

# End Line Report

## Project: Building Gender Equitable Eye Health Systems in Barishal Division, Bangladesh



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## ACRONYMS

AOP	Association of Optometrists
BNSB	Bangladesh National Society for the Blind
CSOM	Cataract Surgery Outcome Monitoring System
DCR	Dacryocystorhinostomy
DEEF	Design Effect
FGD	Focus Group Discussion
FHF	Fred Hollows Foundation
GoB	Government of Bangladesh
HH	Household
IIEI&H	Ispahani Islamia Eye Institute & Hospital
KAP	Knowledge, Attitude, and Practice
KII	Key Informant's Interview
LGRD	Local Government & Rural Development (Ministry)
MA	Medical Assistant
MDG	Millennium Development Goal
MIS	Management Information system
MO	Medical Officer
NHF	Nizam-Hasina Foundation
NGO	Non-Government Organization
OPD	Out-Patient Department
PEC	Primary Eye Care
PPP	Public Private Partnerships
RE	Refractive Error
SACMO	Sub-Assistant Community Medical Officers
SBMC	Sher-e-Bangla Medical College
SDG	Sustainable Development Goals
SiB	Seeing is Believing
SICS	Small Incision Cataract Surgery
SPSS	Statistical Package for the Social Sciences
ToR	Terms of Reference
UHC	Universal Health Coverage
URE	Uncorrected Refractive Error

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We would like to acknowledge and express our gratitude to **Dr. Zareen Khair**, Country Manager, The Fred Hollows Foundation (FHF) for her magnificent support and contributions at all the stages of the project, starting from tool finalization to report finalization.

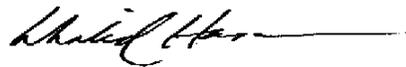
We would also like to acknowledge Md. Nurul Alom Siddikqe – Project Officer, The Fred Hollows Foundation (FHF) for his support in carrying out this project, especially on the ground networking with the partner organizations in 6 districts of Barishal division. He also contributed in finalizing the tools.

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I am proud to thank the ResInt research and field operations teams for their sincere efforts for making this research project great.

Finally, we are grateful to all the respondents and stakeholders living in Barishal district for providing with all the valuable information, in absence of which we would not be able to be here today with this informative report. Special thanks to them!

We aim to ensure The Fred Hollows Foundation (FHF) and their team that this report stays relevant in its use of data, analysis and evidence-based success stories that correspond to the needs of your work, from decision-making to implementation, across the development landscape.



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## EXECUTIVE SUMMARY

The Fred Hollows Foundation (FHF), through Standard Chartered Bank's flagship project 'Seeing is Believing' – SiB has implemented the 'Building Gender Equitable Eye Health Systems in Barishal Division' project with the objective to bring down gender disparity in eye care, especially cataract services through a health systems improvement approach.

The overall goal of the project was to reduce cases of blindness in people at risk of vision loss by creating awareness and strengthening the existing health system. The project aimed to increase access to and utilization of quality eye care services in the most underserved communities of Barishal Division through the implementation of gender sensitive programming approaches.

Since the project's life cycle will end this year (end of 2019), FHF decided to conduct an end-line survey to understand project reach, success, sustainability, lessons learned etc. There were two components, (1) a KAP study to understand the knowledge, attitudes and practices toward eye care from the target population and (2) an end-line evaluation of overall project activities, to determine the extent to which intended outcomes were met and to understand what worked well. A previously conducted baseline survey provided information on pre-project condition, and acted as a comparative resource to offer insight into the effects of the project's intervention in the region.

Major outcome indicators were assessed through both quantitative survey and qualitative engagements among different segments of the beneficiaries and stakeholders. Quantitative findings were further drilled down through focus group discussions and in-depth interviews. A sample survey was conducted with a size of 840 respondents. Focus group discussions with community members (both males and females) and in-depth interviews with service providers, relevant stakeholders and project staff added insight to survey findings. The data was collected from all six districts of Barishal division.

At the beginning of the Project in 2016, it was observed that only 42% of the women had access to eye care services but by the end of 2019, this had increased to 56%. This increase can be attributed to the phenomenal gender strategy interventions; including gender friendly sensitization workshop(s) for service providers as well as government hospital administrators, separate queue lines for women at OPDs, separate waiting and post-operative rooms, nursing corners and most importantly focused & structured communication campaigns at the community level.

As per the FHF MIS data, 1,786 surgeries were conducted by NGO Partners in the first half of 2016; of which 931 (52%) were male and 855 (48%) were female patients. Subsequently, by project end in Dec 2019, it was found that among the 25,000 cataract surgeries conducted, 14,051 (56.2%) were women and 10,949 (43.8%) were men.

The total number of patients screened through outreach camps was 375,088, among which 156,713 (42%) were male 218,375 (58%) were female. Data from government hospitals reflected that out of 109,333, patients screened at district hospitals, 48,990 (44.8%) were male 60,343 (55.2%) were female. A visible majority of female patients served at hospitals & clinics meant that social stigma and barriers to access for the marginalized gender group were effectively being torn down to make way for inclusive & progressive healthcare.

Similar trends could also be seen in the school screening program. In total 41,207 students were screened between 2016 & 2019, of which 19,514 (47.4%) were boys and 21,693 (52.6%) were girls; spectacles were provided to 2,338 (39%) male students and 3,662 (61%) female students. The screening programs empowered children to take an active interest in eye care and they would soon become invaluable advocates to reach the hearts and minds of family members in their respective households.

During the inception of the project a capacity needs analysis found that most eye units at Government district hospitals were non-functioning, as there was an absence of adequate ophthalmologists or nurses; even though there were ophthalmologists present in some of the district/tertiary hospitals, surgeries were not conducted due to shortage of resources or sufficient training of team members. Therefore, the Foundation advocated extensively with the government, namely the Director General of Health Services and the Civil Surgeon of the respective districts for deployment of ophthalmologists in the vacant positions and lobbied for the allocation of resources to continue providing much needed services.

As a result, public hospitals were soon provisioned with resources and began conducting cataract surgeries in earnest. By the end of the project, public hospitals conducted 3,731 cataract surgeries, of which 1,854 (49.8%) were male and 1,877 (50.2%) were female patients. Moreover, the Foundation took a leading role in advocating with the government to make 25 sub-district level vision centers functional.

Finally, significant efforts were made on part of FHF to try and secure the sustainability of the SiB program so that the good work done over these 3 years would not come to an end due to lack of foresight or ethical governance. For instance, a Steering Committee was formed at the municipal government level which supports project management and coordination among public and private partners and helps implement advocacy strategy. Buy in from local government is an invaluable asset to sustaining the spirit and intentions behind this project; allocating resources, facilitating communication and expediting the minutiae of red tape are all boons of this strategic accomplishment.

Another laudable but significant accomplishment was the training of Pharmacists within various pockets in the region. 500 pharmacies located around the eye care facilities were given eye care orientation and were provided with communication material; pharmacists were informed not to provide any diabetic medicines off the shelves but to refer patients to qualified doctors at the eye care centers. Interestingly, it was found that there were a large number of referral cases of patients from Pharmacies, not only for DR care but also for other diseases of an ocular nature. Activation at a grassroots level such as trusted pharmaceutical vendors can ensure that community members, once apprehensive or uninformed could understand the need, urgency and ease of access to consult professional help for their eye care needs.

As the report presents, the project has, since inception, made significant progress at a regional level in advocating and increasing the access to affordable, quality eye health care, irrespective of gender or sociocultural norms within marginalized communities; on the supply side, FHF was able to ensure adequate resources by way of ophthalmologists, nurses, technicians in effectively outfitted healthcare facilities run by both the government and NGO partners.

The success of this project is a testament to the Foundation's ingenuity, the selfless commitment to improve service accessibility & quality by NGO, public & private partners and the timely delivery of providence for thousands of marginalized members of the community; it has shown them that they have as much of a right to hope to see a better future for themselves, as anyone else does.

## SUMMARY OF FINDINGS

### STUDY FINDINGS – KNOWLEDGE, ATTITUDE AND PRACTICE (KAP)

The findings of the KAP segment were prepared based on the data collected through a sample survey. This part of the survey quantified respondent's knowledge, attitude and practice on eye health care among the most marginalized/indigenous population. The marginalized occupational groups (e.g. fishermen, cobblers etc.) were mostly located in the southern belt of the Barisal Division (Perojpur, Pnatkhali, Barguna districts). A majority of respondents were from ethnic, indigenous, *Dalit* (untouchable) groups of Hindu communities, and marginalized women groups who were found to have had better knowledge about different eye related complications, compared to the baseline survey. If we compare the level of awareness and practice of different issues and indicators related to eye care complications, it clearly shows the incremental changes between the baseline and end-line studies. It may be mentioned here that the mid-term study was conducted to understand whether the project was going on as per Theory of Change. The final evaluation (end-line) was an in-depth analysis of the project which was aimed to explore "what worked well and the underlying reasons."

It is evident from the **mid-term** survey that due to project intervention, the optimum level of awareness among the general population had reached up to 89% for cataract and 82% for RE. This survey also showed a slight increase of 92% and 83% for awareness of Cataract and Refractive Error, respectively. On the other hand, the awareness of cataract and refractive error among the marginalized and ethnic/indigenous were found to be 76% and 73% respectively. The qualitative findings through FGDs, IDIs and case studies also showed that the intervention was able to create positive awareness among the majority of the beneficiaries about the importance of eye care services and encouraged them to visit different health facilities for treatment.

It was also evident from FGDs and case studies that the intervention was able to create higher levels of awareness among different disadvantaged groups such as marginalized women group, ethnic communities and disparaged professionals. Beneficiaries from these groups availed eye care services without any difference as such in their distribution.

Overall, the knowledge (awareness), attitude (behavior) and practice (availing services) of the beneficiaries was found to have increased manifold (compared between the baseline and end-line surveys) and thereby was able to achieve the project deliverables. Communication interventions through SBCC materials such as billboard, leaflet, miking etc. contributed significantly towards creating the required behavioral changes. It may be mentioned here that the BCC vehicles such as billboards were appropriately designed showing the picture of ethnic groups and in their language and included tribal chief(s) for community awareness. In addition, the mosques and churches were used in communicating to the people. The priests delivered sermon after Sunday prayers and distributed the leaflets, and similarly, the Imam of mosques announced about the eye camps and outreach centers in Friday prayers (known as *Jumma*).

### GENDER SENSITIVE INTERVENTION

Though Bangladesh has undergone profound social changes, many of which have impacted gender inequality, there was significant improvement in minimizing the male-female gaps in many of the MDG indicators; however, even amidst these success stories where laudable progress had been made,

challenges still remained. Many of the improved gender indicators masked significant economic disparities. Poor women still lacked adequate access to health services in Bangladesh and the Barishal division was no exception, specifically regarding eye care services. The FHF intervention was able to visibly reduce gaps between males and females availing the eye care services. Awareness and practice levels increased, attitudes changed. The findings clearly showcased areas where the intervention worked well and why.

**Attitude towards Eye Health Problem and Care:** Several questions were asked to understand if **gender inequality** existed in case of adopting eye health care treatment. The responses suggest that males and females were getting similar importance in this regard. For instance, more than 90% of the respondents, both males and females, viewed that the same level of dedication and care would be provided to them, irrespective of gender, if they were taken to the hospital; they believed that if they both suffered from the same eye health problem, they would be given similar priority to avail treatment, be taken to the same service center and also, that the same amount of money would be spent for treatment for both of them.

Following data from end line study shows that the respondents (both females and males) believed that there is no gender preference in availing or delivering the services.

Any gender preference?	Response	%
If a male and a female member have same eye problem, how were they taken to hospital?	Both without delay	93.9
If a male and a female member have same eye problem, did both of them get the priority?	Same	94.4
If a male and a female member have same eye problem, which facilities where they were taken?	Both to equal quality	94.9

**Gender inequality in other activities and decision-making issues:** It is evident from the study that there are some areas where inequality exists. Though the female members receive similar opportunities (like their male counterparts) in different areas such as education (99%), health care facility (90%), service/job (90%), etc. there were still areas where females were deprived; examples were that females had less access participating in the family decision making process (45.1%), in local government activities (42.1%), ownership of property (17.5%) and free movement outside the family (14.6%) as compared to males.

However, almost all of the respondents (98%) viewed that females needed to be attended by males to get proper treatment from the health facilities; where a substantial majority of the respondents (63%) opined that social norms inhibited women from visiting health facilities alone. However, 16% of the respondents felt that it was safe for a woman to visit health facilities without any companion. Most of the respondents (92%) claimed that health facilities were providing the required privacy to female patients.

According to a majority of the women interviewed during focus group discussions –

*“Apparently it (data) shows that men and women have the same level of rights and opportunities in life – whether in careers, raising children or issues of treatment, but in reality, the women are deprived in all these areas of life.”*

## KNOWLEDGE AND AWARENESS ABOUT CATARACT AND REFRACTION ERROR

In general, the respondents were able to identify various eye problems with almost all of the respondents mentioning that if eye problems were not treated on time, people would suffer from blindness (99.4%). While probing their understanding, most of the respondents (97.4%) mentioned some eye problems could be prevented and all respondents mentioned that curative care was available.

Respondents were further probed about cataract problem and 89% of them were found to be aware of symptoms that may manifest due to cataract. Around 60% of the aware respondents mentioned that there is a “curtain/screen inside the eyes” (Bengali saying/proverb) which is a symptom of cataract. Other mentionable symptoms cited by them were dimness of vision (24%), suffering from white pupillary reflex (23%) and blurred vision (17%). Most of them (90%) opined that surgery could cure cataract. When asked to know the sources of awareness, a majority of them mentioned neighbors (78%), family members (74%) and relatives (70%). It was also found that 99% of the responded learned about cataract problem through outreach camps

It was evident from the survey, FGDs and MIS data that there was an increase in both the awareness and practice (visiting the facilities for treatment) of respondents, between the mid-term report and end-line survey. Awareness and knowledge among the general population for cataract and refractive error was found to be 92% and 83% respectively, compared to 89% and 82% found during the mid-term evaluation. The optimum level of awareness among the general population had reached 88% for cataract and 82% for RE (found in MTR). As per the FHF MIS data, 83,264 adult patients were screened in government eye facilities at district and tertiary levels. However, it seems that the children flowing into these facilities numbered at only 2,312. Thus, extensive community awareness is needed to increase participation and easy access for children for RE.

## EYE CAMP AND CASCADE TRAINING: SOURCES OF AWARENESS

Knowledge about the **eye care camp** was found among 6 in 10 respondents and most of the aware respondents (89%) had visited the eye care camp. Miking (mentioned by 96% of the respondents) emerges as the main source of awareness of the eye camp. Other sources such as family members (67%), neighbors (66%) and relatives (58%) were cited by more or less a similar proportion of the respondents. Counselling and eye check-up are two main activities undertaken at the eye camp as mentioned by 9 in 10 respondents who had visited.

Additionally, participants in the focus group discussions (FGDs) mentioned that miking was commonly used for community communication by the government and NGOs, both in rural and urban areas, which made it quite effective.

According to an NGO stakeholder -

*“For general communication campaign, it is found in different research reports that miking and leaflets are less costly compared to different programs in TV or developing folk drama. Folk drama may be more effective because of its story and contents (songs, humour, acting, messages etc.), may attract more audience, but is definitely more expensive. Similarly, TV serials or soap operas are immensely popular but expensive as well.”*

62% of the respondents claimed to have knowledge about **cascade training**. Most of the aware respondents (90%) cited miking as the main source of awareness about the meeting followed by family

members (82%); two other major sources as mentioned by the respondents were relatives (72%) and neighbors (76%). Likewise, in the eye camps, a vast majority of the aware respondents (84%) attended cascade training and most of these respondents (94%) observed that eye counselling was conducted in the meeting followed by eye check-up (76%).

## PRACTICE AND EXPERIENCE ON EYE HEALTH SERVICES

The **incidence of cataract surgery** by respondents themselves or of a family member of their respective families was found among 15% of the respondents; about 90% of these respondents revealed that patients were keen to solve the issue, so they agreed to operate. Besides, willingness of household head (64%), availability of money (57%) and hope for curing (50%) were other major factors that encouraged patients to pursue cataract surgery.

**Decision Making:** In a majority of the cases (44%), the respondents themselves took decision about treatment of the ailing member of their respective families followed by discussing with spouse (30%) and parents (11%).

**Facilities:** Respondents seemed to prefer visiting public health centers over private as about two thirds of respondents (63%) visited public health centers to uptake eye health care services. On the other hand, 34% of the respondents visited private health centers. A vast majority of the respondents (79%) managed treatment cost from overall family income; managing money from one's own income and savings to make up treatment costs were found among 33% of the respondents.

## OVERALL PERCEPTION ABOUT THE QUALITY OF HEALTH FACILITIES

The respondents were asked to rate service quality of the health facilities they had visited based on a 5-point scale where 1 being "very bad" and 5 being "very good" from their perception. The question was asked to both the groups of respondents who visited partner hospitals (Nizam-Hasina or Islamia Eye Hospital) and other health centers. In both cases, mean score was found to be 4 meaning the services offered by the health facilities were good. The respondents mentioned a number of reasons for their high ratings such as timely service, affordable cost, good behavior of the providers, etc. They also rated the services of the health facilities as 4 (i.e. good services). In addition, 90% of the beneficiaries mentioned that they would refer these service centers for eye health care treatment to acquaintances.

## STUDY FINDINGS - END LINE EVALUATION

The project activities were designed to create awareness, to access and utilize quality services and to provide sustainable and accessible eye care services in Barishal division. In addition, the focal points of these activities were women and underserved communities.

The project conducted a baseline KAP study in 2016 prior to formulating implementation activities. The objective of the survey was to find out awareness, barriers and availability of existing eye health care services in the project locations. Subsequently, the collected data was used to analyze the status of gender equality. Based on the analysis, the project identified several barriers that impeded women and marginalized communities especially, in availing eye health care services. These barriers were: **sociocultural** (women had less access to information, were not allowed to travel alone, were negligent, etc.), **access** (lack of outreach services, lack of skilled service providers, etc.), **socio-economic & infrastructural** (financial constraints, dependency on male members for treatment cost, lack of privacy in

the facilities) and **lack of SBCC services** (poor knowledge of cataract, community leaders were not aware of the consequences of eye health problem, women were not empowered with eye care related information and services etc.).

The project executed its implementing activities in selected sub-districts (upzillas) targeting entire communities; work with children and teachers especially, was executed through the school screening program. Additionally, the project targeted some specific groups of people such as persons with disabilities, transgender individuals, female pottery workers, etc. to execute its deliverables.

### 3-WAY APPROACH

The project adopted a 3-way approach to reach the above-mentioned targeted beneficiaries. These were: outdoor activities, creating gender friendly environment and SBCC activities. A short description of each activity and their performances are given below:

#### Outdoor Activities

**Eye Camp:** The project established eye camps in remote areas through its private partners in order to provide eye care services to marginalized communities. Prior to the scheduled date of operations, project staff organized awareness campaigns in order to increase participation (especially among the female population) and promote service uptake. In addition, school screening programs among school students were organized in conjunction with the private partners.

**Cascade Training:** The project organized cascade training for community members. In the training sessions, gender sensitive eye care messages were delivered along with eye counselling. The findings show that 63% percent of the respondents reported that they knew about cascade training; of them, 84% mentioned that they had attended cascade training, and a further, 90% of the aware respondents mentioned that the main activities of cascade training were discussions about eye problem, examinations and treatment.

**Referral System:** The Referral system was an effective scheme in promoting the eye care services among the beneficiaries. According to various research projects (ResInt 2018, 2019), pharmacists generally play a significant role in such systems. In most of cases, the patients, especially in rural areas and among the lower to middle income segments in urban areas and suburbs, visited pharmacies for services or referrals. The ResInt researchers had in-depth interviews with the pharmacists and validated the information that they generally referred to eye care specialists and/or hospitals, available in their localities.

It was observed in this study that the women visited nearby pharmacies or general practitioners to seek treatment for eye related complications, though they were not skilled enough to diagnose and provide appropriate treatment. The project staff and partner NGO health workers organized eye camps, outreach events and courtyard meetings; there were also training sessions for the pharmacists and health providers at different hospitals.

It should be mentioned here that FHF, as a part of the SiB Project and the Diabetic Retinopathy (DR) Project (funded by The Queen Elizabeth Diamond Jubilee Trust), provided training to many pharmacists between 2015 and 2019. In the Diabetic Retinopathy project, one of the interventions was to provide orientation and basic training to Pharmacists as they were found to be the first point of contact for people suffering from diabetes. Thus, 500 pharmacies located around the eye care facilities were given eye care

orientation and were provided with communication material; pharmacists were informed not to provide any diabetic medicines off the shelves but to refer patients to qualified doctors at the eye care centers. Interestingly, it was found that there were a large number of referral cases of patients from Pharmacies, not only for DR care but also for other eye care diseases.

*"I am in this business for about 15 years, as a licensed pharmacist. I have received a lot of training on health, nutrition and eye problems. The patients come to me for treatment and medicine. For eye related issues, since it is sensitive, I normally refer them to qualified doctors (ophthalmologist), practicing in my locality. Sometimes, I refer them to district hospitals. I have a connection with them."*

*In-depth interview with Abdus Sobhan\*, age 41, Pharmacist, Borguna  
(\* real name changed to protect privacy of individual)*

**Organizing Training sessions:** The project had developed training modules based on basic eye care and gender equitable service delivery. Participants in the training sessions included Ophthalmologists, Medical Officers, Sub Assistant Community Medical Officers (SACMO) and service providers from NGO partners.

12 ophthalmologists were trained on SICS though 7 were targeted in PIP and provided with on-the-job training on cataract surgery and best practices in surgical management, surgical quality assurance and post-operative care. 35 nurses from government and non-government partner hospitals were trained on OT management and gender equitable service delivery. Short term and refresher training (on the job) were provided to 213 MO/SACMO/MA from partner hospitals on basic eye health, screening assessment, OPD management and gender equitable service delivery.

The project organized training sessions with data entry operators to equip them with proper MIS knowledge. These operators were given special gender training to assist female patients inside the outpatient department. To operate equipment efficiently, the project provided adequate training to staff members as well as providing screening training to the UHCs staff.

Additionally, the project motivated health workers and staff of different facilities to visit communities and interact with female beneficiaries in order to create awareness of eye health care.

### **Creating Gender Friendly Environment**

The Project supported renovations to partner hospitals to develop a gender friendly environment for the patients. Nursing corner, separate seating arrangement for male-female and breast-feeding corner had been established in district hospitals and in one medical college. This space was also used by aged female patients to rest before and after performing cataract surgery. Separate post-operative wards had been allocated for women by hospital administration. Electronic token system was introduced in the public hospitals to avoid pushing female patients out of queue (by male patients). A system had been developed that enabled doctors to see female and male patients alternatively. The facilities assigned a gender focal person to provide additional support for female beneficiaries. The partner NGOs had also assigned a paramedic as a gender focal person in their respective facilities.

### **Social and Behavior Change Communication (SBCC) Activities**

The Project developed some innovative measures to mitigate sociocultural barriers. One of these measures was executing social and behavior change communication (SBCC). The project team prepared

interactive materials such as billboards, message boards etc. that incorporate messages on eye care for women, importance of early cataract surgery in women, to be used by the health workers and volunteers in clinics or communities. The project also developed interpersonal communication (IPC) materials for workshops, meetings, seminars and community awareness sessions for males, family members, community members, women groups (microcredit group or vulnerable women groups of LGRD), and community volunteers.

The project developed communication activities and materials for men and family leaders who are key decision makers in a household. Since men often have better access to a family's financial resources and make the financial decisions, advocacy and counselling were administered directly at them; the husband, if the woman was married, or an eldest son, if the woman was widowed. The project reached out directly to these audiences with attractive campaigns that encouraged their participation to take better care of elderly women.

### CHILDREN AND SCHOOL SCREENING INITIATIVES

The school screening program was perceived as one of the positive drivers in marking the success of the project. It was evident from the qualitative research that the school students played a significant role as **advocators** in their families. They became educated and knowledgeable on the importance of eye care, especially to their mothers and elderly community members. They helped and inspired their parents to go for regular eye checkups and attend eye camps and outreach centers. According to government statistics, there are approximately 75 million children (0-18 yrs.) in Bangladesh. Refractive error is the major cause of childhood visual impairment in Bangladesh. It is a serious barrier to children's development and directly results in a decrease in attendance at school. Early detection and treatment of refractive error through glasses, contact lenses or surgery is important to ensure a child's normal development and permit enhanced performance of children. Thankfully, the project was able to screen a large number of students through their school screening program. According to the MIS report, 41,207 students were screened in 4 years and 6,000 students found with URE were provisioned with spectacles.

### STEERING COMMITTEE

Besides the above-mentioned approaches, another exemplary and effective initiative of the project was to form a Divisional Steering Committee and District Steering Committees. The main agendas of these committees were to support project management and coordination among public and private partners and to help implementation of advocacy strategy. These committees strengthen the eye health system by building horizontal communication and cooperation between private and public health institutions and also build leadership and governance within the health system. The committees took initiatives to track project updates and also, to share innovative gender strategy that each partner had tried. They also advocated the deployment of an eye consultant in Barishal Sadar Hospital to replace the retired eye consultant who had worked there previously. The committees ensured local government involvement beyond the project life and also, supervised different gender sensitive initiatives taken by the government hospital, partner hospitals and other health centers.

Considering the recommendation of the Divisional Steering Committee, the project had established two district level steering committees in Jhalokathi and Patuakhali. It is expected that these committees will continue their activities after end of the project life cycle and implementing advocacy strategies such as turnover of trained government service providers, motivation for well-performing doctors and the capacity of hospitals to conduct more surgeries in future.

## SUSTAINABILITY

This project has shown great promise in changing the lives of millions of people, especially in the lower income and marginalized communities – more specifically for women. The question of sustainability arose during discussions (FGDs and in-depth interviews) with the beneficiaries, stakeholders and program staff. All of them suggested the need for the continuity of the intervention; FHF and the donors may consider this issue. The project rolled out various initiatives, the effects of which will hopefully sustain, long after the end of project life cycle. These initiatives include:

1. Communication messages and innovative approaches that the project executed has changed attitudes and practices of community members especially women towards accessing eye health services.
2. The initiative of organizing eye camp in the remote areas has increased awareness of and urgency to uptake eye health care service among participants from marginalized communities.
3. Building up the capacity of government hospitals to provide cataract surgeries will help ensure adequate health services to patients in the immediate future.
4. Introducing referral system between pharmacies and nearby hospitals will contribute to prompt women to up take eye care treatment from hospitals.
5. Providing post-operative instructions for Cataract patients and their family members.
6. Eye camp for school going children is a practice that shall help create awareness & necessity of eye health care from an early age

## PROJECT ACHIEVEMENT

The project ensured gender friendly environment in facilities, organized eye camp in remote areas in order to provide eye care services to marginalized communities, developing and administering communication campaign in the areas which were easily and frequently accessed by women etc. As a result, the number of patients who sought eye treatment in the eye camp and facilities had increased exponentially. The data of project MIS report shows that the number of total eye screenings through NGO partnership was 3,75,000 & in public Hospital was 106,001 (11% more than the targeted number), total RE prescriptions were 76,542 (36% more than the targeted number) and total cataracts through NGO partnership was 25,000 and 3,731 (37% more than the targeted number) at public hospitals; almost all achievements had well passed the respective targeted numbers an entire year ahead of the project's lifetime.

Total of Project Period		
Male	Female	Total
10,949	14,051	<b>25,000</b>
1,854	1,877	<b>3,731</b>
12,803	15,928	<b>28,731</b>

The VE analysis shows that before surgery 56% of the patients fell in “near blindness” category and 44% of the patients in “low vision” category however, after surgery, 93% of these patients fell in “normal” or “near normal” category.

The end line survey data shows:

- Awareness of the probability of suffering from blindness if treatment is not taken on time was found to be universal
- 100% of the respondents were aware that curative care is available

- Most of the female respondents (89%) were aware of cataract and refraction errors (72.9%)
- 90% of the respondents were satisfied with services provided at facilities

All of the above-mentioned statistics demonstrate that the project achieved remarkable success in terms of meeting up its targets.

### SUMMARY TABLES: BASELINE VS END LINE SURVEYS

The following summary table shows the incremental changes of major progress indicators, observed between the two studies:

Comparison between Baseline, Midterm and End term level of awareness					
Progress Indicators	Indicators	Baseline	Mid-term	End-line	Compared with Baseline
<i>Measure the progress, outcome and the achievement of the project in terms of expected results</i>					
Building awareness in terms of knowledge of symptom and treatment	Cataract	16.5	88.7**	92.4**	Increased
	Refractive Error	56.6	81.7	83.4**	Increased
	Glaucoma	1.1	3.8	16.9**	Increased
	Chronic Dacryocystitis	14.3	36.3**	35.1**	Increased
	Corneal Scarring	-	7.4	14.9**	Increased
Knowledge of eye problem	Refractive Error	56.6	60.9	76.2**	Increased
	Cataract	16.3	47.7**	72.9**	Increased
Knowledge about preventative measures against blindness	If eye problem not treated in time you might go blind	45	99**	99.4**	Increased
	Some eye problem can be prevented	37	85**	97.4**	Increased
	Curative care is available	33	82**	100**	Increased
Knowledge of eye camp	Awareness	17	77**	99**	Increased
	Activities	11	65**	89**	Increased
<i>Cataract treatment services and refractive error</i>					
Knowledge about measures of treatment	Cataract	42	86**	86**	Increased
	Refractive error	66	75	75**	Increased
<i>Aware of Eye Service Providers and Eye Camp</i>					
Aware of any eye service providers			94.3	98.6	Increased from MTR

Aware of eye camp			22.9	60.4**	Increased from MTR
Attended eye camp (those aware)			65.7	88.8**	Increased from MTR

*\*\*Significant at 95% level of confidence*

*However, among the marginalized, ethnic and indigenous groups the awareness for cataract and RE is 76% and 73%*

## CONCLUSION

**Awareness and Demand Creation:** The FHF intervention has had a remarkably high degree of success in creating awareness and demand of eye care health services. At the onset of FHF intervention, awareness and demand of eye care health services were relatively low. Given the socio-economic background of the population of this division and lack of adequate initiatives from private and public sectors, it is quite understandable that the level of awareness and demand were low, especially among women. Through project interventions, FHF created a strong awareness-based foundation for these communities by delivering knowledge on eye health issues and their basic rights to participate in availing healthcare. This awareness and subsequent demand creation were possible through implementing social and behavior change communication (SBCC) campaign among all the beneficiaries and stakeholders.

**Gender Sensitive Intervention:** One of the major success areas is that the project was able to create a gender sensitive environment at the service centers. Most importantly, the beneficiaries, both males and females could understand the importance of reducing the gender inequality gap.

**Sustainability:** To sustain and strengthen the project outcomes, further collaboration with related complementary service providers would help bring in holistic changes. The scalability of the program across the country needs **financial continuity**. In addition to engage donor support, the program may consider private sector support and funding as well. There are many large private companies in Bangladesh (from financial, telecom, manufacturing, industrial etc.) looking for great ideas to fund from their CSR (corporate social responsibility) funds.

**Social Mobilization Model:** Gender inequality is a social problem. Reducing the gender inequality and enhancing the participation of women in eye care services were some genuine outcomes that this intervention was able to demonstrate. SiB is now graduating from concept to a successful project. Steps should be taken to make it a **model** and thereby sharing this among other NGOs and donors that have similar objectives. The project can be scaled up in other areas and across the country and turned into a social movement where the SiB model could become a vehicle toward expanding eye care services for all, irrespective of gender, religion and age. It could effectively transform social and family “burdens” (due to blindness) into easily preventable solutions and victories (emotional empowerment through awareness & renewed hope through access to affordable healthcare).

# CHAPTER 1

## INTRODUCTION

The Fred Hollows Foundation, Bangladesh has been implementing a four-year project titled ‘Building Gender Equitable Eye Health Systems in Barishal Division’ from January 2016 – December 2019. This project is funded by Seeing is Believing (SiB) – a flagship community investment program of Standard Chartered Bank, which provides funding to address avoidable blindness and promote quality eye health care services. It has been working successfully to eliminate avoidable blindness in Bangladesh through health systems strengthening and setting up sustainable eye care programs through Public Private Partnerships (PPP). The Foundation aims to strengthen the local health infrastructure, develop human resources, improve access to, and affordability of eye health care services for the rural population, raise awareness of and build support for eye health programs in Bangladesh. Its work focuses on vulnerable and marginalized population such as the indigenous communities and poor women.

Gender equitable distribution is improving in the areas of educational attainment, health and survival, economic participation and political empowerment. However, even in those areas where progress has been made, challenges and disparity still exist. Gender disparity is still a common phenomenon in Bangladesh. The social structure is dominated by patriarchal values and characters to a large extent. Poorer to mid-income women still lack adequate access to reproductive health, and enrollment in higher education is low, compared to their male counterparts. Women employment levels remain low, even in terms of their role, payment rate etc. (Khan 2008).

Like other divisions in Bangladesh, Barishal is no different; unfortunately, due to gender gaps in the society, a smaller number of women in this division are economically active which hinders taking major decisions independently and defending their basic rights. It is a common social norm for the women to be escorted by a husband or another female or someone else when seeking health services. It does not only make her dependent but also increases the cost of her health seeking behavior and practices.

The project aimed to increase access to and utilization of quality, sustainable and accessible eye care services in the most underserved communities of Barishal Division through the implementation of gender sensitive programming approaches. The project also included several operational research components that have contributed to the evidence base for prevention of vision loss due to diabetes, the results of which were aimed to inform stakeholders at different levels to collaboratively advocate for future replication and scaling-up of the project.

### *The Fred Hollows Foundation*

*The Fred Hollows Foundation is a secular non-profit public health organization based in Australia which was founded in 1992 by an eminent eye surgeon Professor Fred Hollows. The Foundation focuses on treatment and prevention of avoidable blindness caused by Cataract, Trachoma, Diabetic Retinopathy, Refractive Error and other diseases. As of today, it operates in more than 20 countries across Australia, The Pacific, South and South East Asia, and Africa. In 2013, The Foundation was named The Australian Charity of the Year 2013 in the inaugural Australian Charity Awards.*

**Prevalence of blindness and related complications:** In 2013, FHF conducted a blindness survey in two separate clusters of three districts (each) in Barishal Division. According to this study, the rate of prevalence of blindness (above 50 years) was (a) 2.9% in the Bhola, Barguna, Jhalokati cluster and (b) 3.5%

in the Barishal, Patuakhali, Pirojpur cluster. The percentage of blindness caused by **cataract** in each of these clusters was 91.5% and 85.2%<sup>1</sup> respectively. The rate of severe **visual impairment** (both eyes) was 6.6%/6.4%, and moderate visual impairment was 13.2%/10.8% respectively. The main causes of visual impairment were untreated cataract (87%-94%) and refractive error (4%-10%). The prevalence of cataract victims in Barishal Division was 3.8/4.3% for VA< 3/60; 10.0/9.8% for VA< 6/60, and 14.0/16.1% for VA< 6/18. The cataract surgical coverage (CSC) rate was 46/48% in eyes with visual impairment and 22/59% in blinded eyes; additionally in women, these rates were significantly lower (up to 24% lower for females). In Barishal Division, it is estimated that a total of 55,524 people, with best corrected bilateral VA< 6/60 due to cataract, required surgery and that 68% of them were women. Among the people who had received cataract surgery, 9.7/11.5% had poor outcomes within their respective clusters.

FHF conducted another preliminary study - Knowledge Attitude & Practice (KAP) in 2013 and found that the main barriers for accessing eye health care services in the catchment areas were lack of *need* felt for a surgery, high cost of surgery, and lack of awareness about treatment options. Further, a KAP study and gender analysis was planned by this project to assess how these barriers affected women and girls in Barishal. The project eventually addressed these barriers.

**Availability of qualified professionals in Barishal:** Only 16 of Bangladesh's 900 ophthalmologists are based in Barishal Division serving a population of 8.2 million people. This leaves a gap of 150 ophthalmologists in the catchment area (Reference: Vision 2020 recommendations<sup>2</sup>). Although cataract causes 79.6% of blindness, it is estimated that only half of Bangladesh's ophthalmologists are able to perform cataract surgery<sup>3</sup>. The ratio and distribution of mid-level ophthalmic personnel (MLOP) is equally inadequate in Barishal, with only 32 eye care workers (nurses/medical assistants) based in the catchment area (as opposed to 350 as recommended by V2020<sup>4</sup>). Barishal Division has the lowest Cataract Surgical Rate (CSR) in the country with only 538 surgeries performed per 1 million population, as opposed to 957 per million at the national level.<sup>5</sup>

Eye units at the district hospitals are mostly non-functioning due to inadequate human resources, ophthalmic equipment, supplies and maintenance resources. There is one district hospital located at the secondary level in each of the six districts and one medical college & hospital at the tertiary level. In addition to these, there are few local NGOs who cater to local eye care needs. The main NGOs are Ispahani Islamia Eye Institute & Hospital (IIEI&H), Nizam-Hasina Foundation (NHF), Grameen G.C Eye Hospital, Barishal Diabetic Hospital, Patuakhali BNSB, Patuakhali Eye Hospitals and Dip Eye Hospital.

The project was implemented through four government district hospitals, one government divisional hospital, and two NGOs namely IIEI&H and NHF, which are located in Barishal and Bhola districts

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<sup>1</sup> Blindness Survey in Barishal Division titled "Rapid Assessment of Avoidable Blindness (RAAB) in Barishal Division of Bangladesh", 2013, Child Sight Foundation, The Fred Hollows Foundation

<sup>2</sup> According to the Vision 2020 recommendations the standard ratio of ophthalmologist to population should be one Ophthalmologist per 50000 people by 2020. Hence, Barishal division having a population of 8325666 should have 166.5 (8325666/ 50000).

<sup>3</sup> "Strategy for National Eye Care for Vision 2020 in Bangladesh", Dr A.M. Zakir Hussain, Dhaka, August 2014

<sup>4</sup> According to Vision 2020 recommendations.

<sup>5</sup> "Strategy for National Eye Care for Vision 2020 in Bangladesh", Dr A.M. Zakir Hussain, Dhaka, August 2014

respectively. This project partnered mainly with government hospitals. It also worked collaboratively with NGOs to achieve project objectives.

### 1.1 STUDY OBJECTIVES

The purpose of the KAP (end-line) evaluation project was to measure whether and to what extent the program that had been established, was progressively, over time, successful in optimizing the use of limited resources to improve eye healthcare services to communities in remote areas.

The objectives of the end-line were to:

1. Assess whether there are observable changes to knowledge, attitudes and practice related to eye care and gender barriers to accessing health service, among community members, and service providers, and whether these can be attributed to the project.
2. Assess the effectiveness; reach of the IEC strategies (includes awareness raising and mass media campaigns).

### 1.2 INFORMATION COVERAGE

The KAP (end line) study considered the existing indicator framework, desired outcomes and baseline KAP findings; however, it focused on the following information areas and the issues related to:



• Status of the health-seeking behavior of women with a focus on cataract as well as accessibility, availability, affordability, and acceptability behind the low uptake of eye care services.

• The efficiency, impact, sustainability, timeliness of implementation etc.

• Assessment based on and comparison with a baseline survey with sector-specific disaggregated data, clear objectives and measurable indicators.

• Quality of project activities i.e. KAP building, social & behavior change communication (SBCC) which would be covered through progress monitoring.

• Efficacy of communication campaigns, school screening, cascade training, and gender strategy.

- Project progress against gender indicators and a gender-focused patient satisfaction survey.

### 1.3 STUDY LIMITATION

The study was designed specifically to understand the services of gender equitable eye health systems. Interestingly, majority of the people are aware of eye health care and were willing to respond. However, there were some non-responses, because many of the respondents were either traveling or occupied with business issues. All these non-responses (around 5%) were addressed by frequent visits to a greater number of respondents to reach the final estimated sample size. It can be assured that the findings are representative and well addressed so that proper and adequate decisions can be taken without any hesitation.

## CHAPTER 2

### OVERALL ACTIVITIES OF FRED HOLLOWES FOUNDATION (2016 – 19)

The Fred Hollows Foundation (FHF), a non-profit organization based in Australia, was founded in 1992 by an eminent eye surgeon Professor Fred Hollows. The Foundation focuses on treatment and prevention of avoidable blindness and it also tackles other causes of blindness including trachoma and refractive error particularly for extreme poor, women and indigenous people. FHF works in more than 25 countries of the world including Bangladesh. The Foundation is also helps to tackle other causes of blindness by working with government and other partners – NGOs in particular to implement the government’s National Eye Care Plan since 2007.

As a part of this plan, FHF has been implementing Standard Chartered Bank’s flagship project ‘Seeing is Believing’ in Bangladesh, titled ‘Building Gender Equitable Eye Health Systems in Barishal Division’ for a period of four years (from January 2016 to December 2019). Through this project, the foundation will be able to integrate eye health services in a better way particularly for women at the community level in Bangladesh.

To understand the main challenges or gaps from a gender perspective, the project carried out a gender analysis along with Knowledge Attitude and Practice (KAP) Survey on 2016 on Eye Health Services in all 6 districts of Barishal Division and based on the findings from gender analysis and KAP survey the SiB project developed an Innovative Gender Strategy document in January 2017 where developing a Gender Social and Behavior Change Communication (SBCC) strategy for the project was identified as an immediate step to address all gender perspectives and minimize the gender related barriers to create an enabling & inclusive environment where all girls between 15-19 years and women above the age of 40 would get opportunities to improve their eye care adoption behaviors and actively seek out positive eye care practices. This Gender SBCC Strategy of SiB project was a working document, and was updated based on best innovative gender strategies, lessons learned, best practices as well as risks and challenges established from time to time, during the whole project period.

Moreover, lack of awareness, illiteracy and unfavorable socio-economic conditions in Barishal division made end users living in villages/rural areas vulnerable to the adverse effects of eye problems. Hence, there was a dire need to develop a sustainable and effective mechanism for gender focused Social & Behavioral Change Communication strategies to change the mind sets of community people and as a whole, improve their eye care adoption behaviors and practices. The initiative employed an integrated gender based SBCC strategy comprising intensive stakeholder participation including the local communities, social mobilization, capacity building, awareness building, undertaking needed advocacy initiatives, and culturally appropriate social behavior change communication interventions strategies.

Gender-focused patient satisfaction surveys were designed and conducted in the five district partner hospitals. The survey report shows that in most of the hospitals, women had less patient satisfaction compared to men, due to several gender barriers, such as discomfort in the waiting area, absence of infant nursing space and a lack of gender sensitivity from the staff. These findings prompted FHF to take some action plans in terms of gender initiatives such as renovating service facilities, providing training to service providers including pharmacists on gender sensitive issues and so on.

## 2.1 FHF WORKSHOP AND TRAINING ACTIVITIES TO INTRODUCE GENDER EQUITABLE WORKSHOP

FHF conducted a gender equitable service delivery workshop for the Medical Officers and Sub-Assistant Medical Officers from different sub-district under Barishal district. Service providers from NGO partners were also invited in the workshop. The aim behind conducting the workshop was to arrange a participatory workshop to work closely with the service providers to ensure a gender equitable service delivery to all the patients. The service providers were also assigned to work as a gender focal person in their respective facilities. In this training session, FHF facilitated the concerned government staff to identify gender gaps and issues in line with gender-focused service delivery. To evaluate the workshop, FHF conducted *pre* and *post* aptitude tests, where 4 questions were asked; which included a) what do you understand by gender? b) What is gender inequality? c) Mention 5 reasons behind gender discrimination in accessing eye health care. d) Mention 5 steps you can take to ease women's access to eye health care. (Picture: The Fred Hollows Foundation)



Workshop agenda covered primary eye care (PEC), basic concepts of gender, addressing gender issues in line with SDG, sharing key progress metrics (as per MIS) under project supported public facilities and identified the gaps, challenges & opportunities to address gender issues. The inputs from the workshop and the scaled-up survey results also helped to design future interventions and communication materials which addressed identified gaps & challenges and how they could address the issues from their (service provider) level. (Picture: The Fred Hollows Foundation)



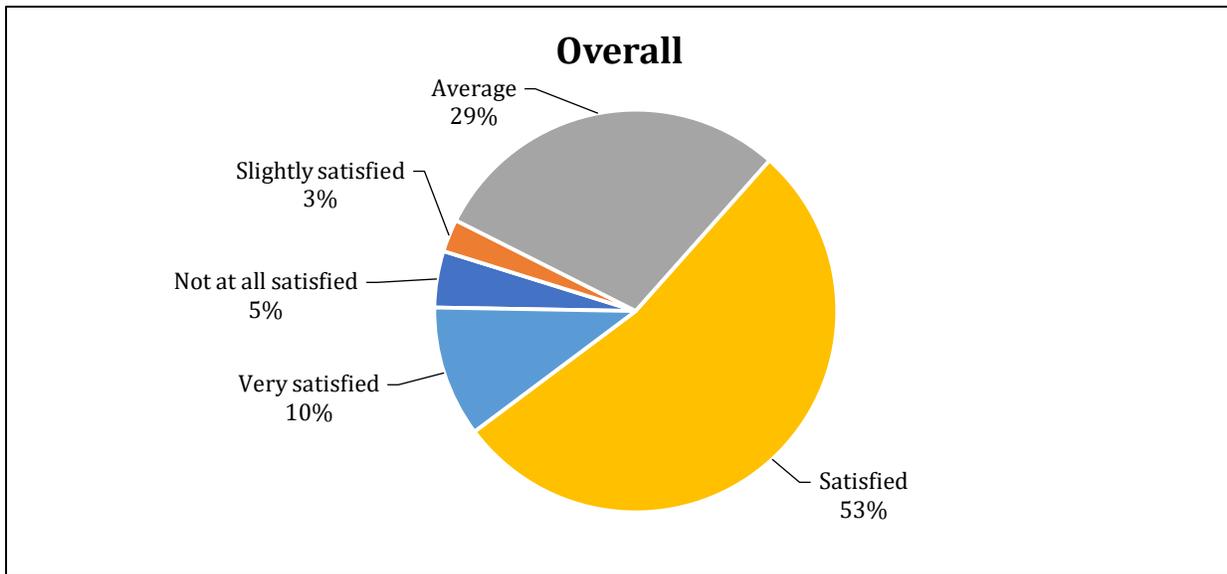


According to FHF staff, the gender workshops conducted in Nepal certainly helped in the designing of these workshops. A part of the workshop was basic understanding of gender and how it is related to the work and responsibilities of FHF.

At the end of the workshop, all the participants were provided a certificate for their active participation. (Picture: The Fred Hollows Foundation)

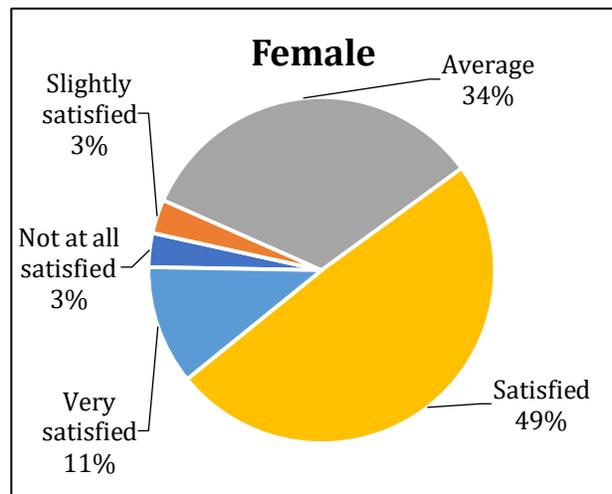
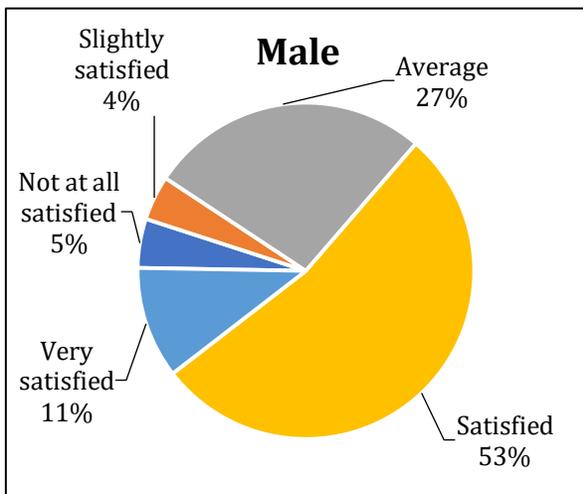
The table below refers the training and eye care facilities in respective hospital:

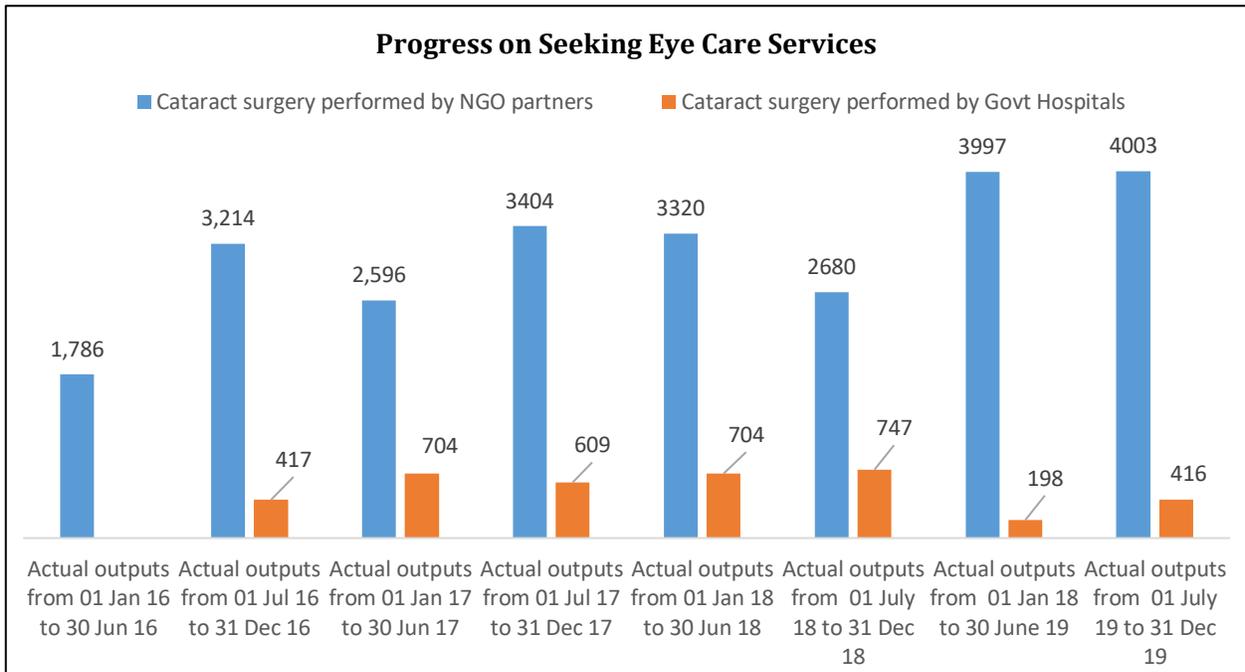
Eye Care Facilities	Training		
	SICS training for Ophthalmologist	OT management training for nurse	OT, OPD management training for AOP
Sher- e- Bangla Medical College and Hospital	✓	✓	✓
Barishal Sadar Hospital	✓	✓	✓
Patuakhali Sadar Hospital	✓	✓	✓
JhalokathiSadar Hospital	✓	✓	✓
PirojpurSadar Hospital	✓	✓	✓
Barguna Sadar Hospital	✓	✓	✓



This section provides a visualization of:

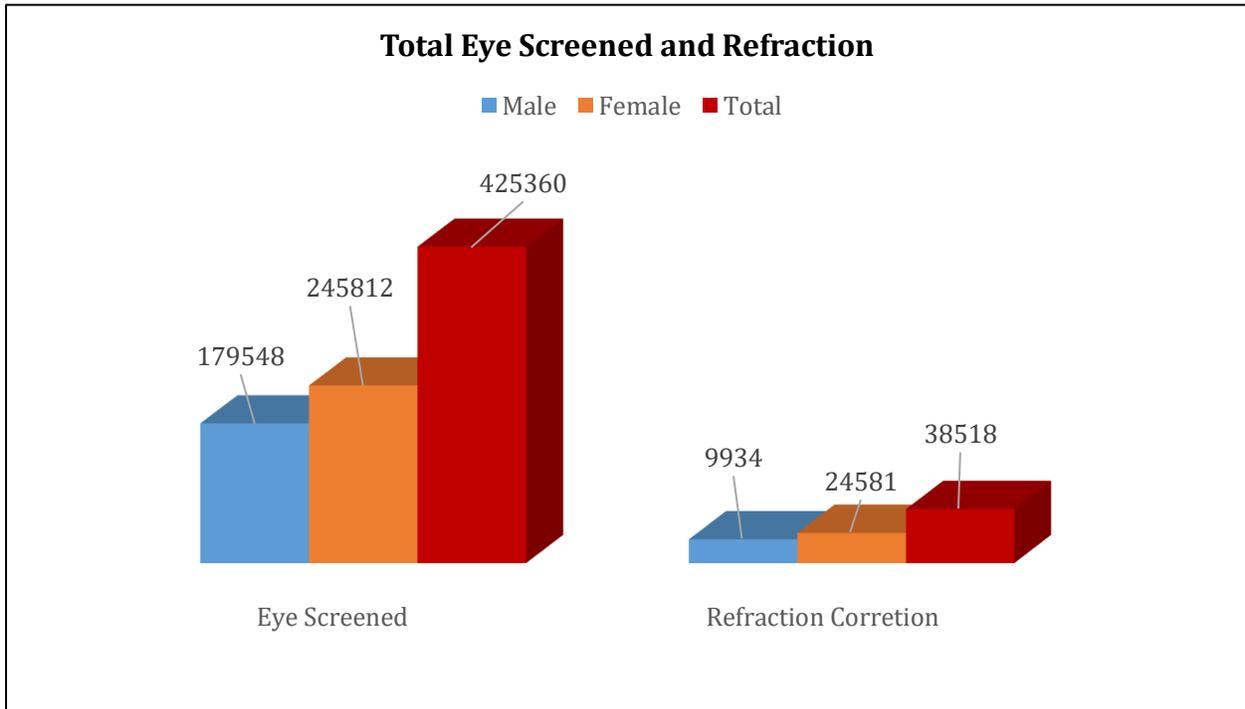
- Overall satisfaction of patients who visited health care facilities, irrespective of gender
- Satisfaction amongst male patients
- Satisfaction amongst female patients





This section offers insights through data visualization on:

- Cataract surgeries performed at NGO partner locations as well as at Govt. Hospitals between 2016 and 2019
- Eye screenings performed for RE and Correctional treatment provided, between males & females



## 2.2 DETAILS OF TRAINING PROVIDED TO DIFFERENT TARGET PEOPLE INVOLVED WITH SIB PROJECT

According to the secondary data provided by FHF, field observation and project activities, the summary of the workshop/training is prepared. It was found that till September 2019, FHF's approach toward improving the skills of eye care workers in cataract surgery, community and village health workers, health personnel in basic eye health (Nurses on OT management, MO/SACMO/MA on Basic eye screening), PEC and OPD management, and eye care workers in Primary Eye Care has been remarkable.

FHF provided training at different levels, among the MO, SACMO, MA introducing the activities of FHF as well as cataract surgery, OT management, basic eye screening, and also computers skills, management, and equipment maintenance.

### Gender Applications of Seeing is Believing: Through the Lens of WHO's 6 Pillars of Health

The Fred Hollows Foundations followed the World Health Organization's '6 Pillars of Health' to achieve the Seeing is Believing project's objective of increasing demand for services and provide services with gender equity in Barishal Division. The six pillars as mentioned below are:

- **Service Delivery:** FHF brought eye care services to the doorstep of women beneficiaries through outreach programs for women. Moreover, equal access to the Out-Patient Department (OPD) was facilitated through a gender alternating queue system. An innovative gender strategy for the project was also developed to build gender equitable eye health systems in Barishal division. Additionally, school students (with a priority on female students), were provided free eye screening and spectacles. Pilot testing has been initiated in Nalcity and Rajpur, which focused on group travel recommendations to ease the trouble of conveyance for elderly and women patients.
- **Health Workforce:** Training was regularly provided to health workers on gender equitable service delivery. Gender sensitivity training and workshops had also been held for doctors and nurses of FHF's partner hospitals. Training had also been provided to pharmacists and the referral system between pharmacists and nearby medical facilities was strengthened through constant monitoring visits. Moreover, patients were provided counselling, instructing them on the do's and don'ts of post-surgery rehabilitation.
- **Equipment and Infrastructure:** The equipment and infrastructure of government partners were constantly monitored and had been renovated according to needs. As FHF strongly emphasizes on gender sensitivity and privacy was always maintained during surgeries and OPD visitations at base hospitals. While gender sensitivity training had been provided to all staff of partner hospitals, the project also worked on making the facilities at the hospitals more women friendly. Infant nursing stations and women friendly waiting spaces, for example, had been established in partner hospitals to ensure their comfort and ease.
- **Financing:** Subsidized cataract surgeries were provided for the underprivileged while the ultra-poor were able to get access to free of cost services.
- **Leadership and Governance:** Female members had been included in the Divisional Steering Committee while attempts were taken on the inclusion of female community leaders and cascade trainers.
- **Health Information System/MIS:** A health information system (based on the WHO 6 pillars) had been developed which focused on the number of cataract patients, number of dropouts, number of cataract surgeries, trend analysis, age and economic class disaggregation, and gender

segregated data. This data analysis helped improve service delivery of the project and focused on the areas and challenges that needed work.

### 2.3 INCREASE DEMAND FOR SERVICES, AND PROVIDE EYE CARE SERVICES, WITH GENDER EQUITY

FHF had taken a number of initiatives to increase demand for services and to provide eye care services with gender equity in the last four years. A short description of these initiatives has been given for each year:

**2016:** With a view to increase demand and promote service uptake, awareness raising activations were organized by a well-known social marketing agency in remote areas prior to scheduled eye camps. The activations included interactive plays and pot songs, informative quiz show and drama shows; focus group discussions were also performed with elderly women of microfinance beneficiary groups and Hindu communities and afternoon information meetings held with the general female community. A total of 53,975 patients were screened at outreach eye camps, among which 24,722 (45.8%) were males and 29,252 (54.2%) were females. A total of 3,631 cataract surgeries were conducted in partner hospitals among which 1,872 were male patients (51.5%) and 1759 (48.5%) were female patients. Mitigation tasks and gender innovative strategies were undertaken to increase surgery uptakes by women and reached the target of 56% female surgeries as mentioned in the project proposal. 14,281 patients identified with refractive error were provided with prescriptions among which 9,018 (63.1%) were male and rest 5,263 (36.9%) were female.

**2017:** Prior to the scheduled eye camps and cascade trainings, awareness raising activations were organized by FHF partner organizations - Ispahani Islamia Eye Institute and Hospital, Bakerganj Forum, and the Women Empowerment Foundation in the remote areas. These helped demand creation and promotion of service uptake. The activations included billboards, miking, focus group discussions among the elderly women from marginalized Hindu communities. Robust communication activities had resulted in a higher turnout of eye patients in hospitals.

- A comprehensive Gender Strategy and SBCC strategy had been produced and strategies from these documents were being implemented.
- The School Screening Program had started in association with FHF partner Bakerganj Forum. 3,921 students were screened, among which 1,804 (46%) were male and 2,117 (54%) were female. 1,000 students have received spectacles after RE check-ups. Schools also received vision charts and teachers were trained to assist in self-detection.
- A video had been produced showcasing post-operative instructions for cataract patients. This video would later be shown in waiting room televisions of partner hospitals for the patients and relatives of patients to see and be informed about what to do and what not to do for a post-operative cataract patient.
- 3,300 quality cataract surgeries were supported at partner base hospitals and during outreach activities.
- 60,500 patients received vision screening.
- 15,978 patients were given prescriptions after being identified with a refractive error.
- 299 Health and Family Planning Workers were oriented on Primary Eye Care to identify people with basic vision problems at the community level, and then referring them using the appropriate referral pathway.
- Several field visits were undertaken to monitor partner activities and quality of eye care services being provided and build rapport with new partners.

- Gender specific patient satisfaction surveys were completed at partner hospitals, with results that are still being analyzed. Women were found to have less patient satisfaction compared to men at almost all the hospitals.
- In this reporting period, the project screened 27,311 males (45%) and 33,189 females (55%).
- Gender disaggregated data for cataract surgery was almost equal with females at 1,608 (48.7%) and males at 1,692 (51.3%).
- 6,431 males (40%) and 9,547 females (60%) patients were identified with refractive error and provided prescriptions.
- 2,117 female students (54%) and 1,804 male students (46%) were screened for refractive error under the school screening program. Among those screened, 651 female students (65%) and 349 male students (35%) were given spectacles.
- 1,800 female community members (58%) and 1,300 male community members (42%) were provided with cascade orientation on basic eye care (BEC) and gender-specific issues.

**2018:** The key activities that had taken place in this reporting period include:

- Implementation of strategies from the gender strategy and SBCC strategy produced in Y2-H1.
- Training and workshops were conducted on basic eye care and gender equitable service delivery. Medical Officers, Sub Assistant Community Medical Officers (SACMO) and service providers from NGO partners participated in the training. Growth of trainees was measured through pre and post training tests. The follow-up monitoring visit after the training ensured that the service providers were now friendlier towards the female beneficiaries. From a community level, cascade training had been very helpful which had increased knowledge on common eye problems as well as increased awareness of eye care facilities that were available nearby. Pharmacy trainings had also been very positive as it had yielded positive result with a high flow of patients already referred from pharmacies after the trainings.
- The mid-term evaluation was conducted to measure the progress, outcomes and achievement of the project in terms of expected results. Recommendations from the mid-term evaluation on the strategic direction of the program would later be extensively used in order to further increase access to and utilization of quality, sustainable and accessible eye care services, especially among the female patients.
- An initiative was undertaken this reporting period to address a key finding from the mid-term evaluation and the gender workshop that “transportation acted as a key barrier for the women for the uptake of eye care service.” On a pilot basis, an initiative was undertaken in two sub-districts (Nalcity, Rajapur) to help provide transport facilities to the patients. This innovative approach not only helped to increase the patient flow of Jhalokathi District Hospital but also strengthened the referral system in place. Women with transportation barriers were able to avail eye care service and this model could now be replicated further in the future.
- The School Screening Program continued, and 521 students received spectacles after RE check-ups, among which 125 (24%) were male and 396 (76%) were female. Fewer spectacles were distributed due to vacation periods and exam schedules but the deficit would be covered in the next reporting period.
- A separate advocacy session was conducted for husbands of elderly women to discuss the need and importance of eye care.
- Meetings were held with NGO partners to assign a paramedic as a gender focal person in their respective facilities. This approach was undertaken in order to provide additional support and counselling to female patients. Moreover, all the service providers who were present and assisted the ophthalmologists had also been provided guidance to help patients with counselling sessions and advisory services.

- Identified cataract drop-out patients were followed up with and analyzed in this reporting period, which included a process of developing a questionnaire, pre-testing and updating the questionnaire.
- 3,320 quality cataract surgeries were supported at partner base hospitals and during outreach activities.
- 11,324 patients were provided with prescriptions after being identified with RE.
- Several field visits were undertaken to monitor partner activities and quality of eye care services being provided and build rapport with new partners.
- In this reporting period, the project screened 81,683 males (44%) and 28,931 females (56%). Implementation of Gender Innovative Strategies, along with the communication campaign, had resulted in increased patient flow.
- Gender disaggregated data for cataract surgery was 8,512 females (51%) and 8,242 males (49%). Among the NGO partners, a total of 3,320 cataract surgeries were conducted in partner hospitals among which 1,473 were male patients (45%) and 1,847 were female patients (55%).
- Among the students provided with spectacles, 396 female students (76%) and 125 male students (24%) were provided spectacles.
- 2979 (68%) female community members and 1396 (32%) male community members were provided with cascade orientation on basic eye care (BEC) and gender-specific issues.

**June 2019:** The key activities that had taken place in this reporting period include:

- Implementation of strategies from The Gender Strategy and SBCC Strategy produced in Y2-H1.
- Work in progress of the implementations of recommendations from the midterm evaluation.
- The School Screening Program continued, and 997 students received spectacles after RE check-ups, among which 396 (39.7%) were female recipients and 601 (60.3%) were male recipients.
- A Steering Committee had been created and a meeting, chaired by the Director (Health) of Barishal Division, was held to support project management and coordination among public and NGO partners, and help in implementation of the advocacy strategy in future.
- A total of 4,195 quality cataract surgeries were supported at partner base hospitals and during outreach activities.
- A total of 5,967 patients screened and identified with refractive error were provided with prescriptions.
- Several field visits were undertaken to monitor partner activities and quality of eye care services being provided and build rapport with new partners.
- In this reporting period, the project screened a total of 76,855 people. A total of 42,321 (56%) women and 34,534 (44%) men were screened.
- Among the NGO partners, a total of 59,955 people screened, where females numbered 32,973 (55%) and males numbered 26,982 (45%).
- A total of 4,195 cataract surgeries were performed at both NGO partner and government hospitals. Gender disaggregated data for cataract surgery during this period is: 2,365 females (57%) and 1,830 males (43%). Among the NGO partners, a total of 3,997 cataract surgeries were performed in partner hospitals, among which 2259 were female recipients (57%) and 1738 (43%) were male recipients. In public hospital a total of 198 cataract surgeries were performed where female 106 (53.5%) and male 92 (46.5%).
- 396 female students (40%) and 601 male students (60%) were provided spectacles after further screening.

**December 2019:** Number of persons screened at partner hospitals and outreach camps numbered in

60,045 beneficiaries; 44,460 (74%) females and 15,585 (26%) males were screened by NGO partners at outreach camps and 15,065, of which 8271 (54.9%) females and 6794 (45.1%) males were screened at public hospitals (divisional and district level).

The total number of screened people (both public 15,065 and private 60,045) is 75,110; with 52,731 (70.2%) females and 22,379 (29.8%) males.

- **Patients received sight restoring cataract surgery through NGO partner hospitals, of whom at least 56% were women**

A total of 4,003 (all from private sector) cataract surgeries were conducted, by NGO partners' hospitals, among which 1039 (26%) were male patients and 2964 (74%) were female patients.

A total 352 (from public hospital) cataract surgeries were conducted by Government hospital; 189 (53.7%) were female & 163 (46.3%) were male. The total number of cataract surgeries performed in both sectors was 4,355.

- **Patients identified with RE and provided with prescription at partner hospitals.**

In this reporting period, a total of 6503; 2887 (44.4%) female and 3616 (54.6%) male patients were screened at partner hospitals were provided with prescriptions.

## 2.4 IMPROVE QUALITY OF SERVICES THROUGH A HEALTH SYSTEMS STRENGTHENING APPROACH

A **steering committee** chaired by Director (Health) of Barishal Division was formed by FHF to support to project management and coordination among public and private partners and help in implementation of advocacy strategy in future. This committee aims to strengthen the health system by building horizontal communication and cooperation between private and public health institutions whilst also building leadership and governance from within. Project updates and ideas were shared, in particular with regards to the innovative gender strategy. Participants of the meeting were the Director Health, all Additional Directors, Deputy Directors, Director Sher-e-Bangla Medical College Hospital and Superintendent Patuakhali District Hospital, all Civil Surgeons (Barishal, Jhalokathi, Pirajpur, Patuakhali), senior eye consultant from Barishal, Jhalokathi, Pirajpur, Patuakhali districts, senior Ophthalmologist from Sher-e-Bangla Medical College and Hospital, Ispahani Islamia Eye Hospital, Nizam Hasina Foundation, Grameen GC, Upazila Health and Family Planning Officer (UHFPO) from Mirjaganj, Babuganj and female Medical Officers from respective health facilities of Barishal. *(Picture: The Fred Hollows Foundation)*



Basic equipment was provided to the district hospitals to enhance eye care service delivery. Prior to the provision of equipment, the hospital did not have the capacity to do any cataract surgery. After providing equipment they are now ready to provide quality cataract surgeries. Equipment maintenance and cataract surgeries would be completed in the next reporting period. *(Picture: IMPB)*

Eye Care Facilities	OPD Setup and renovation	OT Setup and renovation
Sher- e- Bangla Medical College and Hospital	✓	✓
Barishal Sadar Hospital	✓	✓
Patuakhali Sadar Hospital	✓	✓
JhalokathiSadar Hospital	✓	✓
PirojpurSadar Hospital	✓	✓
25 Upazillas	✓	X (Referred)

Pirojpur District Hospital has been supported to develop gender friendly renovations at district level hospitals, which were required to enhance the service delivery environment for women and men.

Equipment List for OT and OPD	
OPD	OT
Digital Application Tonometer	Operating Microscope
Digital Auto Kerotometer	OT Table
Slit Lamp	Spot Light
Bipolar Cautery	OT Chair
Auto Refract meter	De-humidifier
Vision Box with Stand	Auto Clave
90 D Volk Lens	Lens meter
Cross Cylinder	Sterilization Box
Color Vision Chart	Surgical Tray
Instrument Trolley for Anterior Vasectomy Machine	Kidney Tray
Direct Ophthalmoscope	OT Tray
Retinoscope	DCR Set
Indirect Ophthalmoscope	IOL Cataract Set
A-Scan	Hot Air Oven
Glucometer	Instrument Trolley for Ophthalmic Surgical Instrument
BP Machine with Stethoscope	
Anterior Vitrectomy Machine	
Head Band Examination Loop	
Trial Lens	
Vision Accuracy Chart	
Tonometer	
Digital Vision Box	

Separate waiting spaces for men and women had been established to facilitate a more comfortable environment for female patients. Districts hospitals are able to provide quality eye treatment and cataract surgeries with proper gender equity. Basic equipment had been provided to UHCs which were required to support the implementation of basic eye health screening. Currently these UHCs are able to provide quality eye care services and provide basic eye care services in a gender equitable environment.

## SCB involvement

Standard Chartered Bank (SCB) has worked closely with FHF project staff in various scopes of the project. SCB staff members volunteered during the various events that were organized in celebration of World Sight Day 2016. In this special occasion, a school screening program was organized in an underprivileged community, where SCB staff volunteered in registering all school students and organizing the children's queue.

On the same occasion, a screening camp was organized for poor rickshaw pullers. SCB staff volunteered to register all the rickshaw pullers and later they distributed free spectacles to 12 rickshaw pullers who were identified with RE. Later during an interactive pot song arranged for wider community, SCB staff took part in a quiz contest about eye care and interacted with community members to raise awareness on the importance of eye care.

The FHF Bangladesh team had worked to address the scheduled activities in the action plan developed following Ms. Sally Crook's (Programme Manager of IAPB) previous visit in October 2018 in line with the recommendations made.

Local SCB staff had been in regular touch regarding project updates, including progress tracking and key output progress on cataract surgery, total screening, total spectacles distributed, community leaders trained, and total health personnel trained in basic eye health.

The head of Corporate Affairs and Senior Manager of SCB visited the project sites in Barishal District and were accompanied by The Fred Hollows Foundation Senior Program Manager and Project Officer. The visitors witnessed the project activities including cascade training in Bakergonj and eye camp screenings in Barishal. They also visited partner hospitals (Sher-e Bangla Medical College Hospital and Ispahani Islamia Eye Institute and Hospital) and talked with beneficiaries in the service centers, as well as community members, religious and social leaders.

## CHAPTER 3

# METHODOLOGY & IMPLEMENTATION

A cross-sectional study was conducted using a mixed method of Survey, FGD, In-depth interviews with project personnel and stakeholders, documents, and records review. Under quantitative method, a sample survey was carried out. The qualitative methods included FGD, In-depth interviews (IDI)/Key Informant Interviews (KII) and document reviews were done. The study was conducted in all the six districts of Barishal division.

### 3.1 STUDY METHODOLOGY

#### Target Respondents

The respondents of the study were as follows:

##### Primary respondents:

- Community members (women, men, transgendered people)
- Women and men who have sought eye health care (to explore their experience of disease, the process of deciding they needed care, how they knew where to go, their experience, cost, barriers, facilities, etc.)
- Women and men who have not sought eye health care (to explore their experience of disease, the decision making process, who made the decision, why they made the decision, other barriers to access, how it may be made possible for them to access eye care again, etc.)
- Women identified with cataract who did not yet uptake surgery (including their head of household and other family members)
- Women on whom cataract surgeries have been performed (to explore their perception before being operated on and the enabling factors which led to uptake of surgery)
- Health and eye health care providers of public and private sectors across primary, secondary and tertiary levels (will include Ophthalmologists, doctors, Upazila Health & Family Planning Officers, medical team, non-medical team, Community Health Workers)
- Management and other staff of eye hospitals and NGOs
- Coordinators and field staff of outreach eye camps in private sector (Ispahani Islamia Eye Institute and Hospital, Nizam Hasina Foundation.)

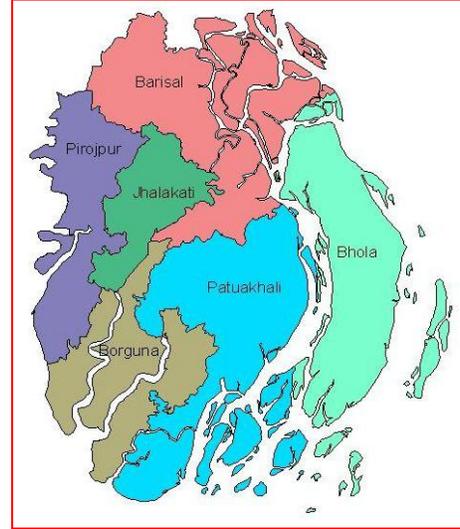


Focus Group Discussions (FGDs) were held with men and women separately. FGDs for low income groups (from both rural and urban settings) were conducted separately.

#### Study Areas

FHF is implementing the project in six districts of Barishal Division. Therefore, the end-line evaluation of the project was conducted in the following six districts:

1. Barishal
2. Pirojpur
3. Borguna
4. Bhola
5. Patuakhali and
6. Jhalokathi



### Sample Size Determination

A multistage probability sampling method were used to select the respondents. To ensure probabilistic sample selection, we resorted to stratification. Here, each district was considered as a stratum. From each stratum, the Primary Sampling Units (PSU) were selected randomly using Probability Proportional to Population Size (PPS) method. Smallest identifiable administrative units were treated as PSU's. The interviews were conducted in the household of the respondents. The male-female ratio was 50: 50.

$$n = \frac{Z^2 pq}{e^2} \times Deff$$

- p = Expected value of the indicator= 50%
- q = (1- p)
- e = Margin of error = 5%
- Deff = Design effect =2
- Z-score = 1.96 at standard of 95% confidence interval

Thus, with the above assumptions, the required sample size for the research worked out to be 768. After considering 10% as non-response rate, the final sample size as estimated was 844. Since the majority of women suffer from cataract, the female and male distribution were roughly 52:48. The number of samples was distributed among 6 districts proportionately, based on the prevalence of suffering from cataract. The sample distribution was finalized in consultation with FHF.

Respondents	Barishal	Bhola	Jhalokhati	Barguna	Pirojpur	Potuakhali	Total
Female	72	75	56	67	71	65	406
Male	78	75	64	83	49	85	434
Total	150	150	120	150	120	150	840

### Quantitative Sampling Selection Procedure

The sample selection procedure of the study is as follows:

- All the six districts were covered including both urban and rural areas
- The sample size of urban and rural were fixed proportionately based on the prevalence of suffering from cataract.
- Under each stratum, *para/moholla* were considered as primary sampling unit (PSU) for urban and village for rural areas respectively. We interviewed 10 respondents from each PSU. Thus, number of PSUs covered in the study was 84.
- The PSU were selected following PPS (probability proportional to size) method.

- After selecting PSU, an enumerator selected a starting point from each PSU and selected every fifth households to interview one respondent who have sought eye health care or have not sought the same. The process continued until interview of 10 respondents were completed. From each PSU, 5 males and 5 females were interviewed.
- A sub-sample of female patients (50 those accepted surgery and 50 those not accepted surgery) were included in the survey.

In addition to the survey, for qualitative research, there were FGDs, KIIs/IDIs, and Case Studies. The qualitative samples were selected purposively from each of the targeted audience segments. The qualitative samples were independent of the quantitative survey.

### Qualitative Sample Selection Procedure

The selected participants for the FGDs were invited to take part in the discussion sessions considering homogeneity. The FGD participants and the KII respondents were informed about the project objectives and their informed consents were taken before starting the discussions or interviews. All the respondents of the qualitative survey were selected based on their availability and willingness to participate in the study.

### Sample Distribution

Target Respondents	6 Districts (Barishal Division)		
	Rural	Urban	Total
<b>Focus Group Discussion (FGDs)</b>			
- Community people- women	6	6	12
- Community people- men	6	6	12
- Total	12	12	24
<b>In depth interviews (IDIs)</b>			
- Service providers	-	-	20
- Relevant stakeholders	-	-	10
- FHF team at local and national level as well as partner staff	-	-	5
- Total			<b>35</b>
<b>Case Study</b>			
Who received eye care services from FHF			<b>10</b>

Besides, reviewing of the existing relevant documents were one of the most integral components of this study. At the beginning of the study, secondary information, existing publication, existing data, reports (MIS reports and half yearly reports) and formats were used as source of information. Moreover, all relevant project reports/documents such as baseline and half-yearly reports and any other survey documents were reviewed. The gender strategy and social and behavior change communication (SBCC) strategy developed for specific objective were also reviewed.

### 3.2 STUDY IMPLEMENTATION PROCESS

#### Project Inception

**Project Inception Meeting:** After the awarded of the project, ResInt research team met with FHF team to discuss the details about the project, its sampling procedure, study locations, survey, draft questionnaires and FGD/IDI/KII guides, timeline, and other related issues.

**Desk Review:** ResInt collected necessary documents, records, previous studies, MIS data and literature relevant to the current assignment relevant from FHF. It helped the researchers in understanding the current level of health care services provided through their 3-tier health care system.

**Inception Report:** ResInt submitted an Inception Report to FHF. The report included the final set of data collection tools, sampling plan, research methodology, training plan, final report outlines and agreed timeline.

### 3.3 FIELD WORK IMPLEMENTATION

#### Data Collection: Team Selection, and Instruments Finalization

**Recruitment of Field Staff:** There were two teams for data collections, one for the survey (quantitative survey among women and men), and the other for the qualitative component (through FGDs, IDI/KIIs, and observation). The field manager and the field executives looked after the recruitment of female and male interviewers and supervisors for a quantitative survey. The field team was mostly from the existing panel of supervisors and male and female interviewers. However, few were fresh recruitment as well.

**Instruments:** ResInt developed the structured questionnaire in Bangla (and were translated into English). Questionnaires were pretested for logical flow, responses and probes, translation and understandability before final data collection. Informed consent was taken from the pre-test participants prior to engaging them in the study. Pre-test observations were shared with FHF. The questionnaire was used for data collection after getting the approval from FHF.

**Qualitative Discussions Recording & Transcripts:** All discussions were recorded using digital audio recorders and were transcribed (verbatim) for content analysis.

### 3.4 TRAINING OF THE DATA COLLECTION TEAM

The training for the researchers and field team were held centrally in Dhaka (so that all the core team could align with the objective and expected the outcome of the study). The trainees were the Field Investigators (FIs), Field Supervisors (FSs) and Quality Controller (QC). The Quality Assurance team were also in the training program. The research professionals were present in the training sessions.

Mock calls and interviews practiced in the classroom before taking them to field for trial calls. The practical sessions helped FIs/FSs to have a clear understanding



of each question in the questionnaire/tools. After evaluation of the performances, the successful FIs/FSs were selected for the project. FHF representative attended the session and explained the objectives and purpose of the study. Training manuals (for investigators and supervisors) was used after translating them in Bengali. *(Picture: The training session among the field team was conducted by ResInt Field Manager)*

### Training Topics

- About the project, its objectives, purpose, and importance (by FHF representative)
- Subject knowledge on health/cataract, gender equity, marginalized population etc.
- Research methodology, sampling etc.
- Art of asking questions and managing the respondents (if required)
- A questionnaire, data collection, backcheck etc.
- Quality Control, Ethical issues
- Crisis management
- Motivational issues

## 3.5 DATA ANALYSIS

The information drawn through multiple viewpoints such as using both the quantitative and qualitative approaches, ensured the **triangulation of information**. The survey data were compared and validated through FGDs, KIIs and IDIs, and thereby increased the accuracy, reliability and validity of the results. The project coordinator and the team provided inputs at various stages of data processing and analysis in consultation with FHF.

ResInt was responsible for the management of quantitative data which includes data entry, cleaning, labeling and quality control. The data analysis was carried out using SPSS as per the tabulation plan finalized in consultation with FHF.

The qualitative approaches were managed by an experienced researcher having anthropological background. The FGDs were moderated by skilled moderators, assisted by note takers.

### Quantitative Data Management

**Office Editing/Coding:** Though field editing was done in the field, office editing of all the completed schedules were carried out by trained office editors as per the data entry program, which includes coding of open-ended questions, identification details, and consistency checks, before starting the data entry process.

**Data Entry:** Data entry was carried out under the supervision of Analysis Manager. A FoxPro package was used for entering the data obtained from the field surveys. Further, it was converted to an SPSS file for analysis. Computer-based checks were done and based on the errors generated, inconsistencies were removed, and the base data were cleaned.

**Analysis:** The data analysis was carried out using SPSS as per the tabulation plan finalized in consultation with FHF.

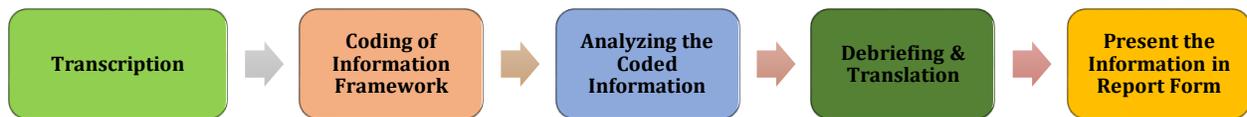
### Qualitative Data Management

Qualitative information was extracted and compiled through content/thematic analysis.

**Transcribe of the FGD and KII:** After the completion of FGD and KII/IDI, before transcribing the audiotape, the interviewers immediately noted the interview to capture immediate or fresh impressions or observations during the discussion or interview so that it is not lapsed from the memory. Further, the audiotapes of the discussions were transcribed and translated by the professional transcribers and translators.

Moreover, the moderators and the qualitative researcher, verified the accuracy of the transcriptions before analysis.

**Content analysis of qualitative data:** This approach was used to interpret meaning from the content of text data and, hence, adhere to the naturalistic paradigm. The qualitative analysis process was done as per following flow-chart:



## CHAPTER 4

### THE BENEFICIARIES

#### 4.1 PROFILE OF THE RESPONDENTS

This chapter describes the demographic characteristics of the household, including age, sex, educational attainment, and employment status.

#### Demographic Profile of the Household Members

According to the data, the respondents are from a diverse group and represent a wide spectrum of demographics.

**Table 1: Demographic Profile of the Household Members (%)**

Demographic Profile	Male	Female	Total
Gender of the HH members	51.7	48.3	100
<b>Age Group of HH member (in years)</b>			
Below 10 years	7.2	8.4	7.8
Age 10-20 years	21.6	22.7	22.1
Age 21-30 years	21.1	20.9	21.0
Age 31-40 years	14.9	16.7	15.8
Age 41-50 years	15.3	12.7	14.1
Age 51-60 years	10.2	9.4	9.8
Above 60 years	9.7	9.2	9.5
<b>Education of HH members</b>			
No education	4.0	4.6	4.3
Up-to Nine class	56.1	56.4	56.2
SSC passed	15.4	14.6	15.0
HSC passed	10.9	9.2	10.0
Graduate	3.1	2.1	2.6
Masters and higher	1.3	1.2	1.2
N/A (Below 6 years)	4.5	6.1	5.3
Vocational/Poly	0.3	0.2	0.2
Can sign only	4.3	5.7	5.0
<b>Occupation of HH members</b>			
Housewife	29.0	29.0	29.0
Student	25.4	24.4	24.9
Small/petty	8.3	6.7	7.5
N/A (0-18 years)	5.7	7.8	6.7
Farming – Own/Share	6.5	5.2	5.9
Disabled/retarded/old, cannot work	5.5	6.1	5.8
Job in the private sector	4.4	5.7	5.1
Nonagricultural Labor	3.0	2.0	2.5
Others	12.2	13.0	12.6
<b>Marital Status of HH members</b>			
Unmarried	31.3	30.5	30.9
Married	59.9	56.6	58.3

Demographic Profile	Male	Female	Total
Widow/ Widowed	2.6	5.4	4.0
Divorced	0.5	0.4	0.5
Separated/ Abandoned	0.3	0.6	0.4
N/A (0-18 years)	5.4	6.5	5.9
Average HH income (monthly) in BDT	17,593	17,074	17,342
Average HH expenditure (monthly) in BDT	11,909	11,683	11,800
<b>Total</b>	<b>434</b>	<b>406</b>	<b>840</b>

Table 1 shows the distribution of the household population by age, sex, and education. Around 52% of the total household members were male and 48% of the members were women. This distribution is found to be similar among all the districts in Barishal division. Their average age is 33 years.

Considering all the members of the households, the education profile shows that 4.3 % of the members are not educated, females are slightly higher (4.6%) than the males (4.0%). However, around 56% had some primary school education and some high school education and only 15% passed SSC and 10% passed HSC. Above HSC+ education is found among 3.4% of the members of the households. Comparatively, males are marginally more educated than the females.

Around half of the members of the households (58.3%) are married while other members are mostly unmarried (30.9%). Though more males are married (59.9%) than the females (56.6%), but the divorce rate is higher among the females (5.4%) than their counter parts (2.6%).

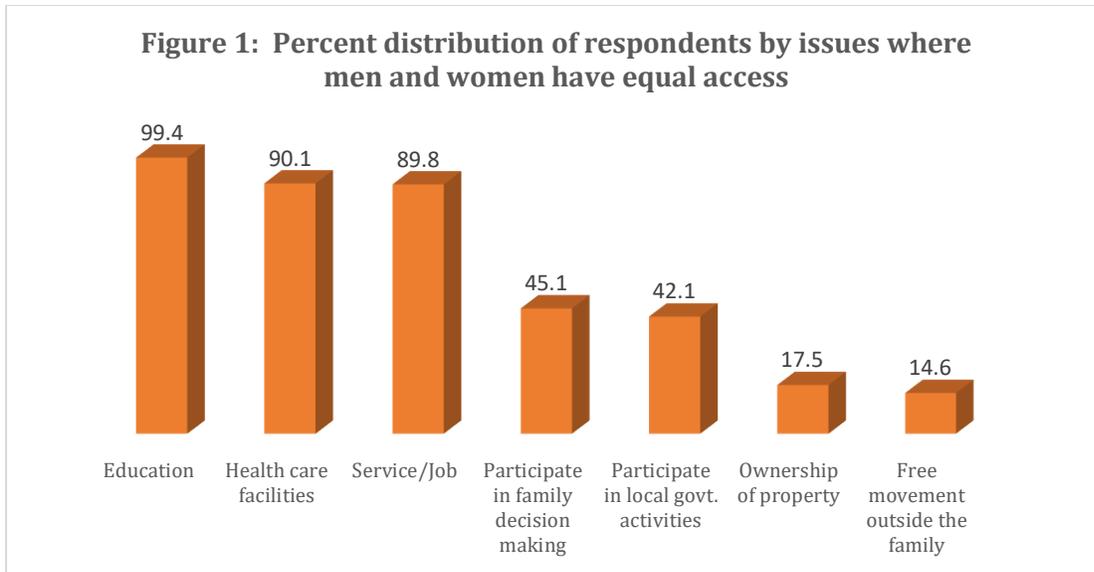
Occupation-wise 25% of the members are students, and 29% of the members are housewives. About 5.8% of members are disabled/retired/old, cannot work. Other members are mostly employed in various manual labor or skilled work or small businesses.

Monthly average income of the sample households is BDT 17,342 and monthly average expenditure is BDT11,800. As expected, the average income of the females (BDT11,683) is less than the males (BDT11,909).

## 4.2 GENDER ISSUES

Most of the surveyed respondents perceived that men and women have the same level of rights and opportunities in life – whether in careers, raising children or issues of treatment, but in reality, the women are deprived in all these areas of life. This was stated by the women in all the focus group discussions. The table below shows that the female members get the similar opportunities (like their male counterparts) in different areas, such as education (99%), health care facility (90%), service/job (90%) etc.

However, there are areas where females are deprived, as stated by the respondents. The females have the less access in participating in family decision making process (45.1%), in local government activities (42.1%), ownership of property (17.5%) and free movement outside the family (14.6%) as compared to male. The findings are quite similar across the six districts.



After marriage, the females have to seek permission from their husbands and mothers-in-law for availing health care services. It has become a household norm. However, few of the female participants mentioned “they do so as they think seeking permission is showing respect to their husbands and mother in laws”.

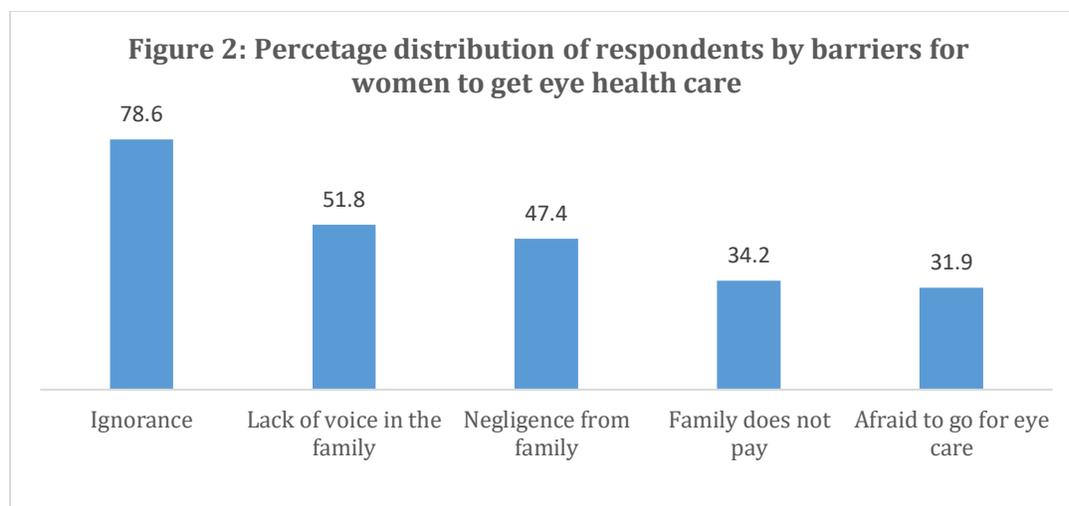
***“First, I ask permission from my mother-in-law and father-in-law, since my husband said, they are the bosses. If they don’t object, then I call my husband. He says, if I have permission from his parents, he doesn’t mind me going to a doctor” – a 32-year old housewife***

Women expressed a generalized preference to have a family meeting to take decisions about an individual’s healthcare needs and treatment. Involvement of head of the households in the decision-making process is believed to ensure financial and logistical support.

***“I think it’s always better to discuss it with the family members. But sometimes I feel shy to bring up some issues in front of men. Then I talk to my mother-in-law”– a 21-year old housewife,***

Around 97.6% of the respondents feel that male companion is necessary to get proper treatment. However, around 63% of female patients visit health facilities without accompanying a male partner. The percentage is higher in Patuakhali (93.3%) as compared to rest of the districts in Barishal division. among the female respondents, 15.7% feel safe to visit in a doctor’s chamber/health facility without a male or another female attendant. Privacy is one of the most important issues of health services. Although most of the respondents opposed to visit the health facility without any accompany of male or female partners but, they don’t have any issues regarding the privacy in the health facility center. Majority of the respondents (92.3%) reported that a local health facility provides adequate privacy to the female patient. According to the FGD findings, respondents were satisfied with the privacy maintained in the health care facility; no difficulties in or obstacles to receiving care were mentioned.

According to the respondents, the top three barriers for women to get eye health care are self-ignorance (78.6%), lack of voice in the family (51.8%), negligence from the family (47.4%).



One of the respondents said,

*“There is no problem in seeing a doctor, except that I sometimes get so busy that completely forget about my health” – Housewife, 39 years old*

#### 4.3 KNOWLEDGE, ATTITUDES AND PRACTICES TOWARD EYE HEALTH

##### Knowledge about Eye Problem

Most of the respondents are found to be familiar with common eye health problems like cataract (76.2%) and refractive error (72.9%). In Bhola and Pirojpur, it has been found that respondents have better knowledge in eye problem than the respondents of other districts. Also, awareness level has increased as compared to the baseline study. As per the FGD findings, participants are aware that blindness can be prevented if effective measures are taken beforehand. While probing their understanding, most respondents mentioned eating nutritious food is the best measure to prevent blindness followed by early treatment and regular eye care.

**Table 2: Percentage distribution of respondents by knowledge of different eye problems**

Different type of eye problem	Barishal	Patuakhali	Bhola	Jhalokati	Pirojpur	Barguna	Male	Female	Total
Cataract	32.7	63.3	78.7	67.5	89.2	54.7	75.1	77.4	76.2
Refractive Error	57.3	86.7	14.7	30.0	45.8	77.3	71.4	73.1	72.9
Watery discharge from eye	24.0	17.3	54.0	40.0	42.5	35.3	35.0	35.2	35.1
Dimness of vision	13.3	22.7	0.0	0.0	0.8	18.7	21.2	18.2	19.8
Conjunctivitis	16.7	22.7	0.7	12.5	20.0	28.7	14.7	19.2	16.9
Suffer from eye pain	26.7	9.3	30.0	13.3	2.5	4.7	14.7	15.0	14.9
Eye allergy	18.7	2.7	34.0	8.3	1.8	9.3	10.1	15.5	12.7
Others	15.3	10.0	6.0	12.5	7.5	10.7	11.8	8.9	10.4

Also, almost all of the respondents mentioned if eye problem is not treated on time, people might go blind (99.4%). While probing their understanding, most of the respondents (97.4%) mentioned some eye problem can be prevented and all respondent mentioned that curative care is available.

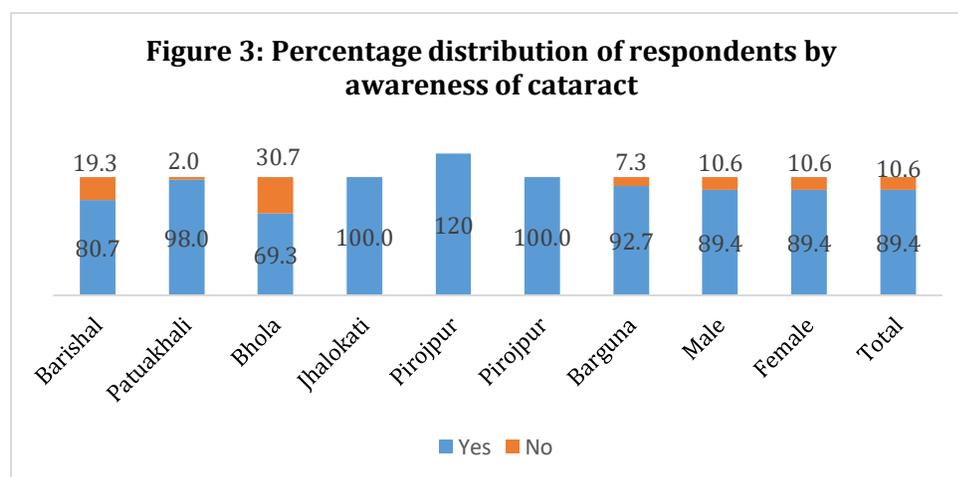
**Table 3: Percentage distribution of respondents by knowledge about preventative measures against blindness**

	Barishal	Bhola	Jhalokhati	Barguna	Pirojpur	Potua khali
If eye problem not treated in time you might go blind	98.7	100	97.6	100	100	100.0
Some eye problem can be prevented	92.0	100	98.3	100	100	100
Curative care is available	100.0	100.0	100.0	100.0	100.0	100.0

The participants of FGDs opined that if the treatment is not taken in proper time, possibilities of suffering from more complications are high and even the consequences may lead to blindness forever.

### Knowledge about Cataract

In response to a question on cataract, overall, 89.4% of the respondents are aware of of cataract, of them 89.4% are female and 88.7% are male. Respondents have the clear idea about the symptoms of cataract. Around 91% of the respondents mentioned that surgery is the main treatment of preventing cataract.



Women and men have similar knowledge about the symptoms of cataract. The main symptoms, as mentioned by the respondents are clouding of the lens inside the eye (59.4%) and blurred vision (41%). Around 15% of the respondents reported that any of their household (HH) members received cataract surgery. The Influential factors for considering the cataract surgery are patients' willingness (89.6%) followed by the encouragements from their families (75.2%) and financial resources (i.e. availability of fund) for surgery (56.8%). However, barriers to uptake cataract treatment include negligence from the family and self-negligence, insufficient fund and lack of support/help. These factors are more applicable to women.

According to FGDs participants, cataract is the main problem of all eye diseases in Bangladesh. The participants could correctly mention that a thin curtain/screen like membrane is developed in the eyes and becomes thick in course of time and gradually losing eyesight and having less visibility, even from the nearest place. They further mentioned that cataract is considered mainly an old age complication. According to their perception and experience, majority of the people suffer from cataract at the age of

around 50-60 years. They opined that people with cataract may be blind forever if proper treatment is not done at the right time.

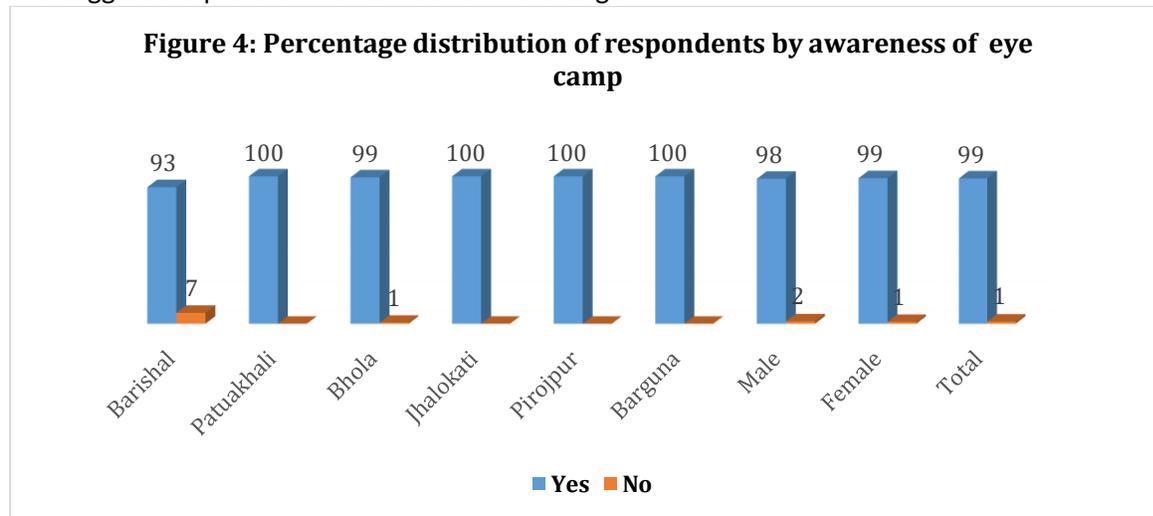
The participants highlighted their experiences that the cataract patients should do medical/ pathological examinations before they go for surgery. However, in some cases, the date of surgery of diabetic patients are rescheduled, if the patients are found with high level of sugar, giving them treatment of lowering sugar level to make fit for the surgery. Dark spectacles and some medicines are given to the patients after surgery. It is noteworthy to state here that cataract surgery is done free of cost in hospitals.

### Knowledge about Refraction Error

Majority of the respondents spontaneously mentioned about refraction errors (72.9%) as one of eye problems. However, irrespective of gender, all the respondents are aware that people have to take glasses if they have refraction errors. Slightly more than half of the respondents (53.6%) visited eye camps and among them, 88% went for eye checking, whether they had any refraction errors. According to MIS report, 38,070 adult patients found with URE and provided with prescription of spectacles in 4 years.

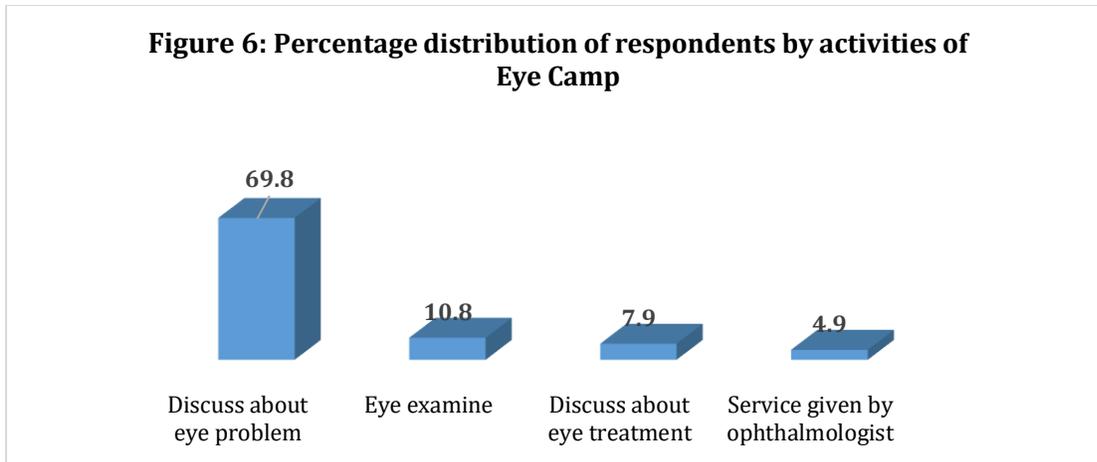
### Knowledge about Eye camp

According to the respondents, the knowledge level on eye camp is found to be universal (99%). Around 89% of these respondents reported to visit any eye camp. It is evident from the views of respondents that respondents who have knowledge of eye camp feel that camp is arranged in a fixed place and gives treatment after they have examined eyes. Some of the respondents mentioned that there are temporary eye camps having floating medical treatment establishment. Besides, these eye camps examine cataract and suggest the patient what to do and where to go.



### Perception about Eye Camp

Respondents were asked about the activities of eye camp, 69.8% of the respondents described the eye camp as “they discuss about eye problem”, 10.8% as ‘a camp to eye examine’ etc.



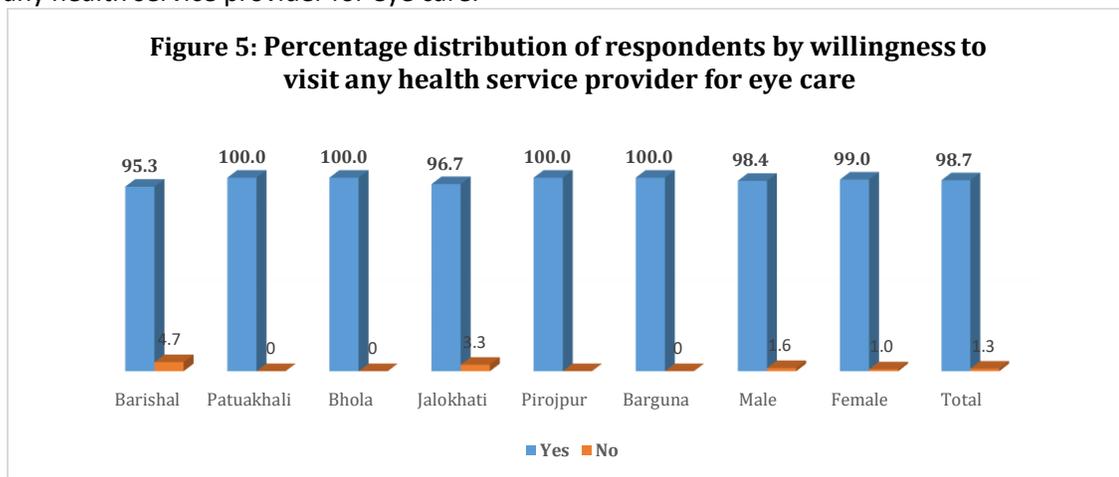
Majority of the FGD participants cited, eye camps are organized in this region from time to time, especially in government medical college and Islamia hospitals. The patients are given primary treatments with prescriptions and necessary medicines at discount price. The participants have expressed a clear and positive views on overall activities on eye camps. They informed that eye camps are often organized in different institutions including Islamia Eye Hospital in this locality.

### Knowledge about Cascade Training

Sixty-three percent of the respondents reported that they know about cascade training. Of them, 84% mentioned to have attended cascade training. Further, 90% of the aware respondents mentioned that the main activities of cascade training are to discuss about eye problem, treatment and examinee.

### Attitude for Seeking any Health Care

Most of the respondents (98.7%) have positive attitude and only 1.3% have negative attitude toward visiting any health service provider for eye care.



The reason behind this positive attitude is higher level of knowledge on eye health care. Respondents had opportunity to get educated on the eye problem and as a result, more understanding and better attitudes develop towards availing eye care services. Qualitative findings showed that having higher level of

knowledge of eye health and its consequences has propelled them to avail eye treatment and to visit service providers as they know about actual symptoms and consequences.

Both male and female have better attitude towards the seeking of eye care from any service providers. However, FGD participants expressed that sometimes they have to wait for days to visit the service providers as there is no one to accompany them to visit centers. Financial problem and communication problem are two issues that impede them to visit centers.

### Practice of Eye Care

After the intervention, the treatment seeking behavior seemed to be satisfactory among the respondents. According to the survey, around 66.8% of the respondents have reported to receive any sort of eye care services from the center either public or private. 14.8% of the respondents have identified cataract with surgery and another 14% of them have identified cataract without surgery. Only 4.4% of the respondents didn't received any eye care services from the service providers. The rate of not seeking any service related to eye care is found to be high in Jhalokhati (12.5%).

**Table 3: Percentage distribution of respondents by receiving eye care services**

	Barishal	Patuakhali	Bhola	Jhalokati	Pirojpur	Barguna	Male	Female	Total
Has received Eye health services	53.3	77.3	50.7	67.5	67.5	84.7	65.9	67.7	66.8
The cataract has been identified and operated	26.7	11.3	25.3	9.2	9.2	4.7	16.4	13.1	14.8
The cataract operation was not performed	16.0	8.0	24.0	10.8	15.8	9.3	12.7	15.5	14.0
Did not receive any Eye health care	4.0	3.3		12.5	7.5	1.3	5.1	3.7	4.4

### Expenses for Treatment

Moreover, 86% of the respondents have spent BDT 2500 – 5000 for general health whereas, 66.4% of this amount for up taking eye treatment in the last one month. According to the participants of FGD, most of the respondents mentioned that they can realize the importance of eye in their regular life. Therefore, they always try to seek any sort of eye services when needed.

**Table 3: Percentage distribution of respondents by expenditure for any service related to health (%)**

	Expenses for health	Expenses for eye health
No expense	3.1	
Up to Tk. 2,500	86.0	66.4
Tk. 2,501-5,000	9.8	19.7
Tk. 5,001-7,500	0.2	3.9
Tk. 7,501-10,000	0.7	4.5
Tk. 10,001-15,000	0.2	2.2
Tk 15000+		3.3

Besides, they priorities public hospital first for treatment. Most of the cases they visit Barishal district hospital (Sher-e-Bangla Medical College and Hospital), Patuakhali Medical College and Hospital, Borguna Sadar Hospital etc.

#### 4.4 SOURCES OF INFORMATION ABOUT EYE HEALTH

Sources of information about eye health and different project activities varied amongst the respondents. Miking was found to be the main source of information regarding eye camp (95.5%) and cascade training (92.4%). Besides, respondents also indicated word of mouth as a potential source, such as from family members (67.3%), neighbors (66.3%), and relatives (57.8%). Few of them mentioned to know from NGO workers (13.6%) as a medium of receiving information about eye camp. The sources of information about cascade training is found to be similar to eye camp.



In addition, when respondents were asked about different sources of information on eye health, respondents mentioned neighbors (77.9%), family member (73.8%), relatives (69.8%), cascade training (59.4%), doctor/hospital (57.7%), eye camp (52.2%) and media (46.1%).

With regard to the question, ‘Do you have enough information about eye health care?’, most of the respondents (78.1%) felt they have enough information on eye health. Slightly more than one-fifth (21.9%) felt they did not have enough information about eye care. The participants who reported not having enough information about eye care felt they would like to have more information on prevention (34.1%), treatment (31.4%), signs or symptoms (17.5%) and selected information about complications (17.0%)

**Table 4: Percentage distribution of respondents by source of information about eye problem**

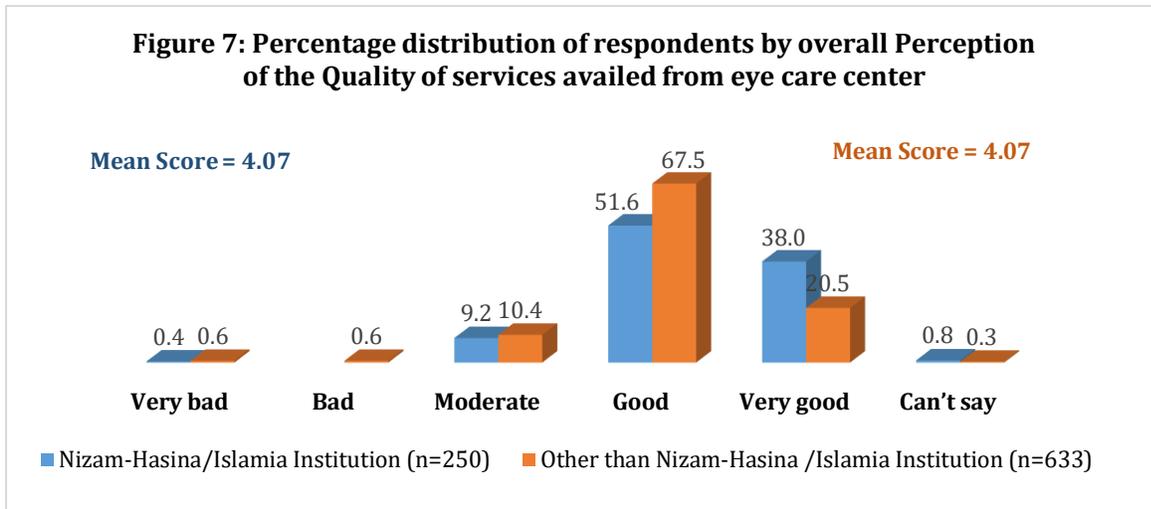
Source of Information	Eye health	Eye camp	Cascade Training
Miking	-	95.5	92.4
Family Member	73.8	67.3	81.9
Neighbors	77.9	66.3	75.9
Relatives	69.8	57.8	71.7
NGOs	26.6	13.6	21.9
Cascade Training	59.4	-	-
Doctor/Hospital	57.7	-	-
Eye camp	52.2	-	-
Media	46.1	-	-

#### 4.5 QUALITY OF EYE HEALTH SEEKING BEHAVIOR, AND EYE CARE RECEIVED (LAST TIME VISIT)

According to the FGD participants, the criteria for good quality of service in any eye care center are basically set by the patient’s perception of involved caring and pleasant behavior from staff and doctors. As per the project activity, FHF is playing an important role in creating awareness through courtyard meeting (cascade) through the volunteers. After examining the eye, FHF representatives forward or recommend the patients to Nizam-Hasina Foundation, Islamia Eye Institute and Sher-e-Bangla Eye Hospital to do further treatment or surgery.

To measure the quality of the eye health care facility and to know the perception of the respondents about the public and private facility center, questions were asked understand the level of satisfaction as a patient on center and service provider, reason behind their decision and whether respondent refer someone to visit the same center or not.

The respondents were asked to rate the eye care center on their perception. The respondents rated them good with a mean score of 4.1 on a 5-point scale (5 equals very good). The rating is found to be similar for both public and private eye care centers.



Moreover, 67% of the respondents (who visited eye care center other than Nizam - Hasina /Islamia Eye Institute and Hospital) perceived that the quality of services availed from the public centers is good, whereas 52% of the respondents who visited Nizam-Hasina / Islamia Eye Institute and Hospital for eye care felt the same.

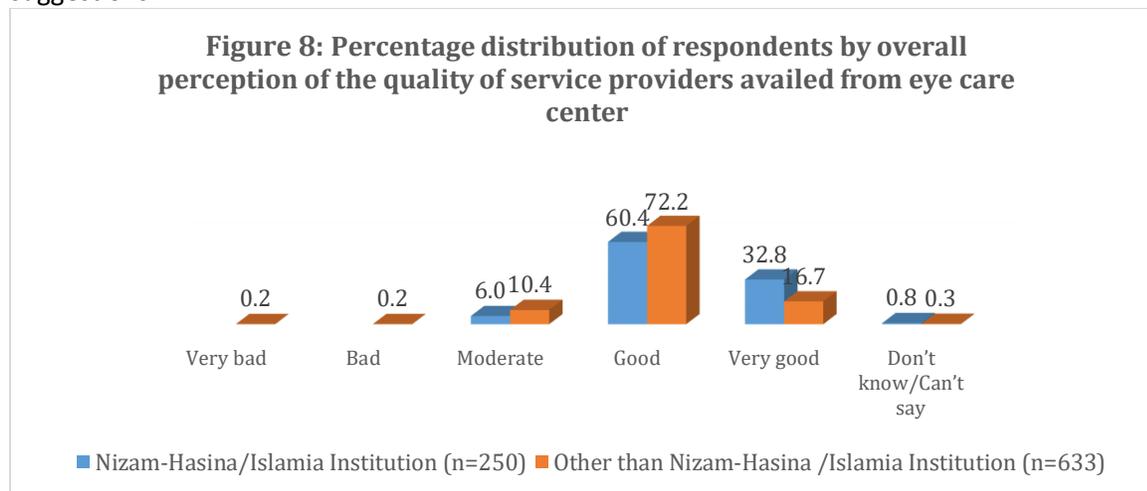
**‘Better treatment’** is the main reason for the high ratings for the both type of facilities. Their initiative and honest effort to provide service, cordial behavior, and satisfaction generated with service – all these factors contribute to high rating.

The participants of FGDs expressed satisfaction on overall treatment on eyes and the service providers' performance and dealings. Initially, services providers gave less importance to female patients due to lack of “awareness”. However, now women and men are getting equal priority for eye treatment. The project intervention created more gender sensitive approaches.



Moreover, eye health centers arranged a separate room for women and **breastfeeding corner** for the mothers which influenced the patients to visit the facilities without any hesitation.

The respondents were asked to rate the quality of services provided by the service providers. Most of the respondents rated their services as ‘good service’. The top three reasons of this perception are: behavior of the doctors and nurse, experienced and skilled doctor and proper treatment along with good suggestions.



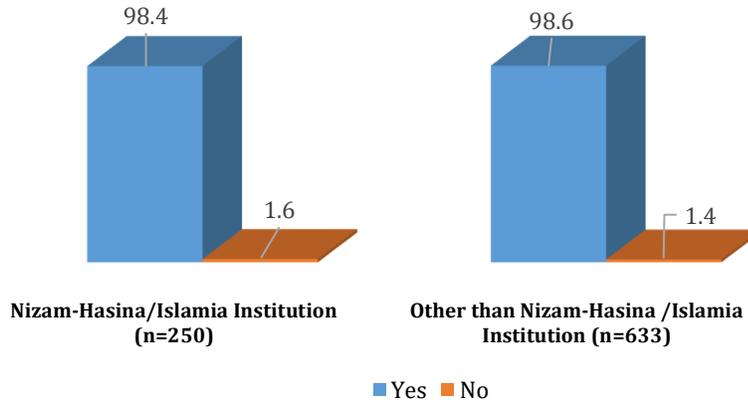
Respondents were asked which factors influenced them to visit the facility, they indicated timely service, distance, affordable cost, free treatment, quality service, availability of all services are the main reasons to choose any center for receiving eye treatment.

**Table 5: Percentage distribution of respondents by factors influenced to receive eye treatment from service centers**

	Nizam-Hasina/Islamia Institution (n=250)	Other than Nizam-Hasina /Islamia Institution (n=633)
Timely service	92.1	76.7
Close to house	82.9	75.7
Affordable cost	51.3	69.6
Free treatment	66.3	65.4
Quality service	38.8	48.3
All kinds of medicines are available	17.5	26.6
Services can be availed all time	28.3	20.3
Behavior is good	25.4	13.6
Free medicine	2.5	10.5

As mentioned earlier, respondents seemed to be satisfied with the quality of services offered by the centers and service providers of the respective facilities. They opined that if they need any treatment, they will visit eye care health center in near future to avail their services. Around 98% of the respondents expressed the same.

**Figure 9: Percentage distribution of respondents by willingness to visit eye care health center in near future to avail their services, if needed**



Around 97% of the respondents who visited any facility other than Nizam-Hasina/ Islamia Eye Institute and Hospital will refer to the same eye care center if anyone ask any suggestions related to eye treatment. Besides, all the respondents who received treatment from Nizam–Hasina/Islamia Eye Institute and Hospital will refer the center to the people who are interested to seek eye treatment. The reasons of recommendation and satisfaction appear to be similar.



According to FGD findings, eye care facilities are providing them services almost free of cost. Therefore, community people could avail good quality health services from eye care centers at a very low cost. Also, respondents mentioned that they will visit the centers

in near future.

As we know, distance plays a critical role while visiting an eye care facility center, especially when the patients are in critical condition. Therefore, the key driver for choosing to visit an eye care service facility is the proximity to their residence. Service quality and free treatment/medicine are other major drivers behind visiting the facilities.



Though the government and other private health service centers were found far away from the surveyed community, a few of the FGD participants stated that they had availed health service from there also.

However, they stated that they were often "ignored" by the government health service providers while they visited for treatment there. On the other hand, treatment cost found to be higher in private health

service centers compared to government health service centers and the surveyed people could not afford it. Therefore, they stated that community people always try to get health services from Nizam- Hasina Islamia eye care service, Sher-e-Bangla hospital facilities due to very minimal cost, well behavior of the service providers and better quality of treatment.

#### 4.6 ACCESS TO AND AVAILABILITY OF EYE CARE SERVICES

To measure the accessibility of the male and female patients in the eye care services, respondents were asked if a male and a female member has same eye problem, how were they taken to hospital. Almost 94% of survey respondents mentioned that both of them will be taken to hospital without delay. The view is found to be similar both in male and female group. However, 4.3% of the respondents mentioned that female will be taken to the hospital with delay.

**Table 6: Percentage distribution of respondents by the Importance of family member to bring them any service centers/doctor**

	Male	Female	Total
Both without delay	94.9	92.9	93.9
Both with delay	0.9	1.2	1.1
Female with delay	3.2	5.4	4.3
Male with delay	0.9	0.5	0.7

Similarly, they were asked if a male and a female member have same eye problem, who will get priority. Around 94% of the will give the same priority to male and female. Moreover, 65% of the respondents felt that both male and female members will be treated at the same time if they need any treatment. They mentioned that both (male and female) have same rights to avail the services.

**Table 7: Accessibility of family member towards any service centers/doctor (%)**

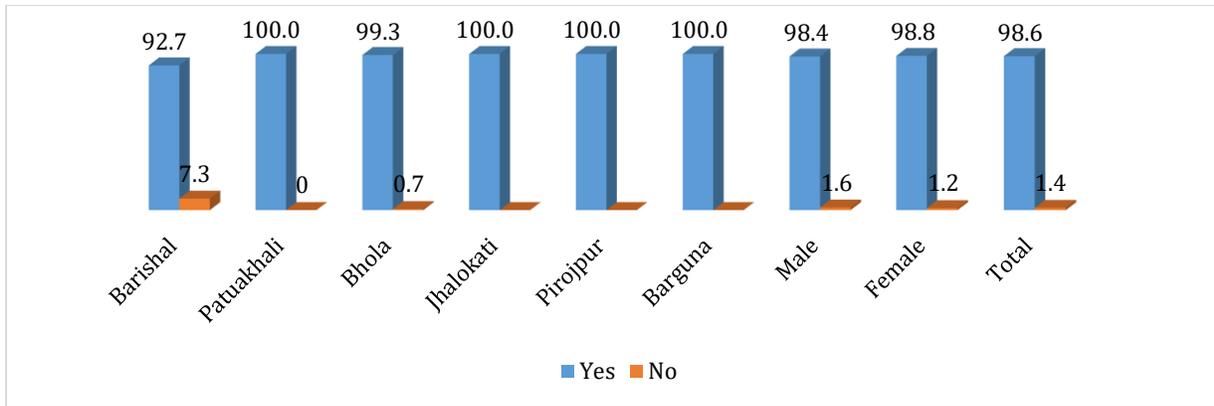
	Male	Female	Total
Same	95.4	93.3	94.4
Male more	3.0	3.9	3.5
Female ignored	0.7	1.0	0.8
Female more	0.7	1.5	1.1
both ignored	0.2	0.2	0.2

In terms of payment for health care expenses, 97% of the respondents intended to expend the same amount for both male and female.

#### Availability of Eye Care Services

Respondents were asked about the place or facility where the eye care are available. Also, whether they can mention the place of eye care services or not. Majority (98.6%) of the respondents can mention the place where they can go for treatment.

**Figure 10: Percentage distribution of respondents by status of knowing the availability of eye care services**



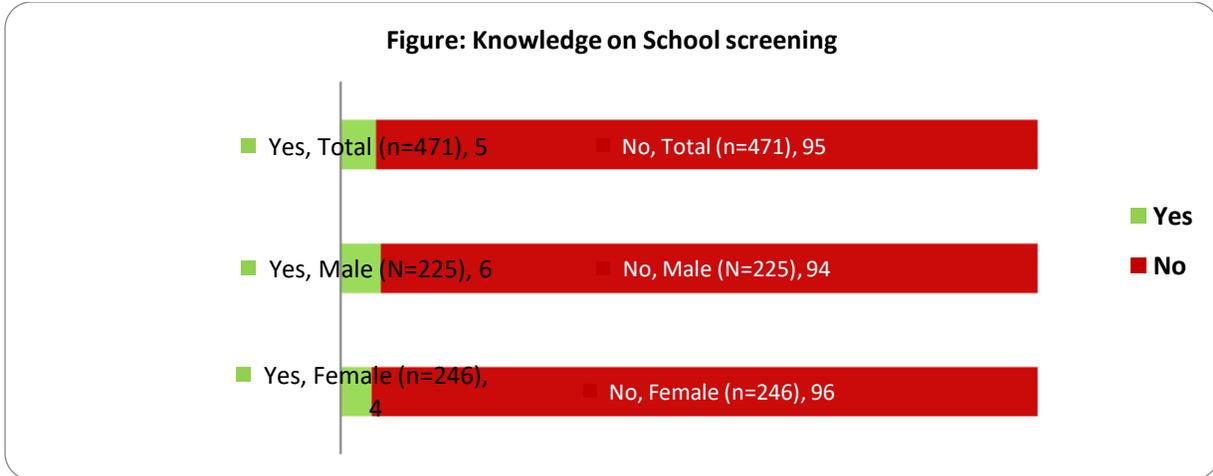
On the other hands, respondents were asked to name the centers where eye treatment is available. Majority of the respondents mentioned the name of the public hospital such as: Patuakhali medical, Sher-e-Bangla Medical College Hospital, Barishal, Pirojpur sadar hospital, Barguna sadar hospital, Jalakhathi sadar hospital etc.

Moreover, they mentioned the name of Islamia medical college and Nizam-Hasina foundation as the place of getting eye treatment. Also, eye camp was mentioned by the respondent as the place of receiving primary suggestion. Those who mentioned the name of eye care facility 98.6% of them has the faith to get proper eye treatment from the respective facilities.

#### 4.7 SCHOOL SCREENING AND REFRACTION ERROR

There are approximately 75 million children (0-18 yrs) in Bangladesh. Refractive error is the major cause of childhood visual impairment in Bangladesh. It is a serious barrier to children's development and directly results in a decrease in attendance at school. Early detection and treatment of refractive error through glasses, contact lenses or surgery is important to ensure a child's normal development and permit enhanced performance of children. Traditionally, the greatest majority of national eye care activities in Bangladesh are focused on the elderly. As a result, the vision testing, refraction, and eye care services available for children in Bangladesh are never in the priority list. This leaves millions of children at risk of developing eye disease, of not having eye conditions detected, therefore not being treated and potentially suffering permanent loss of sight.





Respondents of randomly selected schools (outside of the schools selected for this project) were asked about the knowledge of school screening concept, only 5% respondent knows about it.

### Refraction Error

According to the MIS report, 41,207 students were screened in 4 years and 6,000 students found with URE and provided with spectacles. In Vision Centers at the district levels of the Government facilities 83,264 adult screening was conducted and those found with URE, prescription were given.

The increase of client flow in Government vision centers at district level (especially among Adult) are due to the various factors. Prior to this project, most of eye units in the VC were non-functioning (no equipment, no assigned doctors and nurses, no training on refraction. The SIB Project supported I) refurbishment (renovation and equipment) of VC ii) advocated with the administrators (Upazila Health and Family Welfare) Office) to assigned doctors and nurses in VC, iii) and provided them with training. Once the VC was ready, later community demand was created (miking, uttan boitak (courtyard meeting) cascade training, folk drama, basic orientation on eye care provided to field health officers) Although these are mentioned in different chapters of the report, we will add this para into the text under VC.

However, only 2312 children were screened. In the government facilities only prescription were given and no spectacles were provided. One of area that needs to enhance is the awareness at the community level for children to have easy access at VC and secondly, if only prescription is to be provided, it is very likely that the patients will go to optical shops to purchase the spectacles. Thus, the next project should have the provision of providing spectacles free of cost at the vision corners of the government facilities.

**Qualitative Findings:** The teachers and the students played as a catalyst for changes in the households. The students “educated” their parents on the importance of eye care services. They learned from their teachers. Many of the teachers are the members of the steering committees. They shared the ideas and knowledge what they learned from the FHF partner NGOs and health workers and motivated their parents.

**I came to know from my teacher about cataract surgery ... my mom got a new life!**

*My mom could not see well. She was having this problem for few months, maybe for a year. She was saying this to us for long. I was always depressed. She could not take care as before, doing household chores. To be honest, due to financial crisis, it was not in our priority (taking to the doctor). I was thinking will she be blind one day? I know many people who become blind. So painful to think of it.*

*Other than my schoolteacher, no one told me about the possibility of the cataract surgery, which is so easy and safe. One day I came to know from my teacher about the availability and possibility of eye treatment for my mom. He told us about a meeting on eye care to be held in our locality. I was curious and discussed with my dad. We attended that outreach camp meeting. After the meeting we discussed with one lady (from the NGO health worker/volunteer); she explained all about the possibilities, including the surgery, if needed. We received counselling and information regarding availability of services including costing helped us making the decision. She gave positive hope, very much assuring! Initially, my mom was bit nervous and worried. We too. The lady also spoke with my dad. I insisted my mom. We were motivated and went with her at the designated clinic for cataract surgery. My mom is completely well now, and she can see "better" than before. She is like any other mom now. My mom is happy. How happy she is only God knows. She got a new life!*

Afroza\*, age 16, female student at Pirojpur  
(\* not the real name on ethical reason)

#### 4.8 A COMPARISON: BASELINE VS END LINE SURVEYS

The comparison between baseline and end line shows that the project has earned remarkable success in raising awareness and improving knowledge on different eye health care issues which were found to be very low at the outset of the project. The table below shows that awareness of places where curative care is available, if not treated in time one may suffer from blindness and some eye problem can be prevented are nearly universal among respondents. Also, knowledge about common eye diseases has found among significantly higher numbers of respondents in end line compared to baseline. It seems that respondents now (last visit-on average, 1.5 months before) visit eye care facilities more frequently compared to baseline (last visit-on average, 4.5 months before).

## SUMMARY FINDINGS

Following summary table shows the incremental changes of major progress indicators, observed between the two studies:

Comparison between Baseline, Midterm and End term level of awareness					
Progress Indicators	Indicators	Baseline	Mid term	End line	Compared with Baseline
<i>Measure the progress, outcome and the achievement of the project in terms of expected results</i>					
Building awareness in terms of knowledge of symptom and treatment	Cataract	16.5	88.7**	92.4**	Increased
	Refractive Error	56.6	81.7	83.4**	Increased
	Glaucoma	1.1	3.8	16.9**	Increased
	Chronic Dacryocystitis	14.3	36.3**	35.1**	Increased
	Corneal Scarring	-	7.4	14.9**	Increased
Knowledge of eye problem	Refractive Error	56.6	60.9	76.2**	Increased
	Cataract	16.3	47.7**	72.9**	Increased
Knowledge about preventative measures against blindness	If eye problem not treated in time you might go blind	45	99**	99.4**	Increased
	Some eye problem can be prevented	37	85**	97.4**	Increased
	Curative care is available	33	82**	100**	Increased
Knowledge of eye camp	Awareness	17	77**	99**	Increased
	Activities	11	65**	89**	Increased
<i>Cataract treatment services and refractive error</i>					
Knowledge about measures of treatment	Cataract	42	86**	86**	Increased
	Refractive error	66	75	75**	Increased
<i>Aware of Eye Service Providers and Eye Camp</i>					
Aware of any eye service providers			94.3	98.6	Increased from MTR
Aware of eye camp			22.9	60.4**	Increased from MTR
Attended eye camp (those aware)			65.7	88.8**	Increased from MTR

\*\*Significant at 95% level of confidence

However, among the marginalized, ethnic and indigenous groups the awareness for cataract and RE is 76% and 73%

## CHAPTER 5

### WOMEN’S ‘CHOKHER ALO NETWORK’ (WOMEN – CAN)

Chokher Alo means “the light of eyes”. Women’s “Chokher Alo Network” (CAN) is an innovative endeavor of Fred Hollows Foundation to establish women-led eye care enterprise which will offer basic eye care services to local community members and help to reduce cases of vision loss and avoidable blindness, caused by Refractive Error (RE).

The project is in trial phase now. After the trial phase, if required, the model will be modified as per lessons learned and replicated across the country and beyond. This model of care has been shared with prospective donors such as Chemonics (recipient of USAID funds to work in Maternal and Child Health Projects) and has generated tremendous interest.

The Goal of this project is “To Reduce Vision Loss caused by Refractive Error” and is aligned with The Foundation’s Strategic Goal (2019-2023) which states that “Effective refractive error prevention and treatment is accessible to all”. The project is aligned with the National Eye Care Plan of Bangladesh as well as DFAT’s development strategy of gender equality and women empowerment.

<i>Vision Center</i>
<p>Vision centers are public facilities at the sub-district level. FHF initiated a pilot innovation of the RE business model that namely the Women CAN, is empowering women entrepreneur in the eye care sector. There are 25 Vision Centers, are functioning and FHF receives data every month, however it has been observed that there is a nearly 25% huge turnover of medical and technical personnel at these vision centers and constantly training/refreshers needs to be provided to new comers.</p> <p>The Eye INGO Forum (FHF, Sight Savers, CBM, Orbis, HKI etc) advocated to the government the importance of having a functioning VC at the sub-district level. Sheikh Hasina, the Honorable Prime Minister of Bangladesh took this initiative personally and Vision Centers were inaugurated in 200 subdistricts (out of 464) all over the country. The Refractionists were being trained by Aravind Institute (India). This initiative has been taken at the later part of 2019.</p>

The FHF Bangladesh is currently implementing this initiative as part of SiB project in Bakerganj. A group has been formed including seven women. The foundation trained these women on small-scale business management, human resource management and financial bookkeeping, necessary to run their entrepreneurship. The Foundation provided them with basic eye-screening equipment such as retinoscope, trial lens box, Snellen chart etc. as a onetime contribution.

The CAN initiative started operation since last November. As a part of the trial phase, the foundation decided to conduct a small-scale survey to find out the reach and effectiveness of the initiative among the community people. A total of 30 community people were selected randomly and interviewed. The survey was pen and paper based, and 15 questions were asked to the respondents. Most of these questions were close ended.

All of the interviewed respondents were females. Out of 30 respondents, 10 respondents passed SSC, six respondents studied up to primary level and seven up to class IX. Two respondents had graduation level education and four had post-graduation certification. One respondent had HSC certification. Most of these respondents were housewives (23 out of 30) and all of them were married.

Majority of the interviewed respondents (70%) claimed to have awareness of CAN network. The main sources of the awareness were found to be neighbors and members of CAN network as mentioned by 53% of the aware respondents for both cases. Besides, 43% respondents mentioned to have become aware of the network from family members.

The aware respondents could correctly mention the activities of the network that included eye screening (67%), counselling about eye (57%) and selling spectacles (63%). Eleven respondents out of aware 21 respondents informed to have received services from the network. All of them took eye screening service followed by counselling about eye (9 out of 11) and buying spectacles (5 out of 11). Four out of 11 service recipients met network members for one time. Other recipients met members for multiple times such as two recipients for two times, three for three times and two for four times. The respondents had given some suggestions about the activities of the network. 15 out of 30 respondents stressed on necessity of availability of doctors on regular basis. Besides, seven of them asked to execute awareness raising campaign. Other suggestions included presence of skilled doctors, providing quality service, availability of modern equipment etc. were mentioned by few respondents. The respondents were asked about eye diseases that they were aware of. Except one respondent, all of them could mention at least one eye disease. Twenty-five out 30 respondents mentioned cataract followed by blur vision (11 out of 30), dimness of vision (10 out of 30) and eye becomes red (7 out of 30).

**Table 9: Eye disease mentioned by respondents (count)**

	Count
Cataract	25
Blur vision	11
Dimness of vision	10
Eye becomes red	5
Suffer from eye pain/burning sensation	4
Suffer from allergy/eye itching	3
Watery discharge from eye	3
Retinopathy	1
Suffer from conjunctivitis	1
Do not know	1

The respondents were asked about services centers that provide eye health care and 25 out of 30 respondents mentioned Sher-e-Bangla eye hospital closely followed Islamia Eye Institute and Hospital (21 out of 30) in this regard.

**Table 10: Service centers mentioned by respondents (Count)**

	Count
Sher-e-Bangla eye hospital	25
Islamia Eye Institute and Hospital	21
Grameen GC eye hospital	8
Patuakhali Medical college	7
CAN network	4
Do not know	1

## CHAPTER 6

### END LINE EVALUATION

**To what extent did this project enable the various groups of the target population (including women and marginalized groups) to access eye health services in terms of gender equitable service delivery, compared to before the project started?**

According to baseline report, there has been widespread eye health problem in Barishal. Women are the worst sufferers of eye diseases. The prevalence rate among women and men was 15.3% and 11.4% respectively. The study also mentioned that about 2.1% of the population in Barishal suffers from cataract, 51.5% of whom are women. Similarly, 70% of chronic Dacryocystitis and 55% of refractive errors were reported by women. Diseases that lead to blindness like Glaucoma, Corneal Scarring, and Diabetic Retinopathy etc. are more common among women than men.

In addition, the report suggested that marginalized population also suffered different eye diseases and even from blindness because of lack of proper treatment. Therefore, the project has given special focus to create awareness and provide eye care services to the women and marginalized population of Barishal Division.

The project ensured gender friendly environment in the facilities, organized eye camp in remote areas in order to provide eye care services to marginalized population, developing and administering communication campaign in the areas which are easily and frequently accessed by women etc. As a result, number of patients sought eye treatment in the eye camp and facilities has been increased noticeably.

The data from the project MIS report shows that number of eye screening, treatment of refraction error and cataract surgery have been well passed the respective targeted numbers one year ahead of project's lifetime.

**Table 11: Number of eye screening, treatment of refraction error and cataract surgery Planned vs. Achievement**

Category	Planned			Achievement			Change in %
	Male	Female	Total	Male	Female	Total	
<b>Total Screened</b>	165,000	210,000	375,000	225,217	300,411	525,628	40
<b>Total Refraction</b>	29,040	36,960	66,000	37,680	54,050	91,730	39
<b>Cataract Surgery (NGO Partners)</b>	11,000	14,000	25,000	10,949	14,051	25,000	0
<b>Cataract Surgery (Govt. Hospitals)</b>				1,854	1,877	3,731	

\*Data used in this report are taken from Project reports/ MIS of FHF

Moreover, the project executed different activities targeting some specific groups such as minority communities, women pottery worker, differently abled people, transgender, students, rickshaw pullers etc.

### Who is still not accessing these services, and why not?

The project did not target any specific groups of people rather targeted community as a whole, therefore people with **physical disabilities** (differently abled) or **transgender** are not getting project-initiated services yet. The reasons can be attributed to the fact that people of these two groups are not easily available and it requires **separate initiatives** such as contacting NGOs who are working with these people, providing training to the service providers on how to deal with these people, to create demand of eye care services among them etc.

These initiatives were not included in the project implementation plan since the project as mentioned above targeted community people especially women and marginalized population as a whole. However, the project executed some of its activities such as eye screening among transgender and differently abled people on pilot basis.

### Is the cost of cataract within the affordable price for cataract? Are the available services accessible and gender sensitive?

Both government hospitals and partner hospitals administer cataract surgery in free of cost. However, a rough estimation suggests that the cost of cataract operation is BDT 3500/operation. Therefore, project reimburse BDT 1000/operation to the partner hospitals. This reimbursement facility does not applicable for Government hospitals. Since, the service is free, it is accessible to all.

**Training** is regularly provided to health workers on gender equitable service delivery. **Gender sensitivity training** and workshops have also been held for doctors and nurses of FHF's partner hospitals. Therefore, the services offered by both public and private hospitals are gender friendly as opined by the beneficiaries and stakeholders.

### What are the barriers in the uptake of cataract and RE treatment and management with regards to gender equity?

The project has conducted a KAP survey to find out barriers to uptake cataract and RE treatment. The survey has identified a number of barriers in accessing eye care services. A key finding from the survey was that women faced more barriers in accessing eye care services compared to men.

According to the survey findings, Barishal being an economically poor region, poverty is a major barrier in uptake of eye care services. This barrier is more acute among the women population. In most of the cases, women have to depend on their husbands/parents or other male family members to manage treatment cost. In addition, in absence of **gender equity** in the family, male members usually get precedence in case of spending money for treatment.

Besides, other notable barriers included lack of information about eye care services, distance of health care service centers, fear of income loss (applicable for men) etc.

The environment of the service centers was another major barrier especially for women to uptake services. These barriers were discomfort in the unisex waiting area, absence of infant nursing space and lack of gender sensitivity from the staff.

The project identified some religious barriers also to uptake eye care services. In case of lower caste Hindu community, *Dalit* - 'untouchable' social status was a major barrier to avail eye care services. On the other hand, conservative Muslim families do not allow their female members to be examined by the male doctors or health workers.

**To what extent has this project provided support to improve gender balance in the workforce at all levels of eye health in the project area?**

The project has organized **training sessions** on different issues such as gender equitable service delivery, OPD management, SICS, PEC, OT management, equipment maintenance, referral system etc. These sessions were focused on specific issues including importance of gender balance in workplace. Besides, the project has delivered issues of gender barrier to service providers that women faced while up taking eye care services. These two issues prompted service providers to ensure **gender balance** in their facilities.

**Has the training provided to service providers contributed to the development of gender balance in the workforce at facility level?**

Maintaining **gender balance** in the workplace can be considered as the first step to create gender friendly environment in the facilities. Therefore, the project suggested the service provider to ensure gender balance in their respective facilities so that women can get services from female health workers or physicians in most of the cases. The service providers have taken the following steps to maintain gender balance in their facilities:

- Assign a gender focal person in the health facilities to provide additional support for female beneficiaries.
- The partner NOGs have assigned a paramedic as a gender focal person in their respective facilities
- Advocate the Divisional Director Health and Civil Surgeon of every districts to deploy of one nurse for eye OPD exclusively.

**Has the project contributed to any policy changes in the workplace in regard to gender equity?**

To maintain **gender equity** in the facilities, the project was able to bring some policy changes in the workplaces. These include:

- Separate post-operative wards have been allocated for women by hospital administration.
- Electronic token system has been introduced in the public hospitals to avoid pushing female patients in order to throw them out of queue by male patients
- Develop a system so that doctors can see female and male patients alternatively that ensures a more gender equitable service delivery.
- As a part of creating women friendly environment, facilities have arranged separate seating arrangement for women, nursing corner for women, separate toilet for women etc.

**To what extent has the project aims to improve service modalities to minimize the gender gap in access to services been achieved? To what extent are the service providers now providing gender sensitive service?**

The project's main goal is to provide **quality, sustainable** and **accessible** eye care services through the implementation of gender sensitive programming approaches. To achieve this goal, the project first identified gender-based issues that impeded women to visit the facilities. Once the issues were identified, the facilities took the following steps to minimize the gender gap:

- Encouraged staff to go to the field and interact with female beneficiaries
- Develop gender training for all providers and ensure flow down. Primary Eye Care (PEC) training has been very gender inclusive and very interactive.
- Public partner hospitals visited frequently by rural and poor women mostly, now have separate seating arrangements for women in the Eye Out-Patient Department (OPD) to make their waiting time more comfortable.
- Separate post-operative wards have been allocated for women by hospital administration.
- Electronic token systems have been introduced in the public hospitals
- Public district hospitals provide infant nursing corners in the eye departments. Elderly women can use these corners if required.
- Assign a gender focal person in the health facilities to provide additional support for female beneficiaries

### **To what extent have the training modules developed on gender equity contributed to an increase in women's access to eye health?**

The project has developed **training modules** based on basic eye care and gender equitable service delivery. Medical Officers, Sub Assistant Community Medical Officers (SACMO) and service providers from NGO partners participated in the trainings.

As stated in the project report, the follow-up monitoring visit after the training ensured that the service providers' behavior towards the female beneficiaries have been changed positively. The cascade training guidelines were also revised to include gender sensitive eye care messages. Gender sensitive orientation was provided to the staff of eye care facilities. Staff were encouraged to interact with female beneficiaries at the field level to ensure they are aware of services, such as breastfeeding corners, that are now available at the facilities.

### **Has the project contributed to understanding of the barriers to accessing eye care services for women in Barishal? If so, what have been the most effective methods of being able to understand these barriers?**

The project has conducted a KAP survey before designing the project's activities. A gender analysis has been carried out based on the collected by the survey. This analysis enabled the project to understand the barriers faced by the women. Besides, the project team also visited eye health care service facilities and government hospitals and two partner hospitals. These visits identified that the environment of the facilities was a major barrier to uptake eye health care especially for women. Both gender analysis and on-site visit have been effective to understand the barriers faced by women to access eye care services.

### **How were solutions developed and trailed to overcome these barriers?**

Project has developed some innovative measures to mitigate the barriers. One of these measures was executing social and behavior change communication (SBCC). Effective SBCC is essential to arm the public with tools and knowledge for apt response to eye health related issues and behavior change. Based on information generated from the KAP study and Gender Analysis the project team prepared interactive materials such as pictorial booklets, training curriculum, Short Message System (SMS) messages, etc. that incorporate messages on eye care for women, importance of early cataract surgery of women to be used by the health workers and volunteers in clinics or communities. The project also developed interpersonal communication (IPC) materials for workshops, meetings, seminars and community awareness sessions for

male, family members, community members, women groups (microcredit group or vulnerable women groups of LGRD), and community volunteers etc.

The project developed communication activities and materials for men and family leaders. Men and family leaders are key decision makers. Since men often have better access to a family's financial resources and make the financial decisions, advocacy and counselling were administered directed at them as well: the husband, if the woman was married, or an eldest son, if the woman was widowed. The project reached out directly to these audiences with attractive campaigns that encourage their participation to take care elderly women. Health care workers or community level volunteers encouraged to speak to community people to raise the awareness about the needs of women.

The project took an initiative to address a key finding from the mid-term evaluation and the gender workshop that transportation acts as a key barrier for the women for the uptake of eye care service. On a pilot basis, an initiative was undertaken in two sub-districts (Nalcity, Rajapur) to help provide transport facilities to the patients. This innovative approach not only helped to increase the patient flow of Jhalokathi District Hospital but also strengthened the referral system in place.

To overcome the barriers faced by women in facilities, the project suggested the service providers to renovate the facilities. This renovation included seating arrangement for women, establishing breast feeding corner, introducing electronic token system and so on.

#### **Where there any solutions/ interventions that were less successful than others? Why?**

None, all of the project-initiated services worked successfully.

#### **To what extent has the project contributed to understanding the barriers to accessing eye care services for women in Barishal?**

Through KAP survey and gender analysis the project has identified barriers especially faced by women to up take eye care services. These barriers can be divided into four categories. These are socio cultural, financial, access and lack of SBCC services. These barriers under each category have been mentioned below:

##### **Socio-Cultural Barriers**

- Women had less access to information sources.
- Women are not allowed to travel alone
- Lack of knowledge
- Eye care needs of women are neglected, in many cases by women themselves.
- Seeking health care is not the priority for the marginalized and indigenous groups.

##### **Access Barriers**

- Lack of regular outreach services at village level
- Health provider attitude and low motivation levels as eye care is not their mandate.
- Lack of skills providers in public sector facilities, private sector (e.g. Pharmacist) and NGOs.
- In general, women seek eye care treatment to the pharmacists or general practitioners who are not skilled enough to diagnose and refer eye related problems to the right places.

##### **Socio-Economic and Infrastructure Barriers**

- Financial constraints
- Women need to depend on male members of the families to manage money for treatment since men often have better access to a family's financial resources.
- There is no place in the health system to ensure women privacy during eye health care like separate post operation theater (POT) for cataract operated women cases.

#### **Lack of Strategic Behavior Change Communication Services**

- Community stakeholders (religious leaders, schoolteachers and elected leaders) are not adequately reach with eye health information to get their support
- Low penetration of eye care related community based SBCC like Interpersonal communication (IPC), group meetings, and other community events due to human resource shortages/gaps
- Poor knowledge about cataract: curable, one doesn't have to live with cataract cause blindness, only cure is surgery, surgery is available and affordable in district level.
- Lack of knowledge about dos and don'ts after cataract surgery (don't rub your eyes, see a doctor if eye is red etc.) and about eye health.
- Local women organizations, groups, youth groups, treated women and local elected women are not empowered with eye care related information and services.

#### **How effective were the awareness generation activities in terms of increasing eye healthcare related knowledge and changing eye care seeking behaviors among women?**

The communication campaign executed across all project locations and gender sensitive eye care messages were disseminated within communities to increase information and awareness. This initiative increases eye healthcare related knowledge and eye seeking behaviors among women that are evident from the MIS data and end line survey data. The MIS data show, till 2019:

- Total screening 525,628 (225,217 male, 300,411 female), target – 375,000
- Total RE 91,730 (37,680 male, 54,050 female), target – 66,000

Total Cataract Surgeries – 25,000 (10,949 male, 14,051 female), with another 3,731 surgeries conducted in government hospitals (1,854 male, 1,877 female), which include outreach screening camps targeting remote locations.

The End line survey data show:

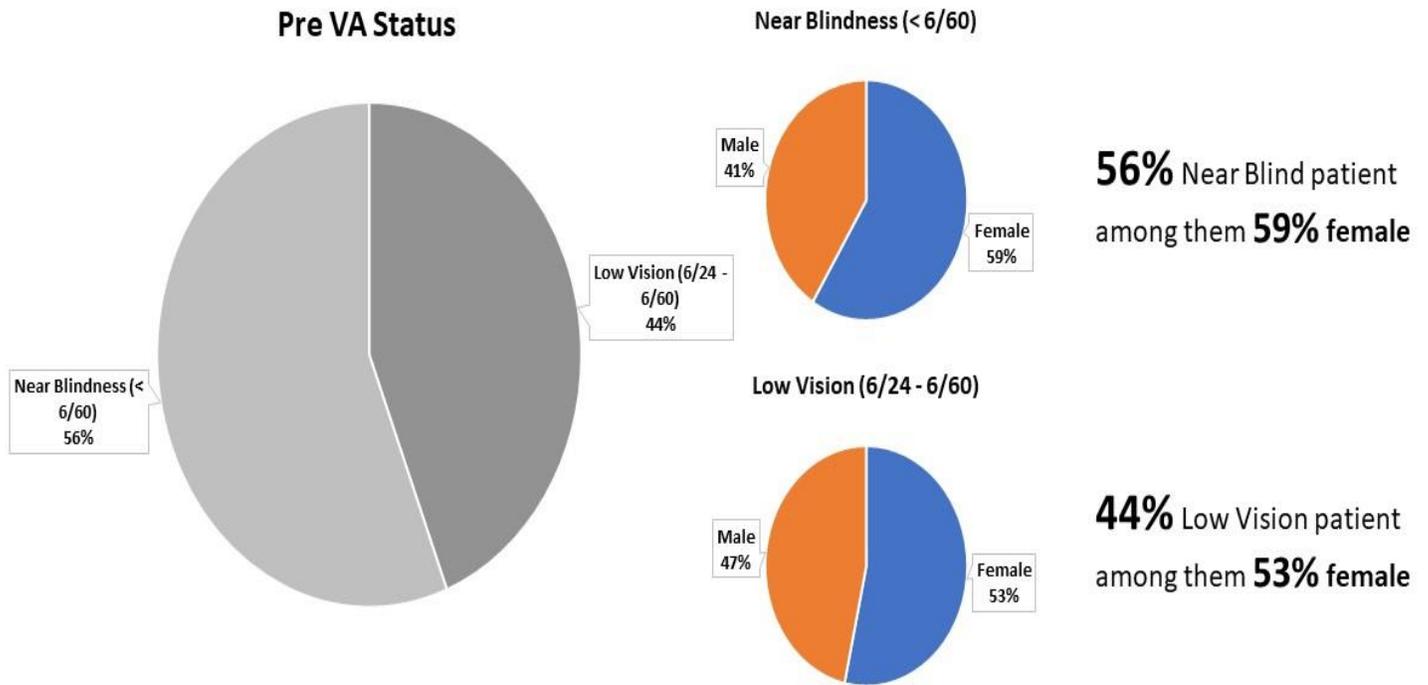
- Awareness of probability of suffering from blindness if treatment is not taken on time is found to be universal
- 100% of the respondents are aware that curative care is available
- Most of the female respondents (89%) are aware of Cataract

#### **How effective has the small incision cataract surgery (SICS) and Gender Equitable service delivery training model for cataract surgeons + surgical team been at improving quality and quantity of service delivery?**

Short term refresher training was conducted on Small Incision Cataract Surgery (SICS) and gender equitable service delivery among service providers. This training was participated by three (03) ophthalmologists from partner hospitals and 4 government medical personnel (3 males and 1 female). Because of training, the success of the surgeries under this project is quite commendable as 93 % of the patients undergoing surgery have received normal or near normal vision.

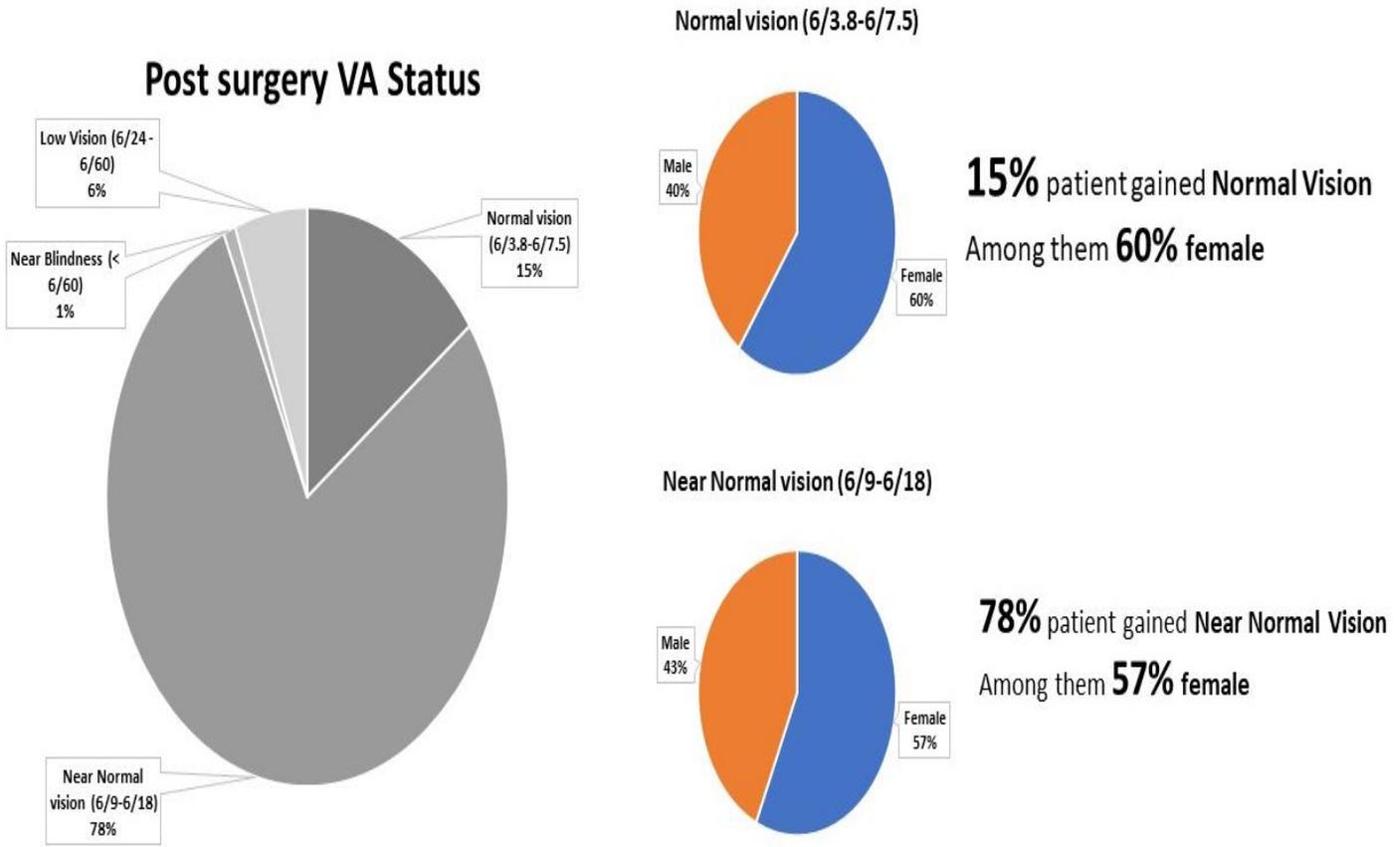
In Pre VA analysis, the MIS data shows that, 56% of the patients were having VA in the Near Blindness group where other 44% patient were having VA grade in Low Vision category.

**Figure 11: Visual acuity analysis, pre-surgery**



But after the surgery VA record (Post VA) showed an impressive achievement. Evidence showed that 15% patients received VA under Normal Vision category and 78% patients received VA under Near Normal category. So overall 93% patients received VA fall under Normal and Near Normal category. The data analysis has been represented. This comparative analysis of VA is the vital evidence of good quality of service delivered by partners.

**Figure 12: Visual acuity analysis, post-surgery**



Besides, to increase the success rate of the surgeries FHF emphasized on ‘Post-operative Dos and don’ts’ in communication campaigns and a video clip was included showing “Post-operative Dos and don’ts” in the campaign.

**How effective are the trainings provided through the project at: a) Improving individual technical skills of partner hospital staff b) Improving individual technical skills (equipment handling) of UHC staff in PEC**

The equipment and infrastructure of government partners are constantly monitored and have been renovated according to needs. To operate equipment project provided adequate training to the staff.

Also, project provided screening training to the UHCs staff. Besides, five (05) ophthalmologists were trained and provided with on-the-job training on cataract surgery and best practices in surgical management, surgical quality assurance and post-operative care. 29 nurses from government and non-government partner hospitals on OT management and gender equitable service delivery. Short term and refresher training (on the job) were provided to 91 MO/SACMO/MA from partner hospitals on basic eye screening assessment, OPD management and gender equitable service delivery. As per the service providers, these trainings are proved to be successful since technicians of hospitals and USCs are now handling equipment more confidently. They are able to repair problems of equipment that may cause termination of services temporarily in the shortest possible time.

### **Has understanding of barriers to accessing services informed project activities through IEC materials?**

Based on the identified barriers the project has delivered different messages such as 'seeking timely eye care is women's right', 'operation is the only way to cure cataract and after operation you will be able to support your family activity', 'without man's help, women cannot perform cataract surgery', 'DR is blindly disease, elderly women have basic right to seek and avail cataract operation' etc.

### **To what extent has the project IEC activities increased awareness among women of eye health and service availability?**

Project organized awareness raising activities in remote areas prior to scheduled eye camps in order to increase demand (especially among the female population) and promote service uptake. The communication campaigns which were more easily and frequently accessed by women, with activities including display of billboards and miking (public awareness using loudspeakers). In addition, for those who underwent surgery, post-operative instructions were provided to patients and their relatives via video, message board, leaflets and personal counselling. As per donor's feedback signage indicating cost of cataract surgery, spectacles, consumable items and medical tests was displayed during outreach screening camps and in base facilities. All of these activities helped to increase women's participation in eye camp, health facilities and also, increased number of women also performed cataract surgery. The project MIS data and end line survey data also indicate the same.

### **Which IEC strategies/messages have been most effective?**

The folk drama is proved to be the most effective one. In the folk drama, messages are delivered through describing real life event. Therefore, the audience can easily understand the messages and messages do not wear off quickly from their memories.

### **How effective has the project been at strengthening the health system to deliver eye care?**

They project has successfully implemented the following activities to strengthen the health system to deliver eye care:

- Supporting Partner Hospitals and UHCs with basic equipment and infrastructure facilities to ensure desired service delivery environment especially for women
- Establish Referral Pathways
- Strengthening MIS system of partner hospitals
- Establish CSOM System to monitor the quality of the surgeries
- Forming a Divisional Steering Committee to support in project management and coordination among public and private partners and help in implementation of advocacy strategy. This committee strengthened the health system by building horizontal communication and cooperation between private and public health institutions and also built leadership and governance within the health system. It is expected that the committee will be continuing its activities after end of the project life cycle and implementing advocacy strategy such as turnover of trained government service providers, motivation for well-performing doctors, the requirement of hospitals to conduct more surgeries in future.

### **Does the project have any lasting improvements been made for collection (health information, sustainability)?**

Project has supported partner hospitals to develop an effective HMIS system by providing resources and trained staff. This system provides monthly gender disaggregated data on health information of the patients. The project organized training sessions with data entry operators to equip them with proper MIS knowledge. Besides, project established Cataract Surgery Outcome Monitoring System in partner hospitals and the result generated by CSOM is reviewed at regular interval by ophthalmologists.

With regard to sustainability, the project has taken the following initiatives that will expectedly sustainable after the end of project life cycle:

- Communication messages and innovative approaches that project executed has changed attitude and practices of the community people especially women to access eye health services will sustain beyond the project lifetime.
- The initiative of organizing eye camp in the remote areas has increased awareness of necessity to uptake eye health care service among marginalized.
- Building capacity of government hospitals to provide cataract surgeries will help to sustain the project
- Introducing referral system between pharmacies and nearby hospitals will contribute to prompt women to up take eye care treatment from hospitals.
- Providing post-operative instructions for Cataract patients and their family members
- Eye camp for school going children would help to create awareness of necessity of eye health care from the early ages.

### **Do clinics have appropriate equipment that is maintained and utilized? (equipment/infrastructure)**

- Provided Basic Equipment to the partner hospitals to provide quality cataract surgery.
- The project has supported to renovate partner hospitals to develop a gender friendly environment for the patients that includes separate waiting spaces for men and women.
- Nursing corner and Breast-feeding corner has been established in district hospitals and one medical college where lactating mother can breastfeed their babies. This place is also used by aged female patients to rest before and after performing cataract surgery.
- Basic equipment has been provided to all UHCs to execute basic eye health screening and to identify Cataract as well as cataract surgery.
- Also, Basic Renovation has been done in these UHCs to provide eye care services in a gender equitable environment

### **Is there adequate resourcing for eye health in Barishal division?**

The project has taken some innovative steps to ensure adequate resourcing for eye health care in Barishal division:

- Project has established horizontal communication and cooperation between private and public health institution in this division
- Referral system has been introduced to link between pharmacies and hospitals
- Project has trained pharmacists on basic eye care services that in turn increases patient flow to the hospitals
- Basic equipment for cataract surgery is now available in all district hospitals.
- Basic equipment for eye screening is now available in UHCs.

- One nurse has been appointed exclusively for OPDs in each district hospitals. These nurses are trained by the project.
- Data entry operators were given special gender training to assist female patient inside the outpatient department
- The project has taken initiative to reduce turnover of trained government service providers and to motivate well-performing doctor.
- Medical officers, SACMOs and Medical Assistants (MAs) from partner hospitals area now trained on basic eye screening assessment, OPD management and gender equitable service delivery.
- Nurses and health assistants are now trained on OT management.
- The project has renovated and equipped the OPD and OT of districts hospitals.

### **Are there any changes in how easily women can access services?**

The project has taken different approaches to ensure women can avail eye care services without any hassles. As a result, more women availed services than men. The project generated sex-disaggregated shows that till date project has screened 58% women, refraction error 59% and 74% of women availed cataract surgery.

### **To what extent has the steering committee fostered improved management/coordination in the eye health sector?**

The steering committee formed in order to execute project management and to coordinate among public and NGO partners, and help in implementation of the advocacy strategy in future. This committee strengthens the eye health system by building horizontal communication and cooperation between private and public health institutions and also build leadership and governance within the health system. The committee took initiatives to track project updates and also, to share innovative gender strategy that each partner has been tried. The committee advocated to deploy an eye consultant in Barishal Sadar Hospital to replace the retired eye consultant who had worked there previously.

The committee ensured local government involvement beyond the project life and also, supervised different gender sensitive initiatives taken by government hospital, partner hospitals and other health centers.

### **Has the quality of the service delivery improved?**

According to the patient satisfaction survey, overall, 64% respondents were found to be satisfied and average satisfied was 29%. Only 7% respondents showed dissatisfaction. Among female patients this satisfaction was found among 60% respondents. About one third (34%) respondents were not satisfied neither unsatisfied. Only 3% showed dissatisfaction. In the end line survey, around 90% respondents described the service quality of the health centers is good.

## CHAPTER 7

# COMMENTARY ON ACCOMPLISHMENT AND CONSIDERATIONS

Bangladesh is traditionally a male-dominated and male-privileged country. The government in collaboration with international organizations (such UNICEF, UNDP, World Bank etc.) and local NGOs, civil societies and media are working for years to change the culture and behavior toward creating women friendly systems (as a part of MDG and SDG), especially in health and nutrition, education, poverty alleviation etc. The MDG performance is a success story in Bangladesh.

The FHF project (Building Gender Equitable Eye Health Systems in Barishal Division) performance is no exception. Proper planning and execution led the project achieving its output indicators as per logframe/ theory of change. The project was designed in a way to address the barriers facing by the women, especially the eye care services. The driving strategy and mechanism was creating “gender sensitive” approach. As a result of various gender sensitive interventions, the number of female patients accessing eye care services gradually increased, and in the last reporting period (Jul-Dec 2019) the project has reached the goal of at least 72% of the total cataract surgeries for female patients. This is how FHF achieved the 14,051 cataract surgeries being conducted among female beneficiaries.

- To ensure that the eye care services are gender friendly, the service facilities were **renovated** in a gender friendly manner,
- The campaign targeted SBCC/IEC materials were developed to raise community awareness, especially among women,
- Frequent outreach has been conducted in the areas inhabited by marginalized women groups,
- Eye care service providers were educated on gender sensitization approach, they were provided with gender sensitization BCC,
- FHF, in collaboration with partner NGOs, worked in developing a gender equitable eye health workforce,
- Logistic facilities were there, transportation was arranged for female patients unable to travel to hospitals,
- Developed a **gender alternate queue system** which ensured equal access to the Out-Patient Department (OPD) etc.
- Overall, the intervention could create awareness among the women and other family members (including husbands) the importance of availing eye care services. Most of them could internalize the core concept that blindness can be a burden in their families and in the communities all. Early steps can transform them to be an asset of their families.

### REASONS FOR SUCCESSES: WHAT WORKED WELL AND WHY?

#### Seeing is Believing: From burden to an asset

##### **After cataract surgery they will no more be a burden of the family!**

*“Most of those who are blind in the family, such as elderly members or the women are not well treated, rather considered as a burden of their family. This is a quite common picture in the poorer communities, especially in the rural areas and in the urban slums. They are forced to beg. We need to communicate with the people to invest in this treatment. A small investment can save the lives of the people and they will be no longer a burden, rather an asset to their families.”*

This was mentioned by the Union Parishad member (Local government elected representative). He further suggested if this “great” initiative of Fred Hollows is continued with more aggressive communication campaign, this will bring a real benefit to them. It can be a life changing initiative!

Union Parishad member (Local government elected representative)  
(Name was not given due to ethical reasons)

### **No more myths and superstition!**

*People used to say in our villages that if the young girl were glasses “it is a defect”. No one will marry her. I know that I have some vision problem, can’t read well; have headache when I read books for few days. The local doctor once suggested me to go for eye check-up. It was in my mind too. Once I did at our upazila hospital, the doctor suggested to take glass. When I shared that with my mother, she instantly refused my idea. I was very depressed. But one day, I happened to meet one apa (health worker) from NGO at an awareness building event; shared everything with her. She could create awareness among us and our neighbors by providing important information about eye care. She was very nice visiting our house and convinced my mom. She said, “if your daughter uses glass, nothing wrong in it. She will do good in her exam and she will go a long way. She will get a good job. People will know you by your daughter. She will have good income.” All could happen due to that Apa. I am thankful to her. No more myths and superstitions. NGO is like a change maker for us.*

- Nargis Akter\*, age 18, young women (18), Borguna  
(\* not the real name on ethical reason)

## **Social and Behavior Change Communication: The Motivating Driver**

**Cascade information on BCC:** As evident from the FGD, previously community people did not talk much about the importance of eye care, it was “accepted” blindness as an old age complication. As a result, many of the elderly members of the family were blind and became the financially burden. The perception started changing after the BCC intervention of the project. The ongoing behavior change communication (BCC) effort could generate awareness and interest in the program, triggered public discourse on superstition, and now the attitude towards the program is largely positive among all the community beneficiaries, especially the women. The FHF project was a socially accepted program among the beneficiaries and stakeholders. The well-crafted BCC materials and campaign could engage the target audience most. In addition, there were “*uthan boithak*” (courtyard meeting), counselling by the health providers, word of mouth, miking etc. which triggered to wider acceptance and implementation of the intervention.

### **These courtyard meetings are just awesome ...**

*I waited for these “uthan boithak” (courtyard meetings) arranged by Apa (local health worker from the partner NGO and FHF volunteers who organized the meeting). These are awesome, we could learn not only on eye care and how it impacts on our vision, but other essential issues of life as well, such as life and lifestyle, and our health and nutrition. The Apa (health worker) is knowledgeable and friendly. She explained the importance of keeping eye well. I learned what are the eye diseases, more specifically about the cataract (locally called as “*chhani*”). She also mentioned where to get services and how with minimum cost one can get eye care. She speaks very well!*

Shefali\*, age 35, married female (received the services) at Barishal  
(\* not the real name on ethical reason)

**SBCC Materials:** Overall, the knowledge (awareness), attitude and practice (availing services) of the beneficiaries was found to increase manifold (compared between the baseline and end line surveys) and thereby could achieve the project indicators. Communication interventions through SBCC materials such as billboard, leaflet, miking etc. contributed a lot in creating the required behavioral changes. It may be mentioned here that the BCC vehicles such as billboards were appropriately designed showing the picture of ethnic group and in their language, included tribal chief for community awareness. In addition, the mosques and churches were used in communicating the people. The priests delivered sermon during prayers and distributed the leaflets, and similarly, the Imam of mosques announced about the eye camps and outreach centers in Friday prayers.

However, the participants in the focus group discussions (FGDs) mentioned that miking is commonly used for community communication by the government and NGOs, both in rural and urban areas, which is quite effective.

#### **Miking and leaflets are less costly compared to TV soap opera and folk drama**

*According to an NGO stakeholder "For general communication campaign, it is found in different research reports that miking and leaflets are less costly compared to different programs in TV or developing folk drama. Folk drama may be more effective because of its story and contents (songs, humour, acting, messages etc.), may attract more audience, but definitely very expensive. Similarly, TV serial or soap operas are very popular but expensive too."*

Abul Kalam\* age 33, Partner NGO, Patuakhali  
(\* not the real name on ethical reason)

#### **Health workers – the front liner of the campaign**

##### **NGO Apa explains many unknown essentials of eyes ...**

*I never knew how important to us to check up eyes regularly, how it can be infected by various diseases, how it can impact on eyesight and gradually becoming blind. Eyes are the best gift of God, makes us happy, impacts on our body and mind, we can see the world!*

*I have some problem with my right eye for about two years, always it is watery. Embarrassed, my friends used to say that I always cry. I also thought about it, where to go for cure? And whom to ask? Even my parents could not answer all my queries on eye care issues. Moreover, there was the financial issue as well. My friend is facing the same problem. When we talk privately with the NGO Apa after the courtyard meeting, our life become easier. We got all the answers and we got positive energy, "we will be cured soon". Finally, I got all the services and relevant information from my teacher and NGO Apa. I got my eyes checked at school in the self-test area with the help of our teacher. It was a great moment for me!*

Roxana\*, age 15, school student (girl) at Patuakhali  
(\* not the real name on ethical reason)

## An interview with a doctor at Medical College Hospital

### Long-term strategy introducing social and behavior change communication!

The Associate Professor\* (Eye Department), Medical College Hospital stated -

*There is a complete facility for any eye related complication or diseases at our hospital. Fred Hollows Foundation is supporting us. We have got modern equipment. We are thankful to them. A large number of patients visit to avail that services. We are “gender sensitive”, provide services to the female patients without any discrimination. We have trained our staff, nurses, paramedics to be gender sensitive. There were exclusive facilities for the women, focusing gender friendly (such as breast-feeding corner, separate line for female etc.) and this information was shared to increase female patient flow.*

*We also motivate the parents that using glasses is not any “defect”, it is a natural process of life. It is believed (superstition) that if any girl use glass, she may have problem in getting married. We try to educate the parents that if their daughters use glasses, they will be able to study well and will have better result. And thereby will be an asset to their families.*

*Moreover, they should be more caring in bringing the senior citizens of their families for cataract surgeries or any other complications and eye problems. These members need support from their children, in return, they can also support their families instead of becoming financial and physical liabilities.*

*I suggest, there is a need for continuous Social and Behavior Change Communication (SBCC). Changing behavior is a long-term process.*

Associate Professor\* (Eye Department), Medical College Hospital  
(\*Name was not used on ethical reason)

### The health worker took us to a doctor for eye disease ...

*I had vision problem. Can't read well. I went to see the doctor at the outreach camp organized by NGO for suggestions. Later he took us to a doctor at the district hospital for follow-up where I got free treatment. I got glasses. I am fully cured, and I can read.*

- Sobhan Miah\* age 43, male beneficiary at Bhola  
(\* not the real name on ethical reason)

## Role of Opinion Leaders

Using the opinion leaders was another driving force in reaching the project goal. In a developing country like Bangladesh, the opinion leaders, such as schoolteachers, religious leaders (imam of mosque, father/priest of churches etc.) have a dominant role toward changing the behavior and introducing new ideas. The teachers played a great role in creating awareness among the students. The students were the catalyst in their families, especially motivating the parents, most importantly taking their mothers for eye care and treatment and visiting the service centers.

The imam of the mosque announced about the project events (such as outreach camp) during the Friday prayers among the community people.

### An interview with a Teacher

#### **I went first to check-up my eyes ... Seeing is Believing by others!**

Shafiqul Hoque\*, the teacher of a local school at Patuakhali. Age around 54, well respected by the students and their parents! He is an opinion leader in that community indeed! ResInt researcher spoke with him in-depth about the intervention of Fred Hollows. After the interview with him, we can say that he was of the front liners who motivated the people and the students to take the advantage of the cascade meeting and eye surgery intervention. He was incredibly positive about the program. The quotes from the interview:

*I came to know all about the services related to eye care provided by NGO. I could learn eye diseases and how to prevent those diseases. I realized, as a teacher, this is my responsibility to educate my students. They can share with their families. Therefore, when I first started talking about eye care to my students, they along with their parents came forward, appreciated me for motivating them, in taking such a good step. I am a member of the local steering committee. I encouraged the community people to attend all the events organized by the Fred Hollows and their selected NGOs. When I came to know that Fred Hollows is organizing such eye care services in our locality, I became excited, moreover, I became a member of the steering committee. When the NGO team started their operations, I was the first to volunteer, checking my eyes. The experience is amazing! Well behaved doctor and the nurse. They were very sympathetic and caring to the female and elderly citizens. This touched my heart! Most of them perhaps will never get the opportunities to go for any any eye check-ups or cataract surgery. Everybody there was referring my name. The students inspired their parents to check-up their eyes, most importantly it is free of cost! A great support to the less-income people.*

He further suggested to continue the program. There is a need for more communication campaign among the targeted beneficiaries, especially the females and elderly citizens.

- Shafiqul Hoque\*, age 54, Teacher, Local School Patuakhali  
(\* not the real name on ethical reason)

### An interview with an Imam of a mosque

#### **Created awareness at the Friday prayer – a religious congregation among the Muslims!**

The week before the the event (eye care and cataract surgery), the Imam of the local mosque announced at the Friday prayer (known as Jumma), immediately after the *Bangla Khutba* (explaining from Holy Qur'an) among a large number of the people. He explained the necessity of eye check-ups and surgery. He also said that he will also discuss about the need for any cataract surgery. He is also diabetic.

- Imam Abdul Majid\*, age 42, Imam of a mosque, Patuakhali  
(\* not the real name on ethical reason)

### An interview with a doctor at Medical College Hospital

#### **Long-term strategy introducing social and behavior change communication!**

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*patients without any discrimination. We have trained our staff, nurses, paramedics to be gender sensitive. There were exclusive facilities for the women, focusing gender friendly (such as breast-feeding corner, separate line for female etc.) and this information was shared to increase female patient flow.*

*We also motivate the parents that using glasses is not any “defect”, it is a natural process of life. It is believed (superstition) that if any girl use glass, she may have problem in getting married. We try to educate the parents that if their daughters use glasses, they will be able to study well and will have better result. And thereby will be an asset to their families.*

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## Vision Center

Vision centers are public facilities at the sub-district level. FHF initiated a pilot innovation of the RE business model that namely the Women CAN, is empowering women entrepreneur in the eye care sector. There are 25 Vision Centers, are functioning and FHF receives data every month, however it has been observed that there is a nearly 25% huge turnover of medical and technical personnel at these vision centers and constantly training/refreshers needs to be provided to new comers.

The Eye INGO Forum (FHF, Sight Savers, CBM, Orbis, HKI etc) advocated to the government the importance of having a functioning VC at the sub-district level. Sheikh Hasina, the Honorable Prime Minister of Bangladesh took this initiative personally and Vision Centers were inaugurated in 200 subdistricts (out of 464) all over the country. The Refractionists were being trained by Aravind Institute (India). This initiative has been taken at the later part of 2019.

## CHAPTER 8

### CONCLUSION

Blindness survey in Barishal division conducted by The Fred Hollows Foundation in 2013 reported that the rates of severe visual impairment (all eyes) were 6.6% / 6.4%, and moderate visual impairment were 13.2% / 10.8%. The root causes of visual impairment were untreated cataract (87-94%) and refractive error (4-10%). Also, it was estimated that there is a total of 55,524 people with best corrected bilateral VA < 6/60 due to cataract require surgery, and 68% of these are women. Further investigation suggested that the main barriers for accessing eye health services in this division were lack of felt need for a surgery, high cost of surgery, and lack of awareness about treatment options and these barriers affected women more than men.

Against this backdrop, The Fred Hollows Foundation started implementing the project titled 'Building Gender Equitable Eye Health Systems in Barishal Division' from January 2016. The project ended in December 2019. The overall goal of the project was to avoid blindness in people at risk of vision loss through strengthening the health system and creating a gender sensitive intervention and thereby reducing the gaps between the males and females in availing eye care services. The project is funded by *Seeing is Believing (SiB)* - Standard Chartered Bank's flagship community investment program which provides funding to address avoidable blindness and promote quality eye health.

Since the project's life cycle ended in December 2019, FHF conducted this end line survey to understand project's reach, success, sustainability, lessons learned etc. The survey was divided into two parts, (1) the KAP (end line) part was conducted to assess the change in level of knowledge, attitude and practice among sample population in Barishal division. The 2<sup>nd</sup> part consists of evaluating the intervention, and to determine the extent to which the project's intended outcomes were met, and to understand what worked well in building gender equitable eye health care services.

The KAP survey shows that the FHF intervention has had very high degree of success in creating awareness and demand of eye care health services.

Some key findings of the survey have been given below:

- All of the respondents are found to be aware of eye health related problem
- Awareness of cataract was found among 89% of the respondents
- Around 60% of those aware, mentioned that there is a "curtain/screen inside the eyes" as a symptom of cataract. Other mentionable symptoms as cited by the respondents are dimness of vision (24%), Suffer from white pupillary reflex (23%) and blur vision (17%). Most of them (90%) opined that operation can cure cataract.
- About 3/4<sup>th</sup> of the respondents (72.9%) spontaneously mentioned about refraction error as one of major problems. However, in response to a specific question, 87% of the respondents have deeper knowledge about RE which was 82% in the mid-term review.
- Around 60% are aware of eye camp and 89% of them visited eye camp
- Around 62% are aware of cascade training and 84% of the aware respondents attended cascade training session
- As per about 90% of the respondents, a male and a female of a family enjoyed same importance in case of taken to the hospital if both suffer from same eye health problem, they are given same priority to uptake treatment, are taken to the same service center and also, same amount of money is spent for treatment for both of them.

- Most of the respondents (79%) identified ignorance as a barrier to up take eye treatment. Two gender sensitive issues negligence from family and lack of voice in the family were mentioned by 47% and 52% of the respondents respectively.
- About 90% of the respondents described the services offered by the service centers are good.

The end line survey data show:

- Awareness of probability of suffering from blindness if treatment is not taken on time is found to be universal
- 100% of the respondents are aware that curative care is available
- Most of the female respondents (89%) are aware of Cataract
- 9 in 10 respondents are satisfied with services provided by the service providers

All of the above-mentioned statistics demonstrate that the project achieved remarkable success in terms of meeting up its targets.

## CONCLUSIONS

**Gender sensitive intervention:** One of the major success areas is that the project could create a gender sensitive environment at the service centers. Most importantly, the beneficiaries, both males and females could understand the importance of reducing the gender inequality gaps.

Continuity and scalability of the program across the country needs **financial support**. In addition to donor support, the program may consider private sectors support and funding as well. There are many large private companies in Bangladesh (from financial, telecom, manufacturing, industrial etc.) looking for great ideas to fund from their CSR (corporate social responsibility) funds.

Gender inequality is a social problem. Reducing the gender inequality and enhancing the participation of women in adopting eye care services, were outcomes that this intervention was able to demonstrate. SiB is now graduating from concept to a successful project. Steps should be taken to make it a **model** and thereby promote sharing among other NGOs and donors that have similar objectives. The project could even be scaled up in other areas across the country. This can be turned into a social movement and the SiB model could be the vehicle toward expanding the eye care services for all, irrespective of gender, religion and age; it could effectively transform social and family “burdens” (due to blindness) into easily preventable solutions and victories (emotional empowerment through awareness & renewed hope through access to affordable healthcare).

**Key Achievements:** The project evaluation was carried out based on the evaluation questions provided by FHF. Based on the responses of these questions, the key achievements of the project have been given below:

- Identifying barriers to up take eye health care services especially for women and marginalized population.
- Organizing eye camp in remote areas (hard to reach areas even in the areas different islands in Bhola).
- Organizing cascade training for community people.
- Providing eye care services to marginalized population such as transgender individuals, Dalit (lower caste Hindus), fisherman, cobblers etc. who were neglected and overlooked before.

- The project organized eye camp in remote areas through its private partners in order to provide eye care services to marginalized communities.
- The project also organized, through partners, school screening programs among school students.
- Provision of basic equipment to the partner hospitals to provide quality cataract surgery and RE.
- Suggested and helped partner hospitals to develop a gender friendly environment for the patients that includes separate waiting spaces for men and women, establishment of nursing corner and breast feeding corner in district hospitals and one medical college where lactating mothers could breastfeed their babies. This place was also used by aged female patients to rest before and after performing cataract surgery.
- Basic renovation was done in the designated health centers to provide eye care services in a gender equitable environment.
- Creating Vision Centers and thereby reducing the incidence of RE among the women.
- Introducing referral system through training between pharmacies and nearby hospitals will contribute to prompt women to up take eye care treatment from hospitals
- Strengthening MIS system of partner hospitals.
- Total screening 525,628 (225,217 male, 300,411 female), target – 375,000
- Total RE 91,730 (37,680 male, 54,050 female), target – 66,000
- Total Cataract Surgeries – 25,000 (10,949 male, 14,051 female), target – 25,000, with another 3,731 surgeries conducted in government hospitals (1,854 male, 1,877 female)
- The success of the surgeries under this project is quite commendable as 93% of the patients undergoing surgery received “normal” or “near normal” vision.

**Sustainability:** This project showed great promise in changing the lives of millions of people, especially the lower income and marginalized communities, more specifically in women. The question of the sustainability arose during discussions (FGDs and in-depth interviews) with the beneficiaries, stakeholders and program staff. All of them suggested the need for the continuity of the intervention. FHF and the donors may consider this issue.

The project took some initiatives that will expectedly sustain after the end of project life cycle. These initiatives include:

- Communication messages and innovative approaches that the project executed has changed attitudes and practices of community members especially women to access eye health services; these behavioral changes will sustain beyond the project lifetime.
- The initiative of organizing eye camp in the remote areas has increased awareness of necessity to pursue eye health care service among marginalized members of communities.
- Building capacity of government hospitals to provide cataract surgeries will help to sustain the project goals beyond its lifetime.
- Introducing referral system between pharmacies and nearby hospitals will further contribute to the adoption of eye care treatment from hospitals by female community members.
- Providing post-operative instructions for Cataract patients and their family members increase chances of a successful rehabilitation.
- Eye camp for school going children helped to create awareness of necessity of eye health care from an early age.
- Initiatives like selecting reputed partners, forming steering committee, facilitating training to service providers of all levels (especially short-term SICS training), etc. have further strengthened the efficiency and efficacy of eye health services. Moreover, about 900 primary level health workers have been trained on basic eye health and referral, significantly boosting the capacity of the public primary eye health sector and will expectedly ensure project’s sustainability after it

ends. It is expected that the Women CAN project would also play a vital role to sustain the project activities.

In conclusion, the project has achieved demonstrably good outcomes in awareness generation and guiding positive behavior. From the MIS data, a trend of increasing numbers of women patients, especially in the public facilities, has been observed. These increases can be attributed to gender related initiatives which had been undertaken during intervention under the project for all the district level health facilities. This model of intervention can be replicated in other districts of Bangladesh. To sustain and strengthen the project outcomes, further collaboration with related complementary service providers would help bring in holistic changes.

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