









SCHOOL EYE HEALTH SERVICES

OF

KHAIRUN NISA EYE HOSPITAL

PILOT PROJECT REPORT

July - October, 2019

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1. PERSPECTIVE

School Eye Health Services

School health services are services from medical, teaching and other professionals applied in or out of school to improve the health and well-being of children, their families and community at large. The focus on eye health is by default a focus of Khairun-nisa Eye Hospital, hence **School Eye Health Services.** At this juncture our focus is on eye health only, but we earnestly hope to expand the scope to other areas of health in school going children like, hearing, height and weight, nutrition, oral and dental hygiene etc.

These services have been developed in different ways around the globe but the fundamentals are constant: the early detection, correction, prevention or amelioration of disease, disability and abuse from which school aged children can suffer.

Khairun-nisa Eye Hospital

Located at 49/4, Dr.Tharani Road, Jamshed Town, Karachi-74800, **Khairunisa Eye Hospital** (www.knneh.pk) is a **not-for-profit** entity created and funded by **K&N's Foundation**. It is committed to provide **quality eye care for the visually impaired in Pakistan**. It is being managed by Vision Trust (www.visiontrust.pk).

One of our key objectives is to assess and remove barriers for access and availability of quality eyecare to the underprivileged by;

- Sparing no effort to create and maintain internationally recognised standards of services at Khairunisa Eye Hospital and making it accessible to all regardless of their paying capacity, colour cast or creed.
- 2. Initiating School Eye Health Services, under the banner of Community Outreach Initiatives with a focus on screening for visual impairment, and provision of free eyecare to school children in the underprivileged areas.
- 3. Address the **UNSDG**s¹, and **UNCRC**² and **UNCRPD**³ concerns related to eye health.
- 4. Future Aspirations
 - Creating a state of the art purpose built tertiary care facility. Seek affiliations with domestic and International Universities, to pursue much needed human resource development objectives.
 - ii. **Advocacy on visual impairment** for policy makers and striving to promote legislations in all these regards.

¹ United Nations Sustainable Development Goals

² United Nations Convention on the Rights of Child

³ United Nations Convention on the Rights of People with Disabilities

The Citizen Foundation (TCF)

The Citizen Foundation (TCF) is one of Pakistan's leading non-profit organizations in the field of education for the less privileged. The Foundation, as of date, operates a network of 1,567 school units, educating 252,000 students through 12,000 teachers and principals, with over 17,400 employees in the country.

The Confluence of Interests between Khairun-nisa Eye Hospital and The Citizen Foundation

Khairun-nisa Eye Hospital offered to provide the services of installing, conducting eye care program and follow-up, on **Free of Cost basis to TCF.**

Kick-Start Funding

Dr. Zahoor Ahmad Makhdoom, a prominent gastroenterologist practicing in Carbondale, Illinois, US and his wife Mrs. Sumera Makhdoom, provided the initial start up funding for the project.

Pilot Project of Khairun-nisa Eye Hospital with The Citizen Foundation (TCF)

The management of **Khairunisa Eye Hospital** and **The Citizen Foundation** had an introductory meeting about the significance of school eye health services during **March 2019**. As a result of which, The Citizen Foundation agreed to let us begin our activities on two of their schools as pilot project located in Gadap Area of Karachi named as TCF Saiful Goth.

This report comprises of the progress and achievements of our pilot project activities.

After sharing the results of this pilot project, we would request TCF to develop a partnership with us by signing an MOU/ a Service Contract for a comprehensive project titled 'School Eye Health Services". The duration, scope and other details of the project mutually be decided. We would like to provide this service on **Free of Cost** basis to TCF as its humble contribution towards the nation building efforts.

2. OBJECTIVES OF THE PROJECT

- 2.1. **Spreading Eye Health Awareness by** educating the local communities. This could thereby help bring about lasting social change and improve/ promote health awareness in the society in general.
- 2.2. Act in compliance with the United Nations SDGs⁴ and UNCRC⁵, and CRPD.⁶
- 2.3. **Creating Workforce**; create a workforce consisting of;
 - 2.3.1. Trained/ Certified school teachers as Screeners and Master Trainers,

⁴ 17 Sustainable Development Goals of United Nations.

⁵ United Nations Convention on the Rights of Child.

⁶ Convention on the rights of People with Disabilities

2.3.2. Motivate and train senior/ active students, check and certify them as **Eye-scouts.**

This **workforce** of trained trainers, screeners and eye scouts would in turn, not only help us identify visually impaired classmates. They would also be able to screen their friends and families and thus catalyze a positive social and developmental change in society and therefore contribute in making the world better.

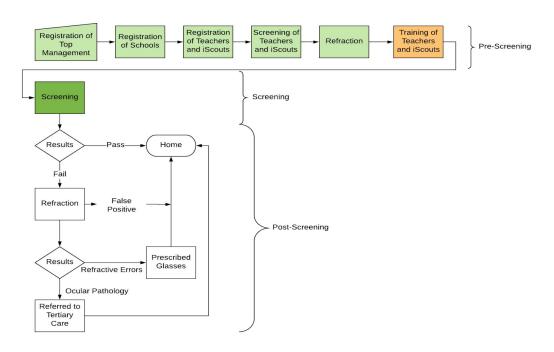
- 2.4. **Screening School Children**; for presence or absence of any Visual Impairment.⁷ This is the core activity and results would be achieved through an **inhouse supervised activity** conducted by **trained and certified class teacher** (trained as screeners) assisted by **Eye-scouts.**
- 2.5. **On Site Secondary Care**: To assess the type and severity ⁸ of this impairment in screened children by providing an on-site facility of testing, prescribing and dispensing glasses.
- 2.6. **Identify and refer children found in need of tertiary care**, and to assist in the provision of required services, at nearby Secondary and/ or Tertiary Eye Care Facility.
- 2.7. Follow up and re-evaluation;
 - 2.7.1. We envision an ongoing, continuous and self-sustainable model where we intend empowering, installing and equipping the schools we visit to thereafter become self sufficient and independent. We wish to stir in this way a movement meant to self perpetuate, in a form of living legacy that we leave behind and not a once in a life time and forgotten event. We sincerely hope to be able to advocate this mechanism as essential part of the policy in all TCF schools and taking lead from TCF, other organisations may light up their own and similar candles.
 - 2.7.2. The need for re-evaluation/ change in glasses in children, and addressing the change is required as often and as frequent as the change in their clothing and shoe sizes. It is therefore an imperative for any school eye health services to devise a mechanism for followup at least once a year if not (ideally) every 6 months.
- 2.8. **Creation and maintenance of an Electronic Database;** This database can provide;
 - 2.8.1. A repository of data for research on future projects of community eye health.
 - 2.8.2. A basis on which to develop and advocate effective eye health care policies and programs to government and non government organizations.

⁷ Visual impairment: A condition in which the affected individual is not able to see well or is not normal.

⁸ IAPB classifies the visual impairment into Mild, Moderate, Severe and Blindness, four categories with its different prevalence figures.

2.8.3. A **Network** on which to build upon, other and related general health programs as add-ons, such as hearing tests, issues of oral hygiene, height and weight, nutrition programs and stunted growths etc etc.

3. STRATEGY



Project Flow diagram

4. PROJECT ACTIVITIES AND PROGRESS:

4.1. First Phase (Apr - June, Q2 2019) Project Planning

During the first phase of the project (Apr - June), we successfully completed project documentation, that mainly included project concept note, working guidelines, training module, project **Information**, **Education and Communication** (IEC) material and data collection forms.

We successfully hired management team for effective project planning included program manager, database manager, event resource manager and accounts and finance consultants

The program manager; Mrs Fatima Zehra ⁹ joined the program in mid April. Her work attributes are aligned with International Agency for the Prevention of Blindness' guidelines. She is medically trained as an optometrist with program management skills and experience.

⁹ Fatima Zehra: Masters in Project Management.

During the first phase of the project, she provided assistance to the program director ¹⁰ in the formulation of project documentation and training module. She was also engaged in giving her inputs to database and portal teams in the initial phase of designing. Continuous reviews and feedback were given on a regular basis.

The database Manager; Imtiaz Ali Ansari ¹¹ joined the project in the month of June, 2019. He is a senior data analyst and has sound working experience as an independent Information Technology (IT) consultant. Subject matter (IT) expert, Imran Raees ¹² was consulted at an early stage of database designing which was essential to avoid technical errors in future.

The **Accounts and Finance** aspect is looked after by Mr. Shabbir Almani¹³ and Mr. Sarmad Waseem ¹⁴

During the reporting period, Initial designing phase of database got almost completed which included its tables, structure and security matters.

The event resource manager, Ali Rehan¹⁵ joined the project in April and started working on online training portal exclusively for school eye health program. This online interactive learning portal will help expanding our teaching and training potential as we engage with increasing number of schools, teachers and Eye-scouts. The content and presentation is almost in its final stages of deployment. We plan to have this teaching and training available in local languages too to increased compliance.

Continuous reviews and feedback was given on portal and database by the program manager and program director. Relevant project requirements were shared. The data management software would cater the whole data of top management, schools, teachers, students and relevant activities, while the portal would have the training module and be managing the whole process of online training including registration, lectures, relevant quizzes, certification etc.

4.2. Second Phase (July - Sept, Q3 2019) Training, screening and certification

In this phase, we conducted two sessions to train teachers and eye-scouts as 'screeners.' These sessions were conducted on 5th September, 2019, at TCF school, Saiful Goth.

It was a day long exercise conducted twice on the same day and venue. One for the morning and one for the afternoon sections. Each session started with awareness and motivation part addressed by Dr. Mazhar Awan for about half an hour and was followed

¹⁵ Ali Rehan: MBA in progress, EResourceCenter.com.pk Event Manager

¹⁰ Dr. Muhammad Mazhar Awan: CMO - Khairunisa Eye Hospital

¹¹ Muhammad Imtiaz,: BS (Petroman), MBA (Management Information System), 14 years experience, last assignment as Senior Business Analyst, Microsoft Dynamics.

¹² Syed Imran Rais: Director & CTO, iST Corporate Performance Consultants (Pvt.) Ltd.

¹³ Shabbir Almani: MCom, LLB, 15 years experience as manager accounts and Audit.

¹⁴ Sarmad Wsseem: ACCA, CIA, Bsc

¹⁵ Ali D. L. AADA

by theoretical and practical training of participants by Mrs. Fatima Zehra. The total duration of each session of training was about one hour and 30 minutes

Total **36 teachers** were trained and certified as "screeners" in two schools named KFC Secondary and Yousuf Rehmani Primary at Saiful Goth. Out of these 36 teachers, 20 were nominated as 'master trainers'.

67 eye-scouts were trained, certified and decorated with iScout badges. Their main function is to assist the teacher in their screening activities. Overall trainees were **103**.

The central theme was to prepare a work force of screeners and master trainers, enabling them to conduct eyesight screening of children as well as to train other teachers and people around to screen children for presence or absence of weak eye-sight.

The student volunteers were named **Eye-Scouts** and were distributed badges, to put on and feel proud of it. We distributed all the required material resources in the form of **visual screening kits** to all the teachers and eye-scouts. The kit contained everything that may be needed to perform the visual screening.

First and foremost; We then proceeded to check in detail the eyesight of the team we prepared to make sure their own eyesight was good enough in the first place! and for this we had taken along necessary equipment and trained staff. Total **7** teachers and **30 e**ye scouts were examined in total. Out of total examinations, 11 people were provided with spectacles including one support staff.

Paperwork and related forms were filled out on the spot as well as given to teachers to have them completed enabling us to go for the second phase of our program, the detailed eye-sight testing and prescription of glasses to those found in need.

The trained teachers and eye-scouts were requested to conduct the screening on their own, collect data on the given forms, and help us identify those with decreased vision.

On behalf of the parents or guardians a consent was required to be signed by teachers.

Project team kept in contact with area manager, Amir Abbasi and school Principals/Teachers to address their queries during screening activities and kept following the progress on a regular basis.

4.3. Third Phase (October, 2019) The core activity.

As per program, trained teachers performed screening of students in their respective classes during school timings along with other academic activities. Screeners were assisted by **Eye-scouts**. Teachers filled the data manually in forms provided by project team. During screening, project team was in contact with area manager and school principals to address queries in time and help running screening activities smoothly.

During the first week of October-2019, trained teachers and Eye-scouts completed their screening activities in both schools (KFC Secondary and Yousuf Rehmani Primary School - both morning and afternoon shifts). Project team collected the data from school, created digital entries and analyzed it for the next stage of refraction (eye examinations by our trained ophthalmic technicians).

Screening results; A total of 790 students (384 girls and 406 boys) were screened by trained teachers. **138** students (17.4%) were identified to be "Visually Impaired." 652 students having 'Normal Vision'. Students found with visual impairment were referred for the next, refraction phase to be done on-site and by qualified/ trained optometrist (Eye care personnel).

44 students among the Visually Impaired were already wearing glasses, and were not seeing normal even with their eyeglasses on, meaning whereby that due re-evaluation and change of glasses was in neglect.

4.4. Fourth Phase Refraction/ Eye examination of screened/ identified student;

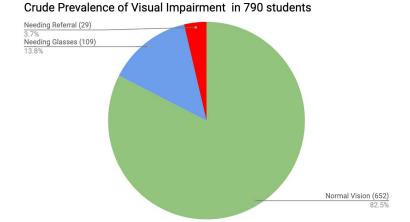
After evaluating screening data received from teachers, project team planned the refraction phase on 3rd October, 2019. The area manager and school principals were informed of our visit beforehand. **Project team reached at the project location** at around 10 am and started preparations for eye examinations. Trained eye care personnel performed eye examinations of all the identified students, teachers, parents and siblings and other staff members.

Total **859 people** were screened for refractive errors and other eye problems in two schools, named KFC Campus Secondary and Yousuf Rehmani Primary School. Out of total screened people, **790 were students**, **33 parents and siblings**, **20 teachers** and **15 were other staff and relatives of the teachers**.

Trained Optometrists found **150** as visually impaired **106** students were prescribed eye glasses, **3** students had minor numbers and kept on follow-up.

5. RESULTS

Total Number of children screened	Found Visually Impaired including those who were already wearing glasses but found visually impaired		
790	138 (17.4 %)		
	109 (13.7 %)	29 (3.6 %)	
	Found Visually Impaired and provided 103 new glasses on site. 6 were advised to continue	Identified as ones in need of specialized care at secondary and tertiary level	



6. KEY ACHIEVEMENTS:

- 6.1. Successful hiring of management team.
- 6.2. All phases of the pilot project completed. <u>https://drive.google.com/open?id=1a6ldJPDOH31KmvtHvW8CnBXzHAIFOmYB</u>
- 6.3. The data is being subjected to statistical analysis and initial crude results are being shared in this report.
- 6.4. Awareness on School Eye Health Services was raised at broader level through media, https://voutu.be/BII-J96 kuA
- 6.5. Online Training module finalized recorded, edited and are being organised and being uploaded/ undergoing test runs.
- 6.6. Database management System undergoing test runs.

7. CHALLENGES FACED DURING PILOT PROJECT AND MANAGEMENT PLANS;

No	Challenge	Plan to overcome
1	Difficulty in meeting the deadlines and delays.	Constitute full timed management team. A team which provides productivity for limited period of time on a 5 day working period is less than half of what a full timed team can deliver in a much shorter period. A full timed staff could have delivered the amount of work in one fourth of the time frame.
2	In-adequate office space	Seek opportunities and resources
3	In-accurate and manual filling of the data input form and multiple errors in digitizing, making it tedious and labour intensive and fraught with multiple errors.	Develop means of direct digital input of data at the primary input level by identifying and arranging cheap, multiple and handy tablets/ small low end laptops. The arrangements for a temporary local area

		networking is also part of the suggestions. IT experts are being consulted on this issue.
4	The TCF schools lack adequate computer setups. The IT labs were either not available, not functional or IT human resource was not handy.	TCF shall be urged to focus on developing this very important aspect and requirement of the day and age coined as the age of information. An effective computerized database at the school level can make everybody's life and work lot more easier.
5	Out of 253 students 114 were false positive. Meaning they were identified to be Visually Impaired by the screeners, though they were normal.	Though it is better to have false positives, in the initial screening stage rather then having false negatives. The training however needs to be improved to improve the results.
6	Only 2 out of 29 referrals reached Khairunisa Eye Hospital. In other words, as of moment, 27 students are attending classes with decreased vision who are in need of specialised care, and stand deprived.	 Following options need to be considered Provision of conveyance to and fro to the hospital on a hired vehicle. Making arrangements in the nearest eye care facility. Organising outpost consultation facility via mobile eye clinic staffed with an ophthalmologist having at least one years

8. ADDITIONAL BENEFITS

- 8.1. 103 new glasses were dispensed to students
- 8.2. 15 new glasses were dispensed to teachers
- 8.3. 30 parents, 5 siblings, 14 workers and their relatives were tested in addition to the assigned task of serving the students with Visual impairment.
- 8.4. Eye health related posters and literature in the form of pamphlets, in urdu and english was distributed among students and staff, with a hope to disseminate awareness.

9. CONCLUDING REMARK OF THE TEAM

Our overall experience was heartwarming, spiritually rewarding and we are totally impressed by the level of cooperation, interest, and fervour shown by staff as well as students. We earnestly hope to be able to take this project onwards to reach out to, more and more of such, underprivileged but gifted children, our own children.

EOD
