Structured Interviews (SSIs) were used. The data was analysed on the basis of emerging trends from the discussions of FGDs and SSIs as well as field observations made by the Evaluation Team. This was triangulated with project reports, documents and other secondary sources available. Data sources, collection methods and key informant questions for the Evaluation are shown in the Evaluation Matrix and questions for key informants (Appendix 2 and 3), while the list of key persons met is shown in Appendix 4. All data obtained was analysed and a synthesis performed to determine trends/themes with triangulation relating to feedback on various sections.

A joint stakeholder consultation meeting was held with programme staff and key staff of screening teams like optometrists and social organisers from the implementing partners at the end of the field visits to validate key programmatic findings and ensuing recommendations.

The Evaluators also met with two international non-governmental organisations (INGOs), Brien Holden Vision Institute (BHVI) and Fred Hollows Foundation (FHF), to obtain further insights as they are also supporting similar projects.

At the end, the Evaluators conducted a de-briefing/validation meeting with the Sightsavers Pakistan Country Office to present preliminary findings and conclusions and receive comments and viewpoints to be considered in the further formulation of the Evaluation report.

The work plan and schedule for field visits for the Evaluation are shown in **Appendix 5** and **6**.

The structure of the report follows the guidelines provided by Sightsavers and is based on the scope levels presented in the TORs, i.e. Relevance, Effectiveness, Efficiency, Impact, Sustainability, Scalability / Replicability, Coherence / Coordination, Conclusions and Recommendations.

Limitations

- The sample of schools visited (11 cluster schools plus sample of teachers and students from 13 nearby participating schools) was less than 1% of the total schools (4,291) that have participated in the project, and therefore is not a true representative sample of the project. The findings from the 24 schools may be subject to bias. We tried to address this by triangulating findings from onsite visits with FGDs and project data, reports and any studies.
- 2. Similarly, the sample of 103 teachers that were interviewed was less than 1% of the total number trained in the project (26,163), and therefore is not a true representative sample of the project. The findings from the handful of teachers may also be subject to bias. We tried to address this by triangulating findings from onsite visits with FGDs and project data, reports and any studies. In addition, separate FGDs were held in which 335 students and 40 parents also participated.
- 3. In the absence of a baseline for this project, attribution to and interpretation of project impact would be challenging. We attempted to address this by using the MTR as a proxy baseline.

Relevance

Relevance to beneficiary needs and national priorities

Our desk review revealed that there was only one study/project that screened over 1 million school children aged 10-16 years between 1992-99¹ in urban areas of Islamabad and Rawalpindi. It found a prevalence of refractive errors of about 4.27% with short-sightedness being three times as frequent as long-sightedness. To date, the PUPEC project is one of the largest school eye health screening projects carried out in urban areas of Pakistan. Furthermore, the project findings are consistent with this earlier study and highlight the importance of refractive errors as a public health issue in school children.

In the project areas, there was no vision screening programme of school children, especially in government schools, that focusses on institutionalisation of vision screening through capacity development of teachers. Therefore, a large number of school children with refractive errors did not know they had a refractive error and were studying without any spectacle correction. Similarly, parents were not aware of the implications of vision impairment and where to go for services for eye care for their children. The project was highly relevant as it sought to address this unmet need of school children and parents.

The School Health Programme (SHP) had been envisaged in the Joint UN Programme on Health and Population (2008-09) that required collaborative work between education and health sectors. Although a number of UN agencies i.e. WHO, UNESCO and UNICEF have been supporting different components of the School Health Programme, a holistic approach, however, has been lacking. UNESCO focussed on development of school health learning material and produced guidelines for a school health programme². However, it was interesting to learn³ that as part of Sightsavers interaction, mutual learning and collaboration, the One UN School Programme and National Commission for Human Development (NCHD) adopted the E-Card of vision screening (developed by Sightsavers) for all of their eye health screening interventions.

In June 2005, NCHD launched a School Health Programme in 17 districts of Pakistan with funding from the Bill and Melinda Gates Foundation. These students were screened bi-annually for health problems and were referred for corrective actions to the established referral outlets⁴. When NCHD operations were scaled down in 2010, this programme ended without any institutionalisation of school health.

¹ Tayyab Afghani, Haroon Ali Vine, Akmal Bhatti, Mohsin Shahzad Qadir, Javed Akhtar, Muhammad Tehzib. Al-Shifa-Al-Noor (ASAN) refractive error study of one million school children. Pak J Ophthalmol Oct 2003;19(4):101-7

² School Health Programme: A Strategic Approach for Improving Health and Education in Pakistan. Ministry of Education, Curriculum Wing Government of Pakistan, Islamabad in collaboration with United Nations Educational, Scientific and Cultural Organization (UNESCO). February, 2010

³ Communication by Sightsavers Pakistan Country Office

⁴ For example, out of 1.86 Million students screened during 2006-07, 3.31 % had weak eyesight, 1.31% had eye disease, 1.04% had weak hearing, 1.2% had ear diseases, 5.02% suffered from dental problems and 2.94% students suffered from skin problems.

In 2007, the Punjab Health Sector Reforms Programme (PHSRP) perceived the need of a Health and Nutrition Programme for school children studying in rural areas. The School Health Programme was therefore designed and launched to improve health, nutrition, and learning performance of students, to increase school enrolment, attendance, and to introduce better hygiene practices in the community. At each rural Basic Health Unit, a School Health and Nutrition Supervisor has been deployed to support nearby schools for health screening. Interestingly, this programme also could not be integrated in the last eight years due to lack of ownership and effective collaboration with department of education.

Both these programmes were instrumental in influencing the National Education Policy 2009 and even the provincial education sector plans to incorporate school health. However, the programmes were not able to institutionalise the capacity mechanisms within the education departments required for large scale roll out of school health.

The PUPEC project demonstrated that it has the basis for alignment with the National Education Policy 2009⁵ (NEP 2009), National Drinking Water Policy 2009⁶ (NDWP 2009) and National Sanitation Policy 2006⁷ (NSP 2006).

Two key policy actions in the NEP 2009 relate to school health. These include:

- Policy Action 9 Emerging trends and concepts such as School Health, Prevention Education against HIV/AIDS and other infectious diseases, Life Skills Based Education, Environmental Education, Population and Development Education, Human Rights Education, School Safety and Disaster and Risk Management, Peace Education and inter-faith harmony, detection and prevention of child abuse, etc. shall be infused in the curricula and awareness and training materials shall be developed for students and teachers in this context, keeping in view cultural values and sensitivities
- Policy Action 10 School Health Education and School Safety shall be infused within the curricula and learning materials with focus on improving school environment, enriching health education content, instituting regular mechanism for health screening and health services of students and nutritional support to needy children in coordination with Departments of Health, Environment and Population at the Federal, Provincial and District levels

The policy actions highlight the areas that the education department considers important in the context of school health. They also provide strategic integration and entry points for collaboration, enhance synergies to drive implementation, and improve the process of institutionalisation of school health.

 $^{^{\}rm 5}$ National Education Policy 2009. Ministry of Education, Government of Pakistan

⁶ National Drinking Water Policy 2009. Ministry of Environment, Government of Pakistan

⁷ National Sanitation Policy 2006. Ministry of Environment, Government of Pakistan

The NDWP 2009 envisages provision of access to safe and sustainable water supply to the entire population of Pakistan. Similarly, the NSP 2006 aims to provide adequate sanitation coverage for improving the quality of life of people of Pakistan, and to provide the physical environment necessary for a healthy life. Both these Policies support the provision of water and sanitation facilities to all, including in schools and emphasise improved hygiene behaviours. Water and sanitation facilities contribute towards improving the school health environment, which is an important component of the school health programme.

Relevance and alignment with global development goals

The project was well aligned with the following MDG priorities:

- Universal Primary Education in urban and peri-urban areas especially in poor areas, health may not always be a priority. The project improved school attendance and participation (discussed in another chapter) and thereby had an impact on reducing school drop-out
- Health and Nutrition is a priority of the Government of Pakistan the project aimed to reduce morbidity due to refractive errors and other eye problems and is consistent with policy actions in the National Health Policy (draft) 2009
- Environmental Sustainability the project introduced hand washing and hygiene in school children as part of IEC and attempted to improve hygiene behaviour (however, there was no measurable indicator for this)

The project adapted and used the WHO EMR Guidelines on School Eye Health⁸ (post-MTR) and therefore provided a regional perspective tested at national level. The National Blindness Survey found that refractive errors were the commonest cause of visual impairment (43%) among the moderately visually impaired (visual acuity <6/18 - \geq 6/60)⁹. Further, the National Eye Health Plan 2005-2010 prioritised child eye health, refractive errors and low vision as components of the plan¹⁰. The project contributed towards strengthening of these components.

Alignment with international non-governmental organisations and private sector

One of the major outcomes of the project was the enhanced learning by partners of large scale outreach programmes, which not only developed an evidence base for refractive errors but also strengthened capacities amongst partners to be able to undertake screening programmes at such a scale.

⁸ Guidelines for School Eye Health for the Eastern Mediterranean Region (EMR) 2009. Eastern Mediterranean Regional office of the International Agency for the Prevention of Blindness (EMR-IAPB), in collaboration with World Health Organization regional office for the Eastern Mediterranean Regional Office(WHO-EMRO) and the Prevention of Blindness Union (PBU). Supported by IMPACT-EMR.

⁹ Brendan Dineen, Rupert Richard Bourne, Zahid Jadoon, Shaheen Pravin Shah, Mohammad A Khan, Allen Foster, Clare E Gilbert and Mohammad D Khan. Causes of blindness and visual impairment in Pakistan. The Pakistan National Blindness and Visual Impairment Survey. Br. J. Ophthalmol. published online 17 Jan 2007; doi:10.1136/bjo.2006.108035

¹⁰ A.A. Khan, N.U. Khan, K.M. Bile and H. Awan. Creating synergies for health systems strengthening through partnerships in Pakistan – a case study of the national eye health programme. EMHJ Vol. 16 Supplement 2010

The project demonstrated both continuity in programme development and complementarity with other INGO initiatives, which helped to avoid duplication. These included the following:

- Continuity from the Sightsavers childhood blindness and refractive errors project supported by Four Acre Trust 2008-2010 – this project was carried out in four districts and involved school screening, provision of spectacles, cataract surgery in children and training of teachers in basic vision screening and eye health. The learning from this project was utilised in development of the PUPEC project
- Complementarity and synergies with initiatives of other INGOs:
 - The Fred Hollows Foundation (FHF) developed the paediatric ophthalmology units in Faisalabad, Multan and Rawalpindi (at participating tertiary hospitals of PUPEC)
 - Sightsavers strengthened the paediatric ophthalmology unit at LRBT hospital in Karachi (a participating tertiary hospital of PUPEC)
 - Orbis supported the capacity development of the paediatric ophthalmology unit at Civil hospital in Karachi (a participating tertiary hospital of PUPEC)
 - Sightsavers and FHF contributed to the development of the paediatric ophthalmology unit at COAVS (a participating tertiary hospital of PUPEC)

The project involved the private sector (opticians) in the dispensing of spectacles. However, the engagement and multiplier effect that could have been derived from different private sector organisations like Unilever school hygiene programme, Proctor and Gamble safe school programme, Reckitt and Benckiser hope programme etc. were not pursued.

And last but not least, the project was aligned with and met the criteria enunciated in the key principles of the Sightsavers policy on refractive errors services.

During the project life, there were two key developments that took place at policy and strategy level:

- The 18th Constitutional Amendment on devolution was passed in 2010 which devolved social sector services to the provinces. These included health and education sectors. Each province subsequently developed their health and education sector strategies. We did not find evidence of the project partners or Sightsavers having engaged with provincial departments to derive synergy with these developments or find potential inroads for long-term sustainability
- The UN agencies (WHO, UNESCO, UNICEF) were involved with various aspects of school health and had great potential to influence provincial governments. However, we did not observe any process that had been initiated by the project partners or Sightsavers to engage with these agencies and build synergies for policy or strategy change at provincial level

Effectiveness

Partnership arrangements

The high level of achievement of the project outputs was largely due to partnership capacities and effective coordination arrangements of the project. These included periodic and regular follow-up by Sightsavers Country Office, onsite visits and quarterly review meetings with partner heads.

On interview of the partners, it was evident that all partners had been consulted in the identification of project locations, formulation of project objectives, targets and outcomes. However, it was interesting to learn that this consultation had in fact been done individually with each partner and no collective consultation meeting had taken place when designing the project. The implication of this was apparent during the stakeholder consultation meeting held by the Evaluators in which there were differences in understanding of project implementation by the different partner project teams. Project partners operated in silos and did not benefit from collective thinking around advocacy outcomes e.g. integration of school screening in the education curriculum, engagement with the private sector for school health etc.

During the project period, Sightsavers Country Office maintained close liaison with the Standard Chartered team, especially the Corporate Social Responsibility team. Several meetings were held with bank officials and senior staff from Standard Chartered also visited the Country Office. One of the highlights of this engagement was the impressive level of volunteerism by bank staff. These are highlighted below in Table 1.

Year	Activity
2012	 9 volunteer activities in which 100 staff were oriented and trained in vision screening 2 screening sessions for bank staff and their families in which 275 staff benefitted 11 volunteer activities in which 202 staff screened 2,173 school children
2013	 2 volunteer activities in which 37 staff screened 835 students 4 volunteer activities in which 150 staff screened 1,100 school children 1 fund raising activity conducted in which 305 staff participated
2014	 5 volunteer activities conducted in which 319 staff participated and 348 people and their families were screened
2015	 3 volunteer activities in which 43 staff screened 1,100 school children

Table 1 - Volunteer activities of Standard Chartered staf	Table 1	l -	Volunteer	activities	of	Standard	Chartered	staff
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This helped to enhance the relations between Standard Chartered and Sightsavers.

MTR recommendations

The project's achievement of its service delivery targets was commendable as it exceeded almost all targets. The high project achievement is also commendable as this was the first time these partners had undertaken such a large scale project. **Table 2** indicates that the achievements exceeded 100% in all components except dispensing of low vision devices. This point was noted during the MTR which recommended a drastic reduction in the project target from 5,000 to 500 as the proportion of school children requiring low vision devices was very small, and this was validated by the project.

Indicators	Initial Target	Revised Target (MTR)	Total Achieved	% Achievement
Training of Teachers	15,000	18,000	26,163	145 %
Screening / Re- screening	1,700,000	1,475,000	1,519,653	103%
Refractions	50,000	45,652	70,432	154%
Spectacles	50,000	42,880	56,663	132%
Surgeries	2,000	2,050	2,426	118%
Community Sessions	500	550	647	118%
Low Vision Devices	5,000	500	422	77%

Table 2 - Status of project achievements

(Source: Sightsavers Pakistan Country Office)

The MTR made some key recommendations, which were implemented by Sightsavers and partners to a varying extent. The status of MTR recommendations are shown in **Appendix 7**.

The project proposal had envisaged two outcomes that were dependent on an effective advocacy component. These included:

- Incorporation of vision screening/eye health in the education management information system – this outcome was not achieved as the memoranda of understanding were developed at operational level and not at policy, planning and strategy level; further, partner engagement with related departments of education was minimal or non-existent
- Integration of eye health in school health initiatives progress in this area was also negligible and has been discussed under 'Relevance' in connection with UN agencies. A synthesis of existing school health programmes and government priorities was not conducted during the implementation phase to learn what were the key success factors that would have been helpful in the integration of vision screening as part of a school health initiative. Furthermore, there was no supporting advocacy plan e.g. meetings with the education department at strategic level; participation of education planners and policy makers in project consultations/reviews etc.

The Evaluators found that while the project attained a high level of achievement of project outputs, it lagged behind in outcome level achievements (vision screening indicators in the education management information system, government budget for

school health, etc) that could have been used as a leverage for engagement with the education sector e.g. inclusion of vision screening as mandatory at school entry and at class promotion, and integration of vision screening and eye health in the inservice teachers training programme.

Gender equity and demand generation

On analysis of the outputs, especially post-MTR in 2014-15, several points of interest are noted with regards to the achievement of project targets (Appendix 7). These include the following:

- More than half (57.9%) of all children screened were girls this is partly explained by the fact that there were more girls schools that participated in the project
- About two-thirds (64.4%) of all children who were dispensed spectacles were girls – this is partly explained by the fact that there were more girls that were screened in the project
- The surgical ratio for cataract and other surgeries was about equal for boys and girls identified and operated from the project – this is due to the fact that most children with cataract were identified in the local communities and not at schools, and therefore this target was not affected by the predominance of girls screened in schools
- There was a slight female preponderance over boys in children who were referred to hospital (55.3%) and those who reported at the hospital (55.0%) – this is partly explained by the fact that there were more girls that were screened in the project
- Overall, only about half (51.8%) of all children referred to participating hospitals reported for check-up and further treatment – two main reasons noted in FGDs were long distances to referral hospitals and long waiting times especially at government hospitals (this is discussed further under Efficiency). Further, it was not apparent from the data available whether the parents took their children to other hospitals in the respective cities
- Over three-fourths (76.7%) of teachers who were trained in vision screening and about two-thirds (64.1%) of teachers who received refresher training were women

 this is partly explained by the fact that there were more numbers of girls schools that participated in the project (it is government policy to deploy female teachers in girls schools)
- Over two-thirds (68.1%) of people who attended community awareness sessions were women – while the Social organisers who mobilised people to attend the community awareness session emphasised participation of both men and women, there was a preponderance of women partly because the men were at work as they are mostly daily wage earners. However, the FGDs indicated that a large proportion of women are also daily wage earners. There was not enough data to determine the occupation of women who attended these sessions

These findings suggest that the project implementation placed greater emphasis on girls. The gender strategy adopted by the programme team included the following:

- During discussions with education authorities, they were requested to prioritise girls schools – this also resulted in more female teachers being trained by default
- The social organisers who arranged community awareness sessions emphasised information about the sessions to mothers but also informed fathers. Interestingly, more women attended these sessions despite many already being involved in daily labour. However, there was no data on the occupation of women who participated at these sessions. One of the main reasons for fewer men who turned up for the sessions was that they were involved in casual work and did not want to risk losing the day's wages or job placement

During the FGDs, the parents, teachers and students indicated that there were no gender inequities in terms of preference for treatment.

There were two areas that performed less satisfactorily compared to the other components.

While community awareness sessions exceeded targets, in none of the FGDs with parents did they indicate that they had heard about the project or received any information about it from any source. Furthermore, the Evaluators found presence of learning material but did not witness any posters in any of the schools visited or neighbouring localities. The strategy for community awareness could have benefitted greatly if IEC material of the project was disseminated through the students and local non governmental organisations. Further, engagement of communities could have been done more systematically through local social networks (e.g. family planning workers, private sector marketing staff, local civil society organisations, media/cable networks etc) working at the primary level.

Awareness raising was reactive and advocacy was adhoc as has been alluded to earlier. While the project did provide quantitative information about the numbers of community awareness sessions held, there was no meaningful measure to determine the level of awareness or the change in perceptions, behaviour and practices.

One of the gaps that was also noted in the MTR was the absence of a baseline even though the proposal document had indicated the need for one. Some of the indicators could have been refined to measure outcome level changes e.g. pre- and post- intervention Knowledge, Attitude and Practice (KAP) studies could have provided a useful measure of the use of IEC, while hand washing could have been used as a proxy measure of community awareness.

The project developed a very useful and comprehensive monitoring and reporting system, which was further refined after the MTR. However, there was no supporting quality assurance mechanism nor any process to capture learning from the monitoring and reporting system. For example, other than the MTR, the Evaluators did not find any internal document that contained learning and good practices from the project and how these were shared with project partners to improve effectiveness. However, Sightsavers has conducted an internal monitoring review whose report is in draft stage. The latter is a good example of project learning, which one would expect a Monitoring, Evaluation, Analysis and Learning (MEAL) officer to

do. Other actions that a MEAL officer could have done include analysing the reasons and barriers for low uptake of referrals and follow-up, monitoring quality assurance mechanisms, undertaking pre- and post- KAP studies, enhancing the capacities of partners to streamline reporting and analysis processes etc.

The Evaluators found that while the project partners focussed on targets, there was insufficient emphasis on quality. Four critical areas where the use of a quality assurance mechanism would have been useful include the following:

- Vision screening by teachers requires periodic refresher training to correctly identify children with vision or any other eye problems – a high false positive rate was noted (this is discussed further under 'Efficiency')
- Community awareness and dissemination of key messages through students (with a follow-up by class teachers or a community survey to ascertain what proportion of students conveyed these messages to their parents and family members) – there was a missed opportunity to utilise school children as agents of change and develop a measure for community awareness
- Review and refraction by the screening team in the FGDs, about a third of students said that they were not satisfied with the spectacles they received and had to go to a private optician to get a new pair of spectacles which were more comfortable. The Evaluators learnt from the project teams that they mostly provided spherical prescriptions, which likely missed astigmatic corrections. There was generally no pre- and post-cycloplegic refraction, which may also have led to complains of eye strain and headache after use of spectacles
- Quality and range of spectacle frames in one project location, the Evaluators noted in the FGDs that about a third of students complained of easy breakage of spectacles provided by the project; while in another instance, the partner changed the vendor when they found poor quality spectacles being dispensed

Efficiency

The project contributed to strengthening of the health system for child eye health services in several ways. Firstly, it strengthened the referral system by building the skills of teachers to screen and refer children with eye and vision problems and thereby established a link between schools and services. Secondly, it informed the teachers about the availability of services, for which they can continue to refer even after the end of the project. Thirdly, the project utilised existing infrastructure in the form of schools for screening, paediatric ophthalmology units at tertiary hospitals for referrals and surgery, existing human resources at schools (teachers) and paediatric ophthalmologists and optometrists at the tertiary hospitals. Fourthly, the low vision services located at partner hospitals were supported as part of Sightsavers assistance to the national low vision programme, which covered low vision devices and technical capacities.

Screening

The screening teams were funded by the project and their utilisation after the project is discussed under 'Sustainability'.

One of the main differences between the Four Acre school screening project is that it utilised a separate screening team even for the initial vision screening, whereas the PUPEC project developed teacher capacities both for identifying vision and other eye problems, initial screening and primary eye care, and provided them with resource material. This approach was more efficient in reaching high numbers of school children and retention of vision screening skill by teachers. Screening is likely to be continued (as inferred from the FGDs with teachers), compared to the Four Acre Trust project in which screening did not continue once the project ended.

One of the main challenges faced in the screening process was the insistence by head teachers and school teachers that children in all classes should be screened. This resulted in more time being spent on screening, even though most of the refractive errors are known to occur in the 10-15 years age group. This also meant that the EMR guidelines on school screening for refractive errors could not be adapted fully in this context as the head teachers and school teachers were fearful of parents criticising them for practising discrimination if they screened selected children and omitted others. This has implications for resource allocation and future projects on school screening would need to be mindful of this.

On analysis of screening data (Table 4 and Appendix 8), there were several points of interest:

- Over three-fourths (77%) of all school children screened were in classes II to X (age range from 7 – 11 years); children screened in communities accounted for about 15.5% of all children screened
- Over four-fifths (81.5%) of all school children screened by teachers as having any eye problem were in classes II to X

- Two-thirds (66%) of all school children with common eye problems were in classes II to X
- Every nine out of ten (92.2%) of all school children who required refraction were in classes II to X
- Every nine out of ten (93.2%) of all school children who required spectacles were in classes II to X
- About one-third (35.3%) of all school children screened by teachers as having a vision problem were found to be false positive¹¹

Activity	Number of children	Percentage from school children screened	Percentage from all children screened (Schools and communities)
Total children screened (Class I)	85,569	23.0	19.4
Total children screened (classes II to X)	286,881	77.0	65.1
Total children screened in communities	68,113		15.5
Children Identified by Teachers in schools (Class I)	4,812	18.5	13.5
Children Identified in Schools (classes II to X)	21,182	81.5	59.4
Children Identified in communities	9,659		27.1
Children with common eye problems in Schools (Class I)	1,465	34.0	23.0
Children with common eye problems in Schools/CS (classes II to X)	2,846	66.0	44.6
Children with common eye problems in communities	2,067		32.4
Number of Refractions Performed in schools (Class I)	1,211	7.8	5.7
Number of Refractions Performed in Schools/CS (classes II to X)	14,328	92.2	67.3
Number of Refractions Performed in communities	5,745		27.0
Spectacles Dispensed for Children in schools (Class-I)	945	6.8	5.0
Spectacles Dispensed for Children in Schools/ CS (classes II to X	12,987	93.2	69.0
Spectacles Dispensed for Children in Communities	4,895		26.0
Number of false positives	9,184	35.3	
(Source: Sightsavers Pakistan Country Office)			

Table 3 - Analysis of disaggregated data 2014-15

¹¹ This means that if 100 children were indicated to have a vision problem through the screening by teachers, the refraction team found that 65 children were true positives (they had a vision problem) and 35 were false positives (they did not have a vision problem).

These findings validate the prioritisation of higher classes for screening. However, it was not possible to obtain disaggregated data for classes IV and V, which would have provided useful analysis relating to the efficiency of the screening tool.

While screening children in classes I, IV and V may be 'programmatically' correct, it may not be appropriate 'operationally' as alluded to earlier in this chapter regarding fears of teachers about discrimination. Furthermore, this may be an area that requires further advocacy at policy and planning level.

In 2014-15, the project had a high false positive rate (35.3%) with a true positive rate of 64.7%, which is lower than expected and relates to the quality issue about vision screening raised earlier in the 'Effectiveness' chapter. There was insufficient data to draw any conclusions about sensitivity and specificity¹².

Low Vision

One of the project components was treatment for low vision. It was noted in the MTR that there were very few school children identified with low vision and therefore a recommendation was made to reduce the target from 5,000 to 500. This is a definitional and programmatic issue.

The ICD-9 CM classification defines 'Low Vision' as visual acuity less than 6/18 to better than 1/60 (categories 1, 2 and 3), while ICD-10 classifies it as visual acuity of less than 6/18 to better than 3/60 (categories 1 and 2)¹³.

WHO classifies 'Low Vision' as visual acuity of less than 6/18 to better than 3/60 (categories 1 and 2). Furthermore, the WHO functional definition¹⁴ of 'Low Vision' states that "A person with low vision is one who has impairment of visual functioning even after treatment and/or standard refractive correction, and has a visual acuity of less than 6/18 to light perception, or a visual field of less than 10 degrees from the point of fixation, but who uses, or is potentially able to use, vision for planning and/or execution of a task".

If one uses the ICD-10 classification, then potentially all children identified with vision of less than 6/18 would be classified as low vision. It was not clear to the Evaluators what criteria was being used by the screening teams for low vision.

Since the magnitude of 'true' low vision (those requiring low vision services) in school children is so small, it would make more sense to omit it as a screening

¹² In 2014-15 according to statistics provided by Sightsavers, 25,994 children (total positives) were identified by teachers after vision screening for review by screening teams. Of these, 9,184 were reported as false positives. The false positives account for 35.3% (9,184/25,994). While there was data relating to total positive cases identified by teachers, and true positives identified by the screening teams, there was no data regarding true negatives and false negatives, and therefore sensitivity and specificity could not be calculated.

¹³ August Colenbrander. Visual Standards. Aspects and ranges of vision loss with emphasis on population surveys. Report prepared for the International Council of Ophthalmology at the 29th International Congress of Ophthalmology Sydney, Australia, April 2002

¹⁴ The Management of Low Vision in Childhood. Proceedings of WHO/PBL Consultation, Bangkok, July 1992. WHO, Geneva, 1993

programme component, but be aware of it and refer any child who might meet that criteria to the nearest low vision service.

Based on the recommendations of the MTR, refresher training of teachers was conducted for vision screening and eye health. Of a total of 26,163 teachers trained in the project, 3,256 received refresher training, constituting about 14.2% of all teachers who received a one-time training (22,907).

On analysis of disaggregated data of 2014-15, the following points were noted:

- Only 15.1% of all surgeries reported by the project were school children from participating schools or local communities. Since partner or project data did not indicate whether the remaining 85% of children operated were from the project or other areas, it is not possible to comment on these. Sightsavers indicated that the remaining 85% surgeries reported were from project cities (some of the children may have come from project areas without referral but there was no way to determine this from the data available)
- About two-fifths (41.7%) of all surgeries performed on school children or those from local communities were for cataract. This is based on data confirmed by the project
- Of all cases identified for surgery among school children and those children in local communities, less than one-fifth (17.2%) turned up for surgery at participating hospitals (some of the children may have come from project areas without referral but there was no way to determine this from the data available). This also suggests that there may be other factors like social determinants of health (e.g. poverty, cultural practices, ethnicity, decision making, illiteracy) that influence the decision for surgery

Several points were observed in relation to referrals. One of the partners (LRBT) established a robust referral system with a fast-track service for children referred from the participating schools or project activities. Other partners, being government institutions, attempted a similar service but were not as efficient because these hospitals have to follow first come first served protocols and these could not be changed for the project. Furthermore, parents complained of long waiting times. In the case of LRBT, children from schools from nearby areas had a higher percentage of referral turnout compared to those schools in areas farther away. For instance, it took the Evaluators 45 minutes from LRBT hospital to visit one of the schools in Hussainabad in Karachi, and one hour and fifteen minutes on the return journey back to LRBT hospital. The teachers, parents and children highlighted the distance issue and stated their preference for visiting a local optician or eye specialist in case of a referral.

While there was no concrete evidence in quantifiable terms of reduction in school dropouts, FGDs with teachers and school children revealed that there was an overall improvement in classwork, homework completion and classroom participation by children dispensed spectacles. Furthermore, as there is no school fees in government schools (other than a token PKR 20 per child) and no annual examination until class five, the issues of school dropouts are diminishing.

Recently, both provincial governments of Punjab and Sindh have begun to introduce class performance assessments through learning outcome techniques (e.g. the District Teacher Educator monitors class performance regularly every month and submits a report to the Programme Management and Implementation Unit of the Education department). However, it was noted that there was no column for vision impairment in the reporting form being used, the inclusion and incorporation of which could have been one of the advocacy objectives for the project.

Impact

Spectacle Compliance

Sightsavers conducted an internal monitoring review on the use of spectacles dispensed by the project as per one of the recommendations of the MTR. In this review, a purposive sample of 120 schools was selected - 40 schools from Karachi and 20 from Lahore, Faisalabad, Multan and Rawalpindi each. Three private schools did not show any interest to participate in the study. Therefore, the sample was reduced to 117 schools. The database of the PUPEC project was used for the identification of all children in sampled schools who were provided with spectacles free of cost under the project. All 2,731 (100 %) children who had been provided with spectacles constituted the sample of beneficiaries. When the actual visits to the schools were conducted, only 1,580 (50.5%) children were found to be present in the selected schools. All 1,580 were provided with questionnaires for data collection. Keeping in view the limited capacity of the children, data collection teams were deployed to record the responses on answer sheets while questioning the children.

This review revealed the following:

- About a third (32.6%) of children identified with refractive errors were already using spectacles at the time of the project – however, they were also re-screened by the project. The data indicates that 77.6% of children with previous prescription (those who were wearing glasses at the time of screening) required a change in prescription. During the FGDs, several children indicated a change in spectacles after the screening process
- Just under three-fifths (56. 6%) of children (895 out of 1,580) dispensed with spectacles were using them, while 43.4% (685 out of 1,580) were not. In about three-fifths (59.4%) of the cases not using spectacles (407 out of 685), the children said that the spectacles had broken and just under a third (30.9% 212 out of 685) said that their family could not afford a second pair
- In all those who were dispensed spectacles, over four-fifths (83.7%) indicated improvement in vision, while over half (54.6%) noted an improvement in their studies these responses are subjective as there was no quantitative test performed. However, they are indicative of the benefit perceived by the children
- About a fourth (21.5%) of children who needed a second pair of spectacles were provided for by their parents – this suggests that there was an element of 'willingness to pay' even in the poor slum communities
- Teachers noted an improvement in class performance and studies in over fourfifths (81.5%) of children dispensed with spectacles; they also noted an improvement in confidence in 13% of students using spectacles - these responses are subjective as there was no quantitative test performed. However, they are indicative of the benefit that was observed by the teachers

These findings suggest that there was a positive outcome on class performance and child confidence especially when children with refractive errors used their spectacles. This would need to be validated with appropriate quantitative and qualitative tests.

The high rate of spectacle breakage is of concern and merits further analysis by partner and location to determine if there was an issue of quality of spectacles provided by the vendor. Provincial/city level disaggregation of data on spectacle breakage is summarised below:

- Karachi LRBT (28.5%) and PCB Cell (26%)
- Lahore 29.4%
- Rawalpindi 11.3%
- Faisalabad 18.4%
- Multan 29.6%

These data indicate that in three project sites, every third or fourth pair of spectacles suffered from breakage, while in two sites it ranged from every tenth to every fifth pair of spectacles. This warrants further discussion in the organisation as to why there was such variation in the project sites and learn what practices were adopted by the partner in Rawalpindi to achieve a low breakage rate. Furthermore, the organisation needs to determine what steps need to be taken to reduce the rate of spectacle breakage in such projects, and what quality assurance protocols need to be instituted in future.

Coverage and Access

The project was conceived and executed as a campaign and this helped to significantly bolster existing paediatric ophthalmic services at participating tertiary teaching hospitals and increased their patient load. The project also had a specific objective of strengthening health systems through human resource development. While the project was successful in establishing a need for school screening for refractive errors and training human resources (teachers), it was not able to demonstrate integration of vision screening in health and education systems (including reporting systems) as the project ended. For example, who will provide refresher training to teachers, and who will record, submit, collate, analyse and report vision screening data from the schools?

Figure 1 below shows a dramatic increase of almost 250% in paediatric cataract surgeries from pre-project year 2010 to well within the project in 2012 at COAVS (these refer to only those cataract surgeries on children from project cities, and not all the surgeries performed by the partner). There is a sharp decline in 2013 that has just begun to recover in 2014. This was due to a dengue epidemic in which several thousand people had to be accommodated in the wards in government hospitals. The increase in paediatric outpatients was modest at 11% during the same period (this refers to all paediatric eye outpatients as there was no way of determining how many were from the project areas).



Figure 1 - Paediatric outpatient and cataract surgery trends at COAVS

A similar picture was observed at LRBT Hospital in Lahore whe

A similar picture was observed at LRBT Hospital in Lahore where there was a 13.5% increase in paediatric surgeries (these refer to only those cataract surgeries on children from project cities, and not all the surgeries performed by the partner) and an almost same increase (12%) in paediatric outpatients between 2010 and 2013 (Fig 2) (this refers to all paediatric eye outpatients as there was no way of determining how many were from the project areas).

These trends indicate that the project enhanced the service workload at these tertiary hospitals, whether by increased awareness among local and adjacent communities, or by word of mouth. It also demonstrated that capacities at the partner hospitals to cope with an increased workload were also sustained throughout the project.



Figure 2 - Paediatric outpatient and cataract surgery trends at LRBT Hospital Lahore

(Source: Sightsavers Pakistan Country Office and LRBT)

In Pakistan, it is estimated that about 45.5% of the urban population lives in slums¹⁵. According to the World Population Review¹⁶, the estimated population of the five urban areas where the project was implemented is as follows:

- Karachi 11,624,219
- Lahore 6,310,888
- Faisalabad 2,506,595
- Rawalpindi 1,743,101
- Multan 1,437,230

The total population comes to 23,622,033. The slum population would be an estimated 10,748,025. About 30% of the slum population are children, which account for 3,224,408¹⁷.

¹⁵ Slum population as a percentage of urban – Pakistan 2014. Millennium Development Goals Indicators. United Nations Statistics Division, Department of Economic and Social Affairs, United Nations.

http://mdgs.un.org/unsd/mdg/seriesdetail.aspx?srid=710 accessed on 29th November 2015 ¹⁶ http://worldpopulationreview.com/countries/pakistan-population/major-cities-in-pakistan/ accessed on 29th November 2015

¹⁷ Pakistan Statistics. UNICEF. <u>http://www.unicef.org/infobycountry/pakistan_pakistan_statistics.html</u> accessed on 29th November 2015

The project screened 1,519,653 children and this accounts for about 47.1% of the school-aged childhood population in the slum areas in the five cities. This indicates that the project exceeded its target of screening 40% of children in slum areas.

Furthermore, the project found a prevalence of uncorrected refractive error of 3.72% which compares well with national data¹⁸ and thus has established an evidence base for refractive errors in school children.

Based on this prevalence of visually disabling refractive errors, 119,947 children of the 3,224,408 children in the slum areas would be in need of correction of refractive errors. The project dispensed spectacles to 56,663 children and therefore met 47% of the overall estimated need. This is a remarkable achievement of the project considering that it had aimed for a 20% reduction in childhood blindness.

In estimating the impact of cataract surgery, the cataract surgical data reported by partners includes all children operated from the project cities (and not just project sites or slums). Therefore, in the combined population of the five cities (23,622,033), there would be an estimated 7,086,609 children (30% of total population), and of these, there would be an estimated 5,669 children blind¹⁹ (based on a childhood blindness prevalence of 0.08% or 8 per 10,000 children). Of these, the cataract surgical need would account for about 10%-30% (567 – 1,700) of all cases of childhood blindness²⁰. The project operated 1,432²¹ children with cataracts from the project cities. However, we do not know if a proportion of these have been double counted for operation on their second eye. We also do not have data on how many children were operated on both eyes in one sitting. Furthermore, there was no data available on the visual outcome of children operated.

Based on data available, we can only infer that the project contributed towards reducing the cataract surgical need and achieved an annual paediatric cataract surgical rate between 50 to 60 per million children. To the best of our knowledge, there is as yet no benchmark for paediatric cataract surgical rates that can serve as a target. However, Courtright et al²² attempted to determine the Childhood Cataract Surgical Rate (CCSR) in Tanzania and found an average rate of 9.9 per million with a range from 32.3 to 5.4 depending on how close the population was located to a child eye health tertiary facility. This may be an area in which further work may be undertaken at an organisational level.

¹⁸ Hasan Minto, Haroon Awan, Asad Aslam Khan, Aliya Qadir Khan, Sumrana Yasmin and Niaz Ullah Khan. Situation analysis of refractive services in Pakistan. International Research Paper, Academy of Ophthalmic Education, January 2008

¹⁹ Serge Resnikoff, Donatella Pascolini, Daniel Etya'ale, Ivo Kocur, Ramachandra Pararajasegaram, Gopal P. Pokharel, & Silvio P. Mariotti. Global data on visual impairment in the year 2002. Bulletin of the World Health Organization 2004;82:844-851

²⁰ BR Shamanna, R Muralikrishnan. Childhood Cataract: Magnitude, Management, Economics and Impact. Community Eye Health. 2004; 17(50): 17–18.

²¹ Only data from 2012 to 2015 has been included. Data from 2011 was inconsistent and was therefore not included in this total (in all other years, the numbers were by children, while in 2011 it was reported as surgeries)

²² Courtright P, Williams T, Gilbert C, Kishiki E, Shirima S, Bowman R, Lewallen S. Measuring cataract surgical services in children: an example from Tanzania. Br J Ophthalmol. 2008 Aug;92(8):1031-4. doi: 10.1136/bjo.2007.136168.
Partnerships and Collaboration

The Evaluators noted with interest that some partners had utilised the opportunity of the school screening project to orient their postgraduate students in elements of community eye health (which is a requirement by the College of Physicians and Surgeons of Pakistan for candidates appearing for their fellowship examination in ophthalmology). This also provided additional staff to the screening teams and onsite examination by medical professionals.

Furthermore, two partners, PCB Cell in Karachi and Holy Family Hospital (HFH) in Rawalpindi involved their postgraduate students and staff in research work as part of their project activities. HFH published three research papers from the project activities during this period. Some examples of the research work carried out are shown in Appendix 9.

The project also enhanced the institutional knowledge about community approaches. This was evident at two levels.

Firstly, partners who were also running postgraduate training programmes internalised community eye health aspects into their training.

Secondly, the National Eye Health Committee recognised the increasing importance of refractive errors and has begun to incorporate control strategies for it in their provincial eye health plans. For instance, the new Punjab Eye Health Plan 2015-2018 has incorporated screening, refraction and service delivery units in 12 Rural Health Centres per year and created posts for 12 optometrists at these centres per year. Furthermore, the 3-year plan aims to establish 36 low vision clinics, one in each district hospital that will be staffed by a trained optometrist, and has proposed the inclusion of squint and refractive errors data at primary health care level. These steps will serve to improve the referral pathway by establishing referral services closer to the population and raise the profile and importance of refractive errors in children through reporting of new health information indicators.

Pursuant to the recommendations of the MTR, the project engaged with Directorate of Staff Development (DSD) at an operational level whereby District Teacher Educators (DTEs), and heads of Cluster Support Training Centres (CSTCs) and District Support Training Centres (DSTCs) in the project areas were provided orientation and training about vision screening and school eye health. This enabled the supervisory chain to facilitate and allow time to school teachers from their regular schedule for the training in vision screening and to conduct the screening.

The project developed a health and hygiene module, but this was not able to be run as a dedicated module in the in-service teachers training programme. Concurrently with this project, the special education and school education departments jointly developed a pilot project on inclusive education for mild to moderate disability initially to be run in two districts and thereafter scaled up to another 8-10 districts. Now, Sightsavers has engaged with the project management unit of inclusive education in Punjab to use the health and hygiene module especially for vision screening for capacity building of teachers. DSD developed and published a dedicated inclusive education module for this purpose that is now integrated in the in-service teachers training programme. There is a brief mention of school health and screening in this module but not to the extent that one would have envisaged. Higher level engagement at policy and planning level in school education and special education departments would have alerted the project partners to this opportunity for large scale integration, which could have been the second advocacy objective for the project.

In the project areas, two other organisations were also implementing their health and hygiene programmes. These included Reckitt and Coleman Company advertising their soap brand 'Safeguard' and Unilever with their soap brand 'Lifebuoy'. These companies deployed marketing teams that went to each school, engaged school children in various participatory activities, made effective use of visual media like cartoons, and gave children 'take home' activities (e.g. to collect soap wrappers and win a prize). Similarly, the Colgate company runs health and hygiene sessions in schools for dental care. These activities were so successful that all children remembered them and were fascinated with the cartoons. Despite there being a health education and hygiene message on hand washing in the PUPEC project, the project was not able to link up with these companies and derive synergies and enhance coverage e.g. since both the corporate actors and Sightsavers were disseminating IEC on hand washing, this could have been used a common point for engagement with the soap companies and through this process incorporate a message about eye health and vision screening.

Awareness Raising

For creating awareness, the project developed IEC material, but not enough consultation with partners and field testing was undertaken before its dissemination. The brochures and charts were distributed for display in the schools. The Evaluators did not observe any charts displayed in the schools visited for the evaluation. A story book entitled 'Mani ki Kahani' (A story about a child called Mani) was developed and disseminated to the school teachers for creating awareness amongst students. However, this book was not available for all teachers who were trained. Furthermore, during the FGDs, none of the children indicated that they had heard of this story.

The execution of IEC was mainly output driven and could have fared better had the project developed a supporting IEC plan. Furthermore, as alluded to earlier, there was no dissemination through students to families, nor was there any interaction with the parent teacher associations or school management committees. No new messages were developed and disseminated during the life of the project. The implementation of IEC was passive and not as interactive as it should have been.

Sustainability

The PUPEC project had all the hallmarks of a campaign mode initiative – large numbers and high visibility in five leading urban areas of the country, to raise the profile of refractive errors in children, and build momentum for a change in practice (in this case vision screening and eye health integral to school health). Campaign mode projects by their very nature are time-bound and not intended for sustainability per se, but rather to raise public awareness and realisation for a specific social change and drive demand.

The project implementation did not emphasise a comprehensive sustainability scenario like sustaining community awareness mechanisms, back-up support to teacher training, reporting arrangements from schools to education and health departments, which were dependent upon high level advocacy, and consultation and engagement with respective stakeholders. Further, the implementation plan for the project did not develop any in-built roadmap for sustainability. The project engaged health and education stakeholders at the operational level. However, a joint consultation between education and health departments would have been useful to define a joint strategy for sustainability, while underpinning expectations and roles of different stakeholders.

However, the Evaluators found several components of the project that had a high likelihood of sustainability or continuity. These include the following:

- Teachers trained in vision screening over 26,000 teachers were trained and this presents a large workforce, who have learnt and practiced a skill, are now aware of availability of services, have seen the improvement in children wearing spectacles, and are now more sensitive to the needs of children with vision impairment. The teachers now have vision screening guidelines supported by Sightsavers, which can be used as reference material for their knowledge retention and utilisation of skills learnt (e.g. vision screening of children, referral to a health facility) evident in FGDs held with the teachers. Further, these teachers expressed their willingness to continue with screening and referral
- LRBT is the single largest eye care provider in the non-government sector and provides a safety net for the poor it has a network of 17 eye hospitals spread out in the country where it has established refraction services. LRBT has indicated that it will continue with school screening in areas adjacent to its hospitals, but not at the same scale as the PUPEC project. Further, Sightsavers has a long-term partnership with LRBT and can continue to provide technical assistance for school eye health. In addition, Sightsavers has developed a new project with LRBT (funded by USAID and Sightsavers) on childhood blindness and school eye health that will be initiated in early 2016
- Community willingness to pay according to the internal monitoring review, about one-fifth of parents reported replacement of spectacle breakages and paid between PKR 500-700 for a pair of spectacles (this was backed up by information gathered during the FGDs). The parents who participated in the FGDs came from

these poor urban localities and their children were studying in the schools visited. This indicated a willingness to pay by a proportion of poor families. This is further reinforced by the fact that the project spectacle costs ranged between PKR 250-300 per pair, while parents opted for a higher cost with a better range of spectacles at a private vendor

- The surgical costs will continue to be borne by the participating partner hospitals as part of their on-going operations. The government partners indicated that they would use evidence from this project to advocate for allocation of more resources. The paediatric ophthalmology units, especially in Punjab and Sindh will continue to cater for consumables from regular government grants, while LRBT will meet it from its own resources
- An optical outlet has been established at LRBT Korangi in collaboration with Brien Holden Vision Institute and Sightsavers as a separate initiative – this outlet has been developed as a private enterprise and caters for dispensing spectacles at reasonable cost to consumers
- The project provided screening equipment and vehicles for outreach screening activities. The equipment and vehicles shall be used as follows:
 - by COAVS and Holy Family Hospital in a new Seeing is Believing project on diabetic retinopathy
 - o by LRBT in its on-going school screening activities
 - o by PCB Cell for its on-going community outreach activities
 - the equipment and vehicles used in Faisalabad and Multan have been recalled by the National Eye Health Coordinator to COAVS for use in the National Eye Health Programme – Sightsavers Country Office has decided to handover the equipment and vehicles to the partners. In Punjab, it will be handed over through COAVS as it was the umbrella body for project implementation in all four districts of Punjab

There were some areas that could be capitalised on, either as a continuation project or as new initiatives, and include the following:

- In Faisalabad, the District Commissioner was highly impressed with the scope and quality of work and the school screening programme of the partner at Allied Hospital, and he has agreed to donate 12 kanals (about 1.5 acres) of land for development of an institute of ophthalmic sciences and to contribute towards school screening and other eye health initiatives. Further, the head of the ophthalmology department in Allied Hospital in Faisalabad has garnered support from local philanthropists to establish the Faisalabad Eye Trust (FET) that will support various eye health activities²³
- The Special Education and School Education departments are implementing an inclusive education project that already includes screening for mild to moderate

²³ Sightsavers may wish to consider this opportunity separately for possible investment in the proposed new institute of ophthalmic sciences in Faisalabad and realisation of the Faisalabad Eye Trust as Faisalabad is the next rapidly growing metropolis in Punjab with a geo-strategic location in central Punjab

disability (which includes vision impairment, refractive errors etc.) and the government of Punjab has plans to upscale the programme. Further, DSD is already implementing an inclusive education module in the in-service teachers training programme

- Provincial Education Sector Plans include specific policy and strategic actions related to school health and hygiene e.g. the recent Sindh Education Sector Plan²⁴
- Provincial eye health plans including proposal development for provincial government funding for Khyber Pakhtunkhwa and Sindh are in development (Punjab and Balochistan have already developed theirs) and this presents an opportunity for strategic engagement to incorporate school health

Some project staff recruited under PUPEC have already absorbed by partners in various other projects. Table 5 presents a summary of their current status.

Name	Organization and designation	Current status
Mudissara Sammiullah	LRBT Karachi - optometrist	Absorbed into LRBT's own outreach activities
Muhammad Ali	LRBT Karachi – social organiser	Absorbed into LRBT's own outreach activities
lfra lftikhar	LRBT, Lahore – optometrist, but working as a social organiser	Absorbed into LRBT's own outreach activities
Safdar Hussain Wattoo	LRBT Lahore - optometrist	Absorbed into LRBT's own outreach activities
Shahid Sohail	COAVS – programme officer	Absorbed in diabetic retinopathy SiB project supported by Sightsavers
Shahid Rafique	Holy Family Hospital, Rawalpindi – social organiser	Absorbed in diabetic retinopathy SiB project supported by Sightsavers
Muhammad Ali	Holy Family Hospital, Rawalpindi - optometrist	Absorbed in diabetic retinopathy SiB project supported by Sightsavers
Fatima Zehra	PCB Cell, Karachi – programme officer –	Absorbed into trachoma mapping project supported by Sightsavers, but funding ending soon. PCB Cell has submitted a proposal to the provincial government for funding

Table 5 - Current status of selected PUPEC project staff

(Source: Sightsavers Pakistan Country Office)

²⁴ Sindh Education Sector Plan 2014-2018. Education and Literacy Department, Government of Sindh.

Scalability/Replication

The project generated large scale evidence for urban level refractive errors in school children. Over 1.5 million children were screened and the project established that four out of every hundred children are in need of spectacles. Further, the project demonstrated that a significant reduction (almost 50%) of the overall need of uncorrected refractive errors can be achieved through school health initiatives, and when coupled with screening of local communities, a reduction of the cataract surgical need in children can also be achieved.

The project demonstrated that it is both scalable and replicable. For instance, Sightsavers' new initiative in Quetta with LRBT is based on this project approach. Furthermore, other international organisations have also adopted similar approaches (see below). However, it is challenging for the government to adopt a project approach in totality owing to its vertical or parallel structures (for instance, the health and education departments have their own chain of service delivery with very little integration). Governments usually adopt/adapt components of pilot projects in a phase-wise manner and not necessarily as the approach intended by the project. For example, the government of Punjab has adopted vision screening as part of its inclusive education project. Although there seems to be good evidence for this, the project was not able to take advantage of some opportunities that could be scalable or replicable. These include the following:

- Inclusive education is an emerging trend in Pakistan evident from the Punjab and Sindh Education Sector Plans. In addition, both sector plans recognise the importance and significance of health and hygiene. Capacity building of teachers in vision screening enables them to identify children with vision impairment. A similar approach to the PUPEC project has been adopted by the Punjab inclusive education project in two districts. This has the potential for being scaled up initially to 10 districts and then the rest of the province
- The inclusive education project has also adopted a cluster approach where a screening team visits a cluster of schools that have screened children for various disabilities/impairments. This is similar to the PUPEC approach and has potential for scalability

Some of the potential scalability trends have already been alluded to under 'Sustainability'. However, two projects developed and implemented by The Fred Hollows Foundation provide further evidence of replicability of the PUPEC project as Sightsavers shared the details of the project and its periodic progress in the National Eye Health Committee, provincial eye health committees and partners' meetings. Most of the implementing partners are similar for both organisations.

FHF introduced school screening in rural and remote areas from those districts where PUPEC was being implemented in the urban areas – this is a good example or best practice of complementarity while working with the same partners and avoiding wasteful duplication of effort and resources. The modus operandi adopted by FHF was similar to PUPEC (team of optometrist and ophthalmic technician, teacher training in vision screening, provision of one time spectacles, and referral to district hospital or tertiary centre). So far, they have screened over 500,000 school children

- FHF launched a project called 'Active Case Finding in Kids' (ACIK) in Faisalabad, Peshawar and Hyderabad – this project is aimed at identifying children with blindness especially those with treatable causes like cataract, and use various key informants for this purpose
- Brien Holden Vision Institute (BHVI) implemented a project called 'Our Children's Vision' in two districts in Sindh province and one district in Azad Jammu and Kashmir – the project has a similar methodology to PUPEC. BHVI has now planned for a scale up of their project in 2016 to cover four provinces in selected districts and aims to screen two million children over the next three years

However, the Evaluators noted that despite these similar initiatives being undertaken with partners who are also members of the either the provincial or national eye health committees or both, there had been no organisational learning meeting on school screening for refractive errors nor any national document developed by the National Eye Health Committee for this purpose.

The potential for scalability and replication with soap and dental toothpaste companies has already been alluded to earlier under 'Impact'.

It was interesting for the Evaluators to learn that Sightsavers had supported the publication of a document entitled 'WASH and the Neglected Tropical Diseases – A manual for WASH implementers – Pakistan'²⁵. It explains at length the beneficial impact of hand washing on reducing the burden of soil transmitted helminths and trachoma. However, even though there was a hand washing component in the PUPEC IEC activity, the project missed an opportunity to link school screening, hand washing and control of Neglected Tropical Diseases.

Although the main focus of the PUPEC project was school screening for refractive errors and childhood blindness, the project had a potential to draw the attention of the corporate sector to the link between hand washing and eye health. The corporate sector has a much bigger outreach and engagement for creating awareness, even though it is primarily for their own products. The PUPEC project could have been a convergence point with their health and hygiene initiatives and subsequently scaled up through their programmes.

 ²⁵ WASH and the Neglected Tropical Diseases – A manual for WASH implementers – Pakistan, 2013. Sightsavers,
 Department for International Development, International Trachoma Initiative, Children Without Worms, WaterAid, WASH
 Advocates, Center for Global Safe Water, Emory University, and CARE USA

Coherence/Coordination

Overall, the project demonstrated considerable coherence between its objectives, activities and outputs. This is evident from the fact that almost all targets were exceeded, but some of the outcomes could not be achieved. The project was output driven and the momentum for implementation was sustained throughout the life of the project. The case load of screening activities and at tertiary hospitals indicates that the project did not have a slow start-up phase that occurs in many large scale projects. While the process to deliver project outputs was consistent in all project areas, there was need for more thought and engagement to deliver the impact aspect of the project (as has been explained in earlier sections).

There was an impressive level of coordination and collaboration at operational level that led to achievement of targets, massive school screening, nomination of teachers, setting aside time for screening, refresher training, and follow-up. The CSTC heads and DTEs were actively involved in facilitating this process. The partner organisations ensured that the project screening teams had detailed schedules for their activities and these were developed in consultation with the DSTCs, CSTCs and DTEs.

However, while the operational level coordination and collaboration was adequate for achieving project activities, higher level coordination and collaboration was required for institutional change. For instance, coordination and collaboration was evident with the district level education structures and school authorities, but school screening guidelines could not be developed as that required engagement at School Education and DSD level. Further, school screening material was published with partner logos, but did not have the visibility of the School Education department or DSD, and therefore may not enjoy their ownership beyond the life of the project. The School Education and Health departments were not able to assimilate, internalise and integrate the learning ensuing from the project into their ongoing programmes.

Presently, two types of government schools are working in urban areas. These are mostly by Education department and others by respective municipal corporations i.e. Karachi Metropolitan Corporation, Lahore Metropolitan Corporation, etc. These two streams have different administrative arrangements especially staffing, training and budgeting. No specific relationships or linkages were established with corporations for school screening as no mapping of relevant actors and stakeholders had been undertaken.

Similarly, few health facilities (dispensaries) in urban areas are managed by respective corporations but these have not been actively involved in project. These nearby facilities are key for the sustainability of the programme as they are usually the first port of call for the communities for their health problems.

Although the Directorate of Katchi Abadies (slums) in the provinces are responsible for declaring the status of any areas as slums, the definition, however, is very fluid. These areas are administrated by respective metropolitan and municipal corporations for provision and access to essential services i.e. water supply, school, health services, etc. The directorates have little information about the availability and type of social services in these areas.

The Karachi Metropolitan Corporation (KMC) is divided into eighteen towns (Fig 3) governed by elected municipal administrations responsible for infrastructure and spatial planning, development facilitation, and municipal services (water, sanitation, solid waste, repairing roads, parks, street lights, and traffic engineering), with some functions being retained by the KMC.



Figure 3 - Map of Karachi Towns

The project may have benefitted further from interacting with respective municipal corporations responsible to manage a sizeable number of schools and develop future plans of the city. In addition, these corporations are responsible for hygiene of the city dwellers through a network of sanitary workers to collect and dispose solid waste and cleanliness of the city including back up support to the schools.

Summary Conclusions

To date, this is one of the largest school eye health screening projects carried out in urban areas of Pakistan. Various UN agencies like WHO, UNESCO, and UNICEF have also undertaken pilot initiatives in school health. However, while these projects have continued as pilot initiatives, no province is currently fully implementing a district-wise school screening programme.

As there was no vision screening programme of school children, especially in government schools in the project areas, a large number of school children with refractive errors did not know they had a refractive error, while parents were not aware of the implications of vision impairment and where to go for services for eye care for their children. The project was highly relevant as it sought to address this unmet need of school children and parents as evidenced by about 47% of the overall estimated need of uncorrected refractive errors in slum children that was met by the project.

The PUPEC project demonstrated a high level of synergy with the National Education Policy 2009, National Drinking Water Policy 2009, National Sanitation Policy 2006, and was well aligned with the MDG priorities of universal primary education, health and nutrition, and environmental sustainability. The project adapted and used the WHO EMR Guidelines on School Eye Health (post-MTR) and therefore provided a regional perspective tested at national level. Additional high impact synergy could have been derived by the project by engaging with post-devolution changes at provincial level and with UN agencies to enhance integration and institutionalisation of vision screening in school health.

The project's achievement of its service delivery targets was commendable as it exceeded almost all targets. The findings indicated that while the project attained a high level of achievement of project outputs, it lagged behind in outcome level achievements that could have been used as a leverage for engagement with the education sector.

The project placed emphasis on vision screening of girls. While the project had a comprehensive monitoring and reporting system, there was no supporting quality assurance mechanism.

Every nine out of ten of all school children who required refraction (92.2%) and those who required spectacles (93.2%) were in classes other than Class I. However, in 2014-15, the project had a high false positive rate (35.3%) with a true positive rate of 64.7%, which is lower than expected and relates to the quality issue about vision screening. There was insufficient data to draw any conclusions about sensitivity and specificity.

15.1% of all surgeries reported by the project were school children from participating schools or local communities. Of all cases identified for surgery among school children and those children in local communities, less than one-fifth (17.2%) turned

up for surgery at participating hospitals. However, there was not enough data to determine whether children from project areas had been operated at the partner hospitals without being specifically referred by the screening teams.

An internal monitoring review on the use of spectacles dispensed by the project revealed that there was a positive outcome on class performance and child confidence especially when children with refractive errors used their spectacles.

The project exceeded its target of screening 40% of children in slum areas, met 47% of the overall need of uncorrected refractive errors and contributed towards a reduction in childhood cataract surgical need in the project cities.

The project also enhanced the institutional knowledge about community approaches. This was evident from partner participation in research, internalising community eye health in postgraduate training programmes, and incorporating control strategies for refractive errors in the Punjab provincial eye health plan.

Higher level engagement at policy and planning level in school education and special education departments would have alerted the project partners to concurrent implementation of an inclusive education project by government of Punjab, and therefore could have been used as an opportunity for large scale integration.

The PUPEC project had all the hallmarks of a campaign mode initiative – large numbers and high visibility in five leading urban areas of the country, to raise the profile of refractive errors in children, and build momentum for a change in practice (in this case vision screening and eye health integral to school health). The project implementation did not emphasise a comprehensive sustainability scenario.

Several components of the project had a high likelihood of sustainability or continuity. These include over 26,000 teachers trained in vision screening, which represents a large workforce; LRBT has indicated that it will continue with school screening in areas adjacent to its hospitals, but not at the same scale as the PUPEC project; about 20% of spectacle breakages were replaced by the parents; surgical costs will continue to be borne by the participating partner hospitals; and an optical outlet has been established at LRBT Korangi as a private enterprise.

The project generated large scale evidence for urban level refractive errors in school children. Over 1.5 million children were screened and the project established that four out of every hundred children are in need of spectacles.

However, despite other INGOs also supporting similar school screening initiatives, there had been no organisational learning meeting on school screening for refractive errors nor any national document developed by the National Eye Health Committee for this purpose. Further, cross-sectoral learning with other school health initiatives was also a missed opportunity to learn and engage with the corporate sector, where Standard Chartered could have played a catalyst role.

There was an impressive level of coordination and collaboration at operational level that led to achievement of targets, massive school screening, nomination of teachers, setting aside time for screening, refresher training, and follow-up.

However, while the operational level coordination and collaboration was adequate for achieving project activities, higher level coordination and collaboration was required for institutional change.

The project may have benefitted further from interacting with respective metropolitan and municipal corporations responsible to manage a sizeable number of schools and develop future plans of the city.

Learning

While delivering projects at this scale, it is vital to remain abreast of other developments taking place in the related sectors so that engagement can be initiated with relevant stakeholders and actors for strategic integration even if the original project design had not anticipated these changes, for such projects tend to be dynamic in nature.

The project demonstrated weaknesses in three main areas that could have improved its effectiveness – monitoring and evaluation with learning, a well conceived advocacy strategy, and a supporting IEC plan. Neither Sightsavers Pakistan Country Office nor the partners had expertise and capacities in these areas with the result that outcome and impact at policy and planning level was not achieved. Future large scale projects and programmes should consider inclusion of and funding for dedicated resource persons at partner level for Monitoring, Evaluation, Analysis and Learning (MEAL); and Communications to support advocacy and IEC. There is great merit in considering a separate Project Management Unit (independent of partner staff) for the life of the project, which reports to Sightsavers and includes capacities for project management, MEAL, and finance and communications - to plan, coordinate, monitor and report progress.

Parents of school children in poor slum areas are usually daily wage earners or casual labourers, for whom even a day's absence from work not only means loss of earnings for that day but also the risk of losing the casual job placement. This has obvious implications on participation and involvement of parents as stakeholders and further necessitates the need for dissemination of eye health education messages through children to their families. Furthermore, such parents may not be able to meet the repeated cost of replacement spectacles e.g. after breakages.

Large scale projects like PUPEC should not only be seen as output driven interventions, but rather as springboards that provide strategic level engagement with related departments in the public sector to influence change at policy and planning level, supported by a well conceived and executed advocacy and communications strategy and action plan.

Sustainability should not be assumed to be a by-product that comes about by default in a large scale project, but rather a roadmap for sustainability should be defined at the outset so that all participating partners are aware of and subscribe to the implications and responsibilities, and that milestones can be charted and monitored.

An opportunity could have been availed for cross-sectoral learning and linkage with other school health initiatives e.g. Reckitt and Coleman for 'Safeguard' soap, Unilever for 'Lifebuoy' soap, Colgate for dental check-up in primary schools, hand washing for control of soil transmitted helminths etc., and also to learn and engage with the corporate sector. This is an area where Standard Chartered could have played the role of a catalyst.

Government systems and processes operate through a multidimensional mechanism that is complex but not necessarily complicated. In the urban context, it is imperative that one has a sound understanding of the administrative structures and level of autonomy, their jurisdictions, decision making structures, and the scope of services within their area of authority. This would greatly facilitate and prioritise engagement for conceptual approval, collaboration and coordination, awareness raising, execution and targeted advocacy for a tangible impact.

Recommendations

Project Management

- 1. Undertake mapping of institutional arrangements and actors so that vertical (hierarchical arrangements e.g. provincial, metropolitan, district, sub-district structures) and horizontal (hospitals, schools, social welfare, training institutes, non- governmental organisations, optical shops etc) linkages and potential synergies can be identified at the outset and pursued during the project.
- 2. Conduct a stakeholder analysis at the inception of the project (and update annually) to determine the influence and impact of different actors and institutions directly or indirectly related with the objectives of the project.
 - a. Use the results of the stakeholder analysis to inform concurrent advocacy and communication requirements and coordination arrangements.
- 3. Establish a baseline at the inception of the project that includes an assessment of health behaviours among target communities through KAP/community survey, and mapping of nearby health facilities and private vendors (e.g. opticians) that are most frequented by them.
 - a. Use the findings of the baseline survey to determine the referral pathway, willingness to pay and whether any local capacities in these health facilities or services need to be strengthened.
- 4. Create and develop a critical pathway for quality assurance at the outset of the project interventions. This may be achieved by the following actions:
 - a. Ensure that necessary capacities are developed to implement and monitor quality assurance mechanisms.
 - b. Utilise a Global Positioning System (GPS) derived database (e.g. use of tablets) during screenings at the school cluster level for improved monitoring, reporting, analysis and tracking (referral pathway, follow-up cases and monitoring compliance)
 - c. Separate the functions of MEAL, communications and social mobilisation, and appoint dedicated persons with necessary competence for these identified roles

Partnerships and Advocacy

- 1. Seek integration of school eye health through the education route rather than just health by more strategic level engagement with education partners to create greater ownership and coverage in schools.
 - a. In Punjab province at least, link up with the inclusive education programme of the government as a strategic entry point for school eye health.
 - b. Engage the school education departments by using the Education Sector Plans as entry portals for school health to institutionalise vision screening and eye health
 - c. Organise a provincial consultation meeting under the leadership of the education department to understand the opportunities and barriers to curricular change for school health and identify a joint strategy for integration of school eye health in the curriculum

2. Hold a national consultation meeting under the auspices of the National Eye Health Committee to document learning from various school screening initiatives, produce a national consensus document on school screening and hold national and provincial level meetings for dissemination of best practices in school screening.

Appendices



Appendix 2 – Evaluation Matrix

Relevance

		Data Collection Technique			
	Key Evaluation question to be addressed	Primary Data Tools	Secondary Data Tools	Data Source	
1.	How relevant is the project to the needs of the target beneficiaries, partners and development priorities of the country?	Synthesis and thematic analysis	Interviews	 Provincial health and education 	
2.	How well is the project aligned and relevant to MDGs/SDGs, WHO global eye health action plan and national and provincial eye health plans?	Synthesis and thematic analysis	Interviews	 policies Provincial development plans Metropolitan City Plans where feasible Global Action Plan Universal Eye Health 2014- 2019 Poverty Reduction Strategy Paper National Blindness Survey 2002-04 Provincial eye health plans Seeing is Believing Objectives UNCRPD Vision 2020 – The Right to Sight WHO Health Systems Framework 	

3 How has the project built on the existing childhood blindness control interventions implemented by other INGOs in the public and private sector?	Synthesis and thematic analysis	Interviews	 INGO reports – Brien Holden Vision Institute and Fred Hollows Foundation
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Effectiveness

		Data Collection Technique				
	Key Evaluation question to be addressed	Primary Data	Secondary Data	Data Source		
		Tools	Tools			
1.	How effective were the partnership arrangements in identifying needs and achieving the	SSIs	Progress reports	Project reports		
	project outcomes?			Partner heads		
				 Local authorities 		
2.	To what extent were the recommendations of MTR implemented and how did they	SSIs	Observation	Project reports		
	enhance programme delivery?			Sightsavers PCO		
			Management	Partner		
			Response	organisations		
3	How effective was the project in generating demand including raising awareness,	Project outputs	FGDs	Project reports		
	increasing uptake of paediatric eye care services and ensuring follow up of children with			Sightsavers PCO		
	complicated eye problems that need regular and expert medical advice?	Partner outpatient		Partner		
		and surgery outputs		organisations		
4	How effective was the project in addressing gender equity in terms of provision of	Project outputs		Project reports		
	services?			Sightsavers PCO		
		Partner outpatient		Partner		
		and surgery outputs		organisations		

Efficiency

		Data Collection Technique			
	Key Evaluation question to be addressed	Primary Data	Secondary Data	Data Source	
		Tools	Tools		
1.	How efficiently has the project strengthened the existing systems and approaches for	SSIs	Observation	Project reports	
	combating childhood blindness?			Sightsavers PCO	
		Synthesis and		Partner	
		thematic analysis		organisations	
2.	How efficient was the project in building capacities of teachers to reach the maximum	SSIs	Observation	Project reports	
	number of school children with eye health problems? Particularly, what were some of the			Sightsavers PCO	
	challenges specific to screening all children as opposed to screening targeted year	Synthesis and	Progress reports	Partner	
	groups?	thematic analysis		organisations	
3	How efficient was the screening tool (particularly its sensitivity and specificity) across the	Project outputs		Project reports	
	two provinces? (e.g. percentage of false positives and negatives)			 Sightsavers PCO 	
				 Partner 	
				organisations	
4	What are the key learnings for identifying children with low vision in schools and	SSIs	Observation	 Project reports 	
	communities and providing low vision devices? What were the specific challenges?			Sightsavers PCO	
				Partner	
			-	organisations	
5	How has the re-screening for refractive errors and refresher trainings for teachers	SSIs	Progress reports	Project reports	
	enhanced the overall project efficiency?			Sightsavers PCO	
		FGDs		Partner	
				organisations	
-				Teachers	
6	How efficient was the follow up mechanism for strengthening the referral chain from	FGDs	Observation	 Project reports 	
	school/communities to partner hospitals and how this has addressed the dropout rate of			Sightsavers PCO	
	patients for both URE and surgical needs?		Sightsavers	Partner	
			research study	organisations	
			report	Parents and	
				teachers	

Impact

		Data Collection Technique				
	Key Evaluation question to be addressed	Primary Data Tools	Secondary Data Tools	Data Source		
1.	To what extent has the intervention developed institutional capacities of local eye care partners in paediatric ophthalmology, and enhanced required community based outreach activities for combating childhood blindness in the target areas?	SSIs Synthesis and thematic analysis	Observation	 Project reports Sightsavers PCO Partner organisations 		
2.	To what extent has spectacle compliance in children improved as a result of the project?	SSIs FGDs Synthesis and thematic analysis	Observation	 Project reports Sightsavers PCO Partner organisations Teachers 		
3	Was there any difference in access to both RE and surgical services for boys & girls? What were the challenges and how did the project seek to address them?	Project outputs	Observation FGDs	 Project reports Sightsavers PCO Partner organisations 		
4	What institutional changes did the project introduce at Directorate of Staff Development regarding teachers training in vision screening?	SSIs	Progress reports	 Project reports Sightsavers PCO DSD Officials 		
5	What contribution has the project made in reducing the childhood cataract backlog/burden of disease? Is there any evidence of the projects impact on the lives of children in general and female children in particular?	Project outputs		Project reportsCase studies		
6	How did the project improve access to low vision services & aids? What was the low vision access for children post-surgery?	FGDs Project outputs		 Project reports Sightsavers PCO Partner organisations 		
7	How successful was the IEC strategy of the project for raising awareness of the communities in general and parents/families in particular around child eye health issues?	FGDs	Project data on attendance	 Sightsavers PCO Partner organisations Parents and teachers Local authorities 		

Sustainability

		Data Collection Tec	hnique	
	Key Evaluation question to be addressed	Primary Data	Secondary Data	Data Source
		Tools	Tools	
1.	What are the key factors that may contribute towards financial, programmatic and social	SSIs	Observation	Project reports
	sustainability of the programme and wider health systems beyond SiB IV? (e.g. post			Partner heads
	project operational expenditure, continuation of paediatric eye care and screening	Synthesis and		Local authorities
	services, provision of spectacles, training of permanent HR/ teachers, CBL alignment with	thematic analysis		Household and
	national / provincial eye health plan, sustained demand for eye care and policy changes to			Integrated
	drive supply)			Economic Survey
				Multiple Indicator
				Cluster Surveys
				Benazir Income
				Support
				Programme
				Katchi Abadis
				(Slums)
				Directorate

Scalability/Replicability

		Data Collection Technique				
	Key Evaluation question to be addressed	Primary Data	Secondary Data	Data Source		
		Tools	Tools			
1.	To what extent does the project or its components appear scalable and replicable in other	SSIs		 Project reports 		
	areas of Pakistan? What evidence exists to validate this?			Partner heads		
		Synthesis and		Local authorities		
		thematic analysis		 INGO reports – 		
				Fred Hollows		
				Foundation and		
				Brien Holden		
				Vision Institute		

Coherence/Coordination

		Data Collection Technique				
	Key Evaluation question to be addressed	Primary Data	Secondary Data	Data Source		
		Tools	Tools			
1.	Are the activities and outputs of the programme consistent with the overall goal?	Synthesis and thematic analysis	SSIs – partner organisations	 Project reports 		
2	To what extent has coordination and collaboration among key stakeholders created synergies in achieving the overall project goal?	SSIs	Observation Minutes of meetings	 Project reports Partner heads Local authorities 		

Appendix 3 – Questions for Key Informants and Focus Group Discussions

Questions for Heads of Partner Organisations

- 1. How relevant was the project for the target beneficiaries and how has it contributed to your organisational needs and strategic plan /vision?
- 2. What were the key challenges in achieving the agreed outcomes/outputs? Were targets realistic and achievable?
- 3. Were you satisfied with the proposed approach and strategy of the project? If yes, give reasons, and if not please elaborate what should have been done differently?
- 4. How did your organisation benefit from this project? Capacities, resources, systems?
- 5. What kind of training did you organise for your staff and other stakeholders through this project? What was achieved through these trainings?
- 6. How do you foresee the sustainability of the programme? What kind of mechanisms are in place and what should be done? What could be planned and executed differently for such projects in future?
- 7. How was coordination developed and maintained with different stakeholders especially cross departmental collaboration and interactions?
- 8. How would M&E and reporting mechanisms developed under the project be cascaded in the organisation?

Questions for Project/Screening Teams

- 1. What are your views regarding the workload e.g. targets, locations and reporting of the project?
- 2. How was your workplan developed? How did it relate to targets and quality? How were different stakeholders and staff in your organisation involved in development of the workplan?
- 3. What role did the project play in development of your capacities?
- 4. How did you assess and monitor the capacities of teachers who were trained for screening?
- 5. How did you verify the data shared by the schools and teachers? What type of feedback did you provide to them?
- 6. What mechanism did you have to follow up children who had been operated (referred for surgery or operated through the project)
- 7. How was the post-operative care record of children operated through the project maintained?

- 8. How was the IEC material developed, and how was it shared with the community? How was it useful in raising awareness in the communities please specify?
- 9. What type of feedback did you receive from Sightsavers on your project reports?

Questions for Local Authorities and Education Department/DSD

- 1. What do you know about the school screening programme being executed by Sightsavers and its partners?
- 2. How is child/school health reflected in your current projects and policies? Any recent initiatives?
- 3. What are the key challenges in reaching the communities living in katchi abadies/slums?
- 4. Have school screening guidelines been integrated in pre-service and in-service training courses? What kind of support was extended by Sightsavers in developing these materials?
- 5. Any resource allocation/budget for school health screening or even for hygiene especially for urban areas?
- 6. What will be the scope of school screening and child health under the new Local Government Act 2013 after local bodies elections especially when there will be education committees and health committees in main cities?

Questions for Teachers

- 1. What was covered in the training? What was the duration of the training? Are you satisfied with the training? Why and what steps should be taken to improve and enhance/build on it? What are your views about the refresher training?
- 2. What steps are taken in eye health screening and where are children with vision impairment referred to for further check up? How many children went for further referral? Did you note any difference between boys and girls?
- 3. What kind of support do teachers provide to the students using spectacles and assistive devices for compliance? What effect did this have?
- 4. How will teachers perform and continue to do the screening and referral after ending of support from screening teams?
- 5. Were reference materials/guidelines provided for eye screening? Were these guidelines useful and appropriate for your needs? What are your views about IEC materials developed by the project?

Focus Group Discussion with Parents and Community Members

1. Do you know about any programme dealing with eye health screening of children in your areas? if yes, how did you come to know about this programme?

- 2. Has any of your children benefitted from this programme? If yes, what and how? Was there any difference for boys and girls?
- 3. If your child was prescribed surgery, who bore the cost of surgery, and are you satisfied with the outcome? Did you visit the hospital for post operation follow-up?
- 4. If your children were prescribed with spectacles, did the project provide these to the children? Do the children use these spectacles? When and if broken, what do you do for these spectacles?
- 5. What price are you willing to pay for spectacles?
- 6. Did you come across any IEC materials developed by the project? How useful were these in raising your awareness? Did they influence your decision to seek services for your children?

Focus Group Discussion with Children

- 1. Were you facing any difficulties with your vision before the eye health screening in your school?
- 2. How did you come to know that your vision was affected?
- 3. Who prescribed you any spectacle or assistive device?
- 4. Did these spectacles and assistive devices bring about any change in your life? If yes, what? If not, why?
- 5. Do you face any challenge in using these spectacles and devices? Please elaborate if you have an issue with design, colour, etc. How can we overcome these challenges in the future?
- 6. Did the identification of your affected vision result in screening of any other family members in your house?

Questions for INGOs

- 1. How does child eye health or childhood blindness fit with your organisational strategy? Has your organisation been supporting any school or child eye health initiative in Pakistan? if yes, where and has this project complemented these?
- 2. What are the key learnings and challenges in the successful implementation of child eye health in your project areas?
- 3. How efficient and cost effective is your approach? Please can you share per unit costs for child screening and surgery?
- 4. What will be your guidance and advice to integrate school eye health into existing health and education plans of Government of Pakistan? Do we have the necessary evidence and advocacy support for its integration?
- 5. What adaptations are required in the EMR Guidelines for School Eye Health to meet local needs?

Appendix 4 - List of Persons met and places visited

List of Partners Visited:

- 1. College of Ophthalmology & Allied Vision Sciences (COAVS), Lahore
- 2. LRBT, Karachi
- 3. Prevention and Control of Blindness Cell, Civil Hospital, Karachi
- 4. Allied Hospital, Faisalabad
- 5. Holy Family Hospital, Rawalpindi

List of Partner Heads met:

- 1. Mr Saquib Hameed Chairman, LRBT
- 2. Mr Umar Ghafoor CEO, LRBT
- 3. Prof Asad Aslam Khan, Director, COAVS
- 4. Prof Mohammad Sultan Head, Department of Ophthalmology, Allied Hospital Faisalabad
- 5. Prof Ali Raza Head, Department of Ophthalmology, Holy Family Hospital, Rawalpindi
- 6. Dr M Nawaz Assistant Professor, Department of Ophthalmology, Allied Hospital Faisalabad
- 7. Dr M B Abbasi, Deputy Programme Director, PCB Cell, Sindh
- 8. Ms Mudasira Samiullah Refractionist, LRBT Karachi
- 9. Dr Arif Hussain Community Ophthalmologist, COAVS, Lahore
- 10. Mr Iqbal Javed Optometrist, COAVS, Lahore

List of Government Officials met:

Mr Hamid Qasim – Additional Director, Education Directorate, Karachi

Mr Mirza Arshed Baig – District Officer, Academic Training, Karachi

Mr Asad Ali – Director, Katachi Abaadis Directorate, Karachi

Mr Misbah ul Islam – Senior Deputy Director, Katachi Abaadis Directorate, Karachi Mr Asif Zaidi – Consultant, Katachi Abaadis Directorate, Karachi

Mr. Joved Mirze Accietant Director Dispring Directorate, Karachi

Mr Javed Mirza – Assistant Director Planning, Directorate of Staff Development, Lahore

Mr Muhammad Amir Khattak – Director General, Katchi Abaadis Directorate, Lahore Ms Syeda Tahira Anjum – Principal, Elementary Teachers Training College, Kot Lakhpat

Ms Rubina Kausar – Principal and Acting Assistant Education Officer, Lahore

Ms Nighat Jehan – Assistant Education Officer, City, Faisalabad

Ms Robina Kausar – Assistant Education Officer, Faisalabad

Mr Asghar – Assistant Education Officer, Faisalabad

List of INGO Representatives met:

- 1. Ms Sumrana Yasmin Regional Director South East Asia & Eastern Mediterranean, Brien Holden Vision Institute
- 2. Mr Farooq Awan Country Director, The Fred Hollows Foundation
- 3. Sightsavers Pakistan Country Office Team

List of Private Schools:

- 1. Nasir English Secondary School, Karachi teachers and students from RR Memorial School and a Community school also participated in the FGDs
- Ronaq-e-Islam Girls Secondary School, Karachi teachers and students from Fizan Public School, Ahmed Bawani and Metropolitan School also participated in FGDs

List of Government Schools:

Karachi

- Government Girls Secondary School Wali Mohammad Haji Yaqoob
- Girls Primary School Town Committee

Lahore

- Government Boys High School, Gulberg teachers and students from Government primary School Gulberg, Government Girls Middle School Khanum Gulberg, Government Primary School Ghosia Gulberg, and Government Boys High School Luck Line also participated in the FGDs
- Government Girls High School Fan Road, Lahore teachers and students from Government Girls High School Mozang, Government Primary School Safanwala, Government Girls Middle School Khursheed Mozang Adda, Government Boys High School Fan Road also participated in the FGDs

Rawalpindi

Government Girls Noor Islamia Primary School Saidpur Road Government Municipal Committee Boys High School Ratta Amral Government Municipal Committee Girls High School Ratta Amral

Faisalabad

Municipal Committee Girls Elementary School, Iqbal Nagar Government Girls Guardian Angels Elementary School

City	Number of District Teacher Educators participated in FGDs	Number of Teachers participated in FGDs	Number of School Children participated in FGDs	Number of Parents participated in FGDs
Karachi		31	80	12
Lahore	8	20	110	6
Rawalpindi		27	121	12
Faisalabad		25	24	10
Total	8	103	335	40

Appendix 5 – Work Plan

	October			November				December			January 2016	
	Week 3	Week 4	Week 1	Week 2	Week 3	Week 4	Week 1	Week 2	Week 3	Week 4	Week 1	Week 2
Inception Report												
Approval of												
Inception Report												
Phase 1:												
Desk Review												
Phase 2:												
Field Work												
Phase 2:												
Consultation												
meeting												
Phase 2:												
Meetings with BHVI												
and FHF												
Debrief with												
Sightsavers PCO												
Phase 3:												
Analysis and												
Synthesis												
Phase 4:												
Report Writing												
Submission of Draft												
Report												
Comments on Draft												
report												
Submission of												
Revised Report												

Appendix 6 – Schedule of Field Visits for PUPEC End Term Evaluation

S.No	Location	Date	Activities
1	PCB Karachi	02 November, 2015	Meeting with PCB team
			Visit of two Government Schools to interact with project beneficiaries including Trained Teachers, Head Teachers, Children and parents.
		03 November, 2015	Meeting with Department of Education
			Meeting with a department dealing with urban slums in Karachi. Maybe, Sindh Katchi Abadies Authority or Karachi Building Control Authority
2	LRBT Karachi	04 November, 2015	Visit to LRBT, Meeting with team.
		05 November, 2015	Visit of two private schools to interact with beneficiaries including children, parents, teachers and head teachers
3	Rawalpindi	10 November, 2015	Visit of two government schools to interact with beneficiaries including children, parents, teachers and head teachers
4	Lahore	11 November, 2015	Meeting with Prof. Asad Aslam Khan at COAVS and team in afternoon.
		12 November, 2015	Visit of two Government Schools to interact with project beneficiaries including Trained Teachers, Head Teachers, Children and parents.
		13 November, 2015	Meeting with DSD team
			Meeting with Directorate General of Katchi Abadi, Lahore
5	Faisalabad	14 November, 2015	Meeting with Prof. Dr. Muhammad Sultan at Allied Hospital, Faisalabad.
			Visit of two Government Schools to interact with beneficiaries
6	Islamabad	18 November, 2015	Consultation meeting with partners at Sightsavers Country Office, Islamabad
7	Islamabad	20 November, 2015	De-briefing session with Sightsavers Country Office, Islamabad.
8	Islamabad	Week of 16 November 2015	Meetings to be arranged with Brien Holden Vision Institute and Fred Hollows Foundation

Appendix 7 – Status of MTR recommendations

MTR Recommendations		Actions taken	
1.	 The programme should now focus on consolidating the gains made in the first 3 years rather than expand, and the targets and outputs for school screening and low vision devices should be revised. Specific actions may also include: a. The pre-school screening activity can be replaced with screening of school-aged out of school children b. Orientation of opticians as an activity should be stopped c. Periodic refresher training be provided to teachers on vision screening and child eye health and hygiene d. Head teacher and school teacher orientation is an important component that needs to be reinforced so as to improve spectacle compliance rates and acceptance and inclusion amongst other school children 	Th tra a. b. c. d.	e targets were revised and the project focussed on refresher ining of teachers. This action was not accepted by Sightsavers and therefore not implemented This activity was stopped and not pursued any further Refresher training was instituted – 8,551 teachers were trained in the post-MTR period 2014-15. Of these, 3,256 teachers were those who received refresher training This was implemented and incorporated in the refresher training and first time trainings
2.	 The programme should engage with DSD and cascade teacher training in school eye health through its chain. This may done at the following levels: a. DSD – to develop appropriate learning materials, modules and training of MTs, and incorporate vision screening and child eye health and hygiene in teacher training programmes b. DTSCs – vision screening and child eye health and hygiene module for TE/TT to train DTEs c. CTSCs – vision screening and child eye health and hygiene module for DTEs to train PSTs 	а. b. c.	While engagement was undertaken with DSD at the operational level, there was no specific evidence of learning materials or modules developed on vision screening and child eye health and hygiene as part of any curricular change. There was a brief mention of vision screening in an inclusive education module developed from another project This was a successful collaboration at operational level with active participation and involvement of DTSCs, TE/TT and DTEs While vision screening was undertaken in collaboration with CTSCs, there was no specific module developed for DTEs
3.	 Social Organizers need to engage with the communities further and identify pockets in which children are particularly vulnerable and marginalized. Identification and prioritization of vulnerable communities may be done as follows: a. A more formal process (e.g. ranking or scoring method) should be employed to identify future project sites in slum areas b. Proxy indicators and pre and post KAP studies should be incorporated as measures of community awareness of child 	a. b.	This was initiated by the Country Office but owing to process delays within the organisation, it could not be pursued further This was not pursued further as it was not considered feasible within the remaining life of the project

eye health	
 4. Child eye health promotion and hygiene needs to be firmly embedded in the programme. It may achieve this as follows: a. Lady Health Workers should be trained in child eye health promotion for disseminating child eye health and hygiene messages b. The screening teams need to engage with SMCs/PTAs and CBOs to build their capacities in child eye health awareness for the long term c. School teachers should observe and detect any children in their class for any obvious eye defect or problem d. Vision screening should be carried out for children only in classes 1, 5 and 8 – and this should be repeated each year for the new intake e. A child eye health and hygiene manual should be made available to all teachers so that they disseminate these messages as part of their regular classroom teaching 	 a. The Evaluators did not interview any LHWs nor did they see any material used by LHWs for disseminating child eye health and hygiene messages b. There was little interaction with SMCs/PTAs or with local CBOs. However, there were examples of interaction by partners with local welfare organisations (by LRBT in Karachi) to visit and screen children studying in their schools c. The refresher training emphasised this during the training d. There were practical limitations to this as the head teachers refused screening of selected classes as they were worried about discrimination complaints by parents e. This manual could not be produced as it required policy level engagement with DSD who is responsible for any curricular change
A dedicated counsellor at the partner hospitals would be a useful	This could not be implemented due to financial reasons
resource to ensure follow-up of referral cases and motivation of parents	
and families	
 The value chain of school screening, supply of spectacles and student compliance rates needs to be streamlined to ensure more efficient programme delivery. This may include the following actions: The school screening data sheet should disaggregate between vision and non-vision cases screened by teachers to determine specificity and sensitivity The appointed optician vendor and the optometrist in the screening team should meet periodically to discuss prescriptions and spectacle dispensing to help streamline the supply chain and improve quality Action research may be conducted to determine the merits, programmatic implications and effectiveness of ready made to custom made spectacles in schools 	 a. This was implemented and disaggregated data reporting was available b. These meetings were pursued and considered useful for improving quality c. While it was not feasible to undertake any specific action research, Sightsavers conducted an internal monitoring review on spectacle compliance
2. The partners need to place special emphasis on advocacy and institutionalizing the programme through provincial government	a. Dissemination and advocacy meetings and events held by COAVS and PCB Cell - these facilitated development of

 support in the remaining two years to ensure sustainability and long term impact. They may achieve this through the following actions: a. COAVS and PCB Cell to hold dissemination and advocacy meetings with officials from health, education, social welfare, planning and finance departments as a precursor to develop project proposals on school screening for funding by provincial government b. Determined efforts should be made to engage with the curriculum wing of education department, LHWs programme, health policy unit and health sector reforms programme, social welfare department, education coalition and education NGOs in programme districts, UNESCO and UNICEF provincial offices to raise the profile of child eye health as part of broader school health and ongoing initiatives c. LRBT to engage with Sindh government for incorporating school screening component d. Consideration be given for LRBT to cover government schools in designated slum areas around their two base hospitals in Karachi and Lahore 	 provincial eye health proposals that incorporate role of optometrists at rural health centres (in Punjab province) b. This was not implemented c. This is in process in collaboration with PCB Cell d. This is in process in collaboration with PCB Cell
 There is need to introduce and institutionalise a quality improvement process for the programme components. These may need to include the following areas: a. Programme activities should be reviewed so that they comply with Sightsavers benchmarks and standards for Refractive Errors b. Screening teams should be brought to a central location and provided hands-on orientation in a field setting on standard screening and refraction methodologies to use c. LQAS quality assurance should be instituted to ensure quality and range of spectacles and prescriptions d. Standard training manuals need to be developed for the five areas identified as vital for quality assurance (community awareness about child eye health, vision screening by teachers, refraction by screening team, dispensing of spectacles and child eye health and hygiene) 	 a. Implemented and should be incorporated at the outset in future projects b. This could not be implemented – the stakeholder consultation workshop revealed that the screening teams were implementing variations of the screening methodology c. This was undertaken at partner level – such activities may require documentation in the future d. This could not be developed – as it requires a national consultation meeting under auspices of the National Eye Health Committee

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2.	 The overall programme planning and management process needs to be further streamlined to improve efficiency and strengthen partner capacities. Specific actions may include the following: a. Data from the programme needs to be analysed thoroughly to inform activities b. Sightsavers programme staff should meet quarterly with the screening teams at a central location for the teams to complete their reports on time and with the required information c. Sightsavers should incorporate capacity building of partner screening teams in soft skills required for the programme d. A retrospective baseline should be conducted for the programme to better evaluate impact at the end of the programme 	 a. An initial step was taken by Sightsavers by conducting an internal monitoring review of spectacle compliance b. While this was implemented, there were challenges in completing the reports during the meeting c. There was limited capacity building, which may be a requirement that is planned in future projects d. Owing to time and financial considerations, this could not be undertaken
3.	A joint programme review and learning meeting between leading eye care INGOs and implementing partners should be held to identify optimal programme approaches and how synergies for sustainability and scalability of school screening programmes	This is being planned for 2016 with the National Eye Health Committee

Appendix 8 – Consolidated Key Performance Indicators 2014-15

Indicators	KPIs 2014			KPIs 2015				KPIs 2014-15			
	G/F	B/M	Total	G/F	B/M	Total		G/F	B/M	Total	
Screening of children in Schools by Teachers (Class-I)	31,096	27,967	59,063	16,092	10,414	26,506		47,188	38,381	85,569	
Re-Screening of children in Schools (classes II to X)	104,961	89,077	194,038	60,463	32,380	92,843		165,424	121,457	286,881	
Screening of children in communities by Teams	25,414	15,984	41,398	17,101	9,614	26,715		42,515	25,598	68,113	
Total Screening	161,471	133,028	294,499	93,656	52,408	146,064		255,127	185,436	440,563	
Children Identified by Teachers in schools (Class-I)	1,796	1,189	2,985	1,016	811	1,827		2,812	2,000	4,812	
Children Identified in Schools (classes II to X)	8,136	5,162	13,298	4,884	3,000	7,884		13,020	8,162	21,182	
Children Identified in communities	3,655	1,991	5,646	2,116	1,897	4,013		5,771	3,888	9,659	
Total Children identified	13,587	8,342	21,929	8,016	5,708	13,724		21,603	14,050	35,653	
Children with common eye problems in Schools (Class-I)	376	298	674	443	348	791		819	646	1,465	
Children with common eye problems in Schools/CS (classes II to X)	830	658	1,488	720	638	1,358		1,550	1,296	2,846	
Children with common eye problems in communities	743	589	1,332	377	358	735		1,120	947	2,067	
Number of Refractions Performed in schools (Class-I)	367	354	721	256	234	490		623	588	1,211	
Number of Refractions Performed in Schools/CS (classes II to X)	6,356	3,777	10,133	2,924	1,271	4,195		9,280	5,048	14,328	
Number of Refractions Performed in communities	2,138	1,335	3,473	1,385	887	2,272		3,523	2,222	5,745	
Spectacles Dispensed for Children in schools	312	291	603	182	160	342		494	451	945	

(Class-I)									
Spectacles Dispensed for Children in Schools/ CS (classes II to X)	5,920	3,219	9,139	2,742	1,106	3,848	8,662	4,325	12,987
Spectacles Dispensed for Children in Communities	1,858	1,207	3,065	1,115	715	1,830	2,973	1,922	4,895
Total Spectacles dispensed	8,090	4,717	12,807	4,039	1,981	6,020	12,129	6,698	18,827
Children not provided with spectacles in schools (0.5D or less)	523	323	846	248	170	418	771	493	1,264
Number of False positives	3,025	1,757	4,782	2,189	2,213	4,402	5,214	3,970	9,184
Cataract identified in schools	28	26	54	7	26	33	35	52	87
Cataract identified in communities	14	14	28	1	2	3	15	16	31
Cataract identified from OPD	197	169	366	62	93	155	259	262	521
Total Cataract Identified	239	209	448	70	121	191	309	330	639
Squint identified in schools	111	128	239	85	53	138	196	181	377
Squints identified in communities	51	27	78	6	6	12	57	33	90
Squints identified from OPD	11	14	25	7	7	14	18	21	39
Total Squints Identified	173	169	342	98	66	164	271	235	506
Other Surgical cases identified from schools	23	15	38	7	3	10	30	18	48
Other Surgical cases identified from communities	14	16	30	2	3	5	16	19	35
Total other surgeries Identified	37	31	68	9	6	15	46	37	83
Total Identified	449	409	858	177	193	370	626	602	1,228
Cataract Surgeries Performed from schools	13	12	25	1	2	3	14	14	28
Cataract Surgeries Performed from communities	10	7	17	2	1	3	12	8	20
Cataract Surgeries Performed from OPD	214	175	389	80	125	205	294	300	594
Total Cataract Performed	237	194	431	83	128	211	320	322	642
Squint Surgeries Performed from schools	5	3	8	1	1	2	6	4	10
Squint Surgeries Performed from communities	3	1	4	-	-	-	3	1	4

15	12	27		15	9	24		30	21	51
23	16	39		16	10	26		39	26	65
5	5	10		4	2	6		9	7	16
8	24	32		2	3	5		10	27	37
13	29	42		6	5	11		19	34	53
273	239	512		105	143	248		378	382	760
1,139	914	2,053		789	644	1,433		1,928	1,558	3,486
591	491	1,082		402	323	725		993	814	1,807
2,665	944	3,609		1,398	288	1,686		4,063	1,232	5,295
1,090	819	1,909		997	350	1,347		2,087	1,169	3,256
92	53	145		45	29	74		137	82	219
8,737	4,250	12,987		3,899	1,678	5,577		12,636	5,928	18,564
472	343	815		277	162	439		749	505	1,254
	15 23 5 8 13 273 1,139 591 2,665 1,090 92 8,737 472	15 12 23 16 5 5 8 24 13 29 273 239 1,139 914 591 491 2,665 944 1,090 819 92 53 8,737 4,250 472 343	15 12 27 23 16 39 5 5 10 8 24 32 13 29 42 273 239 512 - - - 1,139 914 2,053 591 491 1,082 - - - 2,665 944 3,609 1,090 819 1,909 92 53 145 8,737 4,250 12,987 472 343 815	15 12 27 23 16 39 5 5 10 8 24 32 13 29 42 273 239 512 - - - 1,139 914 2,053 591 491 1,082 - - - 2,665 944 3,609 1,090 819 1,909 92 53 145 8,737 4,250 12,987 472 343 815	15 12 27 15 23 16 39 16 5 5 10 4 8 24 32 2 13 29 42 6 273 239 512 105 1,139 914 2,053 789 591 491 1,082 402 2,665 944 3,609 1,398 92 53 145 45 8,737 4,250 12,987 3,899 472 343 815 277	15 12 27 15 9 23 16 39 16 10 5 5 10 4 2 8 24 32 2 3 13 29 42 6 5 273 239 512 105 143 7 789 644 6 5 1,139 914 2,053 789 644 591 491 1,082 789 644 2 323 789 644 3 92 53 145 997 350 92 53 145 45 29 8,737 4,250 12,987 3,899 1,678 472 343 815 277 162	15 12 27 15 9 24 23 16 39 16 10 26 5 5 10 4 2 6 8 24 32 2 3 5 13 29 42 6 5 11 273 239 512 6 5 11 273 239 512 105 143 248 0 0 0 0 0 0 0 1,139 914 2,053 789 644 1,433 402 323 725 0 0 0 2,665 944 3,609 1,398 288 1,686 1,090 819 1,909 997 350 1,347 92 53 145 45 29 74 8,737 4,250 12,987 3,899 1,678 5,577 472 343 815 277 162 439	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	15 12 27 15 9 24 30 23 16 39 16 10 26 39 5 5 10 4 2 6 9 8 24 32 2 3 5 10 13 29 42 6 5 11 19 273 239 512 105 143 248 378 7 789 644 1,433 1,928 993 5 944 3,609 1,398 288 1,686 4,063 1,090 819 1,909 997 350 1,347 2,087 92 53 145 45 29 74 137 8,737 4,250 12,987 3,899 1,678 5,577 12,636 472 343 815 277 162 439 749	15 12 27 15 9 24 30 21 23 16 39 16 10 26 39 26 5 5 10 4 2 6 9 7 8 24 32 2 3 5 10 27 3 5 10 27 3 5 10 27 3 5 10 27 3 5 10 27 3 5 10 27 11 10

(Source: Sightsavers Pakistan Country Office)

Appendix 9 – Type of research activity by project partners

PCB Cell Karachi	Holy Family Hospital Rawalpindi
Pattern of eye diseases in children of age 0-16 in paediatric ophthalmology unit of LRBT hospital, Karachi	Afia Matloob Rana, Ali Raza, Waseem Akhter. Congenital Cataracts; Its Laterality and Association with Consanguinity. Pak J Ophthalmol 2014, Vol. 30 No. 4
Estimate the level of awareness of primary eye care among lady health workers of Union Council of Mangopir	Ambreen Gull, Ali Raza. Visual Screening and Refractive Errors among School Aged Children. Journal of Rawalpindi Medical College (JRMC); 2014;18(1):97-100
Assess the visual outcome of cataract surgery in children (aged 1-15 years) in Paediatric Ophthalmology Department of Civil Hospital Karachi	Qamar Farooq, Maria Waqas, Ali Raza. Refractive Errors Causing Amblyopia in Children. Journal of Rawalpindi Medical College (JRMC); 2014;18(2):254-256
Impact of Eye glasses on primary students in Government schools of Karachi	
Estimate the impact of primary eye care training conducted by PCB Programme Sindh on teachers working in government schools of Karachi	
Estimate the frequency of cataract blindness in children from age 0 to 15 in paediatric ophthalmology units, Al-Ibrahim Eye Hospital, PCB cell and LRBT Hospital Karachi	
Prevalence of refractive error in school going children	
(Source: Sightsavers Pakistan Country Office, PCB Cel	I Karachi, Holy Family Hospital Rawalpindi)

Appendix 10 – Terms of Reference

End Project Evaluation of Pakistan Urban Paediatric Eye Care Project Funded by SiB Phase 4

- 1. Background
- 1.1 Project name: Pakistan Urban Paediatric Eye Care (PUPEC) Programme
- 1.2 Project number: 75060
- 1.3 Project duration: January, 2011 December, 2015

1.4 Project budget: Total funding for this period is USD 1.2 million, with Seeing is Believing contributing nearly USD 1 million.

1.5 Project partners: Comprehensive Eye Care Cells (CEC Cells) of Sindh and Punjab and LRBT Eye Hospital in Karachi and Lahore

1.6 Key stakeholders: seven implementing partners' hospitals, department of education, beneficiaries and parents.

1.7 General information on project area:

The project was implemented in two provinces covering five metropolitan cities of Pakistan, namely, Karachi, Lahore, Faisalabad, Multan and Rawalpindi.

Goal, objectives and outputs of Project:

The overall aim of the project is to reduce the prevalence of avoidable blindness amongst children in urban slums through eye screening by trained school teachers. The project has provided identified students with relevant services like refraction, spectacles, surgeries, low vision devices (LVDs) and awareness regarding health and hygiene. The project has also made efforts to mobilize parents and communities through community sessions to cater to the screening needs of out of school children and raising eye health awareness.

Specific objective of the project are:

- To identify blind and low vision children within the 5 project cities
- To provide the required eye care services (surgeries, spectacles, low vision devices) to children identified during school eye health activities
- To increase eye health awareness in schools and adjacent communities
- To strengthen eye health systems through human resource development
- To establish effective programme management systems for efficient implementation of intervention.

Key outputs of the project were; Training of 15,000 school teachers in vision screening, Screening of 1,700,000 children in schools and communities, provision of refraction services and spectacles/Low Vision Devices (LVDs) to 50,500 children with Refractive Errors (REs), providing 2,000 children with surgical services,

reaching 45,000 people with IEC materials in 500 community awareness sessions and training of 200 local opticians.

In 2013, Mid-Term Review (MTR) of the project was conducted and targets are revised. The revised targets for remaining project life were;

Indicators	Project targets 2011-15	Achievements till MTR	Revised Targets	Total Achieved 2011-15
Training / Refreshers for Teachers	15,000	17,612	18,000	26,163
Screening	1,700,000	1,079,090	1,200,000	1,519,653 (This includes 1,232,772 screening and 286,881 re- screening)
Refractions	50,000	49,148	50,000	70,432
Spectacles	50,000	37,806	50,000	56,633
Surgeries	2,000	1,666	2,050	2,426
LVDs	5000	115	500	422
Community Sessions	500	428	550	647
Opticians Training	200	150	Activity suspended	Activity suspended

2. Project Approach:

Project teams were responsible for training selected school teachers in vision screening using three meter vision testing cards. These trained teachers would screen out all children in their schools to identify those with eye problems. Identified children were further examined and refracted by optometrists in the school setting. The children with refractive errors were provided with spectacles or LVDs and those with common eye problems were provided with ointments and eye drops. Complex cases were referred to the tertiary centers for further check up by ophthalmologists. Children identified from schools/ communities screening and deserving school aged children (children from poor families of the slums that are part of the project target area) identified from outpatient departments (OPD) were provided with surgeries. Project teams also organized community awareness sessions to raise awareness among parents and communities regarding child eye health and to identify out of school children with eye health problems.

LRBT were responsible for implementation of the project in private schools in Lahore and Karachi whereas CEC cells of Sindh and Punjab were responsible for implementation in Government Schools. CEC Cell Sindh implemented the project in the government school of Karachi. College of Ophthalmology and Allied Vision Sciences (COAVS), CEC Cell, Punjab implemented the project in Lahore, Rawalpindi, Faisalabad and Multan through Mayo Hospital, Benazir Bhutto Hospital, Allied Hospital and Nishtar Hospital respectively



Purpose of Evaluation

The purpose of this End Project Evaluation is to explore key successes, challenges and lessons learned to inform any childhood blindness program in future.

The evaluation seeks to verify the achievement of intended results and outputs described in the project proposal and in logical framework, and measure the extent to which PUPEC project has strengthened capacities of local implementing partners for combatting childhood blindness in Pakistan.

The evaluation will also assess the project achievements against agreed targets and objectives.

2.1 Evaluation criteria

Relevance

- How relevant is the project to the needs of the target beneficiaries, partners and development priorities of the country?
- How well is the project aligned and relevant to MDGs/SDGs, WHO global eye health action plan and national and provincial eye health plans?
- How has the project built on the existing childhood blindness control interventions implemented by other INGOs in the public and private sector?

Effectiveness

- How effective were the partnership arrangements in achieving the project outcomes?
- To what extent were the recommendations of MTR implemented and how did they enhance programme delivery?
- How effective was the project in generating demand including raising awareness, increasing uptake of paediatric eye care services and ensuring follow up of children with complicated eye problems that need regular and expert medical advice?
- How effective was the project in addressing gender equity in terms of provision of services?

Efficiency

 How efficiently has the project strengthened the existing systems and approaches for combating childhood blindness?

- How efficient was the project in building capacities of teachers to reach the maximum number of school children with eye health problems? Particularly, what were some of the challenges specific to screening all children as opposed to screening targeted year groups?
- How efficient was the screening tool (particularly its sensitivity and specificity) across the two provinces? (e.g. percentage of false positives and negatives)
- What are the key learnings for identifying children with low vision in schools and communities and providing low vision devices? What were the specific challenges?
- How has the re-screening for refractive errors and refresher trainings for teachers enhanced the overall project efficiency?
- How efficient was the follow up mechanism for strengthening the referral chain from school/communities to partner hospitals and how this has addressed the dropout rate of patients for both URE and surgical needs?

Impact

- To what extent has the intervention developed institutional capacities of local eye care partners in paediatric ophthalmology, and enhanced required community based outreach activities for combating childhood blindness in the target areas?
- To what extent has spectacle compliance in children improved as a result of the project?
- Was there any difference in access to both RE and surgical services for boys & girls? What were the challenges and how did the project seek to address them?
- What institutional changes did the project introduce at Directorate of Staff Development regarding teachers training in vision screening?
- What contribution has the project made in reducing the childhood cataract backlog/burden of disease? Is there any evidence of the projects impact on the lives of children in general and female children in particular?
- How did the project improve access to low vision services & aids? What was the low vision access for children post-surgery?
- How successful was the IEC strategy of the project for raising awareness of the communities in general and parents/families in particular around child eye health issues?

Sustainability

 What are the key factors that may contribute towards financial, programmatic and social sustainability of the programme beyond SiB IV? (e.g. post project operational expenditure, continuation of paediatric eye care and screening services, provision of spectacles, training of permanent HR/ teachers, CBL alignment with national / provincial eye health plan)

Scalability/replication

• To what extent does the project or its components appear scalable and replicable in other areas of Pakistan? What evidence exists to validate this?

Coherence/coordination

- Are the activities and outputs of the programme consistent with the overall goal?
- To what extent has coordination and collaboration among key stakeholders created synergies in achieving the overall project goal?

3. Review Team

The evaluation will be conducted by an external evaluator or evaluation team, selected through competitive proposal submission process. The lead evaluator will have as a minimum the following core competencies – public health specialist, projects/programme analysis, comprehensive understanding of broader issues that impact eye health, Human Resource Development for healthcare, international development issues including disability and gender. The lead evaluator should also demonstrate exceptional skills in understanding Health Systems Strengthening and school eye health programme approaches and experience in conducting medium sized evaluations.

4. Methodology

The review team should explain their approach and methodologies to be used to indicate how they will fulfil the requirements of the ToR in their Expression of Interest application. These may include qualitative and quantitative tools as appropriate to conduct this evaluation.

The evaluator/review team is responsible for developing the evaluation framework and methodology that addresses the key review questions. The evaluation team will define an appropriate sample size and specify to Sightsavers what mechanisms will be adopted to avoid selection bias. The evaluation should meet the principles of participation involving both male and female beneficiaries.

The following suggested methodology will be adopted for undertaking the evaluation:

- Initial briefing by Sightsavers Pakistan Country Office (PCO) team in PCO office, to include a briefing from the Country Director and Programme team.
- Meetings with key stakeholders of the project, including supervisors of the project at LRBT Karachi, Prevention and Control of Blindness (PCB) Cell Karachi, College of Ophthalmology & Allied Vision Sciences (COAVS), officials of Department of Education (DoE)/ Directorate of Staff Development, and school administrators.
- Focused group discussions with school teachers, students, parents, screening teams.
- Visits to:
 - Paediatric eye unit in the Mayo Hospital, Lahore
 - Paediatric eye unit at LRBT, Karachi
 - Paediatric eye unit at Civil Hospital, Karachi
 - Two government and two private schools in Lahore
 - Two government and two private schools in Rawalpindi/Faisalabad
 - Two government and two private schools in Karachi
 - Directorate of Staff Development, Lahore
 - Education Department, Karachi

5. Reference Material

- Project documents proposal, logframe, budget, annual reports.
- MOU with partners
- Mid Term Review (MTR) report of PUPEC and management response
- Sightsavers strategic plan (2009 2018)
- WHO global eye health action plan
- Pakistan national eye health plan
- EMRO school eye health screening guidelines
- Sightsavers Strategy Implementation Card (SIM) Card and the Change Themes
- Visit report of IAPB delegate
- Six Monthly Progress reports
- Query logs containing IAPB feedback on reports
- Reports of consultative project review workshops
- Seeing is Believing Phase 4 documents
- Other relevant documents

6. Timeframes

6.1 Expected number of days input by evaluator/evaluation team

The first draft report should be submitted to Sightsavers in Mid-December.

Phase	Activity	No of Days
Phase I – Desk study:	Desk research /literature Review	03 days
Review of documentation	Inception Report	03 days
Study	Revision of collection methods and tools based on inception report comments	02 days
Phase II: Field Data Collection	Field Visits & Data-collection	13 days
Phase III – Analysis and	Debriefing (In-country)	01 day
production of evaluation report	Data analysis and preparation of draft report	05 days
	Revision of draft report from feedback.	02 days
	Submission of final report	01 day
Total		30 days

7. Outputs/ Deliverables

The minimum expected outputs are -

- An Inception Report
- A draft Evaluation Report
- A final Evaluation Report
- Data sets (Excel or Word files) for all collected data (quantitative and qualitative) will be submitted together with or as part of the final evaluation report
- PowerPoint presentation summary, summarizing the key findings from the evaluation presented under the headings of the evaluation criteria submitted together with the final evaluation report

7.1 Inception Report

The inception report should be available to Sightsavers within five working days of project commencement. Feedback will be provided within seven days following acknowledged receipt of inception report.

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

7.2 Draft Report

A draft report should be submitted to Sightsavers within five working days after completion of the field activities. Sightsavers will provide feedback on the draft version to the evaluation team within 3 weeks after receiving the draft report.

7.3 Final Report

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

7.4 Data Sets

The evaluation team will be expected to submit complete data sets (in Access/ Excel/Word) of all the quantitative data as well as the original transcribed qualitative data gathered during the exercise. These data sets should be provided at the time of submission of the final report.

7.5 Summary Findings

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

8. Reporting Format

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

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

9. Administrative/Logistical support

9.1 Budget

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

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

Sightsavers usually cover the above costs, unless otherwise stated.

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

9.2 schedule of payment

The following payment schedule will be adhered to:

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

9.3 mode of payment

As agreed by Sightsavers and the consultant.

Appendix 11 – Evaluation Criteria Rating

	Excellent	There is strong evidence that the project <i>fully meets all or almost</i>
		<i>meets all aspects</i> of the evaluation criterion under consideration.
		The findings indicate excellent and exemplary
G		achievement/progress/attainment.
		This is a reference for highly effective practice and an Action Plan
		for positive learning should be formulated.
	Satisfactory	There is strong evidence that the project <i>mostly meets</i> the
		aspects of the evaluation criterion under consideration. The
		situation is considered satisfactory, but there is room for some
		improvements. There is need for a management response to
GA		address the issues which are not met.
		An Action Plan for adjustments should be formulated to address
		any issues. Evaluation findings are potentially a reference for
		effective practice.
	Attention	There is strong evidence that the project only partially meets the
		aspects of the evaluation criterion under consideration. There
		are issues which need to be addressed and improvements are
A		necessary under this criterion.
		Adaptation or redesign may be required and a clear Action Plan
		needs to be formulated.
	Caution	There is strong evidence that the project does not meet the main
		aspects of the evaluation criterion under review. There
		are significant issues which need to be addressed under this
		criterion.
AR		
		Adaptation or redesign is required and a strong and clear Action
		Plan needs to be formulated. Evaluation findings are a reference
		for learning from failure.
	Problematic	There is strong evidence that the project does not meet the
		evaluation criterion under consideration and is performing very
		poorly. There are serious deficiencies in the project under this
R		criterion.
		There is need for a strong and clear management reasons to
		address these issues. Evaluation findings are definitely a
		aduress mese issues. Evaluation information are definitely a
	Not	There is not sufficient suidenee to rote the project against the
	NUL	riterien under consideration
	Sumcient	chienon under consideration.
INE	Evidence	The project people to equipuply address the inchility to provide
		i ne project needs to seriously address the inability to provide
		evidence for this evaluation criterion.