



# Advancing Accessible Eye Care in Bangladesh: Policy Recommendations for Community Vision Centers

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## Key Messages:

**Context to the study:** The most vital sense for humans is vision, which significantly impacts survival, well-being, economic growth, and sustainable development. Nearly 250 million individuals, including 36 million blind people, live with moderate to severe visual impairment worldwide. Due to a lack of reading glasses, more than a billion individuals suffer near vision impairment.<sup>1</sup> By establishing community vision centers, the government of Bangladesh chose to include basic eye care in the range of primary health care services. Eight base centers oversee the operation of 135 community vision centers under National Eye Care (NEC).

**Summary of findings:** Most community vision centers (CVC) have universal medicines and spectacles, except Rajshahi, Chottogram, Rangpur, and Barishal. CVC services could help patients save money from 310-1200 taka. The patient waiting time was 15 minutes to two hours in different CVCs. Most of the patients were very satisfied with the care of CVCs. There are several barriers to CVC: using the Aravind Eye Hospital server in India for better treatment, which was only available sometimes. The base center needs more skilled eye care physicians. The CVCs need to be better organized in terms of logistics and staff.

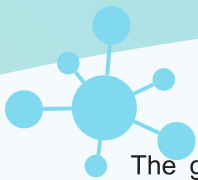
## Introduction

The most vital sense for humans is vision, which significantly impacts survival, well-being, economic growth, and sustainable development. Nearly 250 million individuals, including 36 million blind people, live with moderate to severe visual impairment worldwide. Due to a lack of reading glasses, more than a billion individuals suffer near vision impairment.<sup>1</sup>

The Global Action Plan (GAP) emphasizes strengthening Primary Eye Care (PEC) as an approach to achieving Universal Eye Health Coverage (UEHC). WHO defines UEHC as “ensuring that all people have access to needed promotive, preventive, curative and rehabilitative health services, of sufficient quality to be effective, while also ensuring that people do not suffer financial hardship when paying for these services.”<sup>2</sup> It also highlights the integration of PEC to address primary health care using the health system approach.<sup>2</sup>

A good PEC program should also ensure equity, community participation, inter-sectoral collaboration, and long-term sustainability for broader impact and healthy communities.<sup>3</sup>

Vision Centers are most effective if there is coordination, cooperation, and integration of the Vision Centre services with other service levels, including outreach and rural and regional hospitals. Vision Centers are a way of extending eye care into the community. Depending on local requirements and norms, they could be located in a district hospital, a community primary care clinic, or a stand-alone entity.<sup>4</sup>



The government of Bangladesh has adopted a model developed by "Arvind Eye Care System" for integrating primary eye care into the portfolio of direct health care services by setting up Community Vision Centers (CVCs) around a government tertiary eye hospital as base centers which would provide teleconsultation services, provide surgery, advanced investigations, and treatment to patients referred by the CVCs. The Bangladeshi government also decided that CVCs should be set up in Upazila health complexes and that general nurses should be chosen and trained to work at the CVCs.<sup>6</sup>

Currently, one hundred and thirty-five CVCs are running under Eight base centers. Sheikh Fazilatunnesa Mujib Eye Hospital and Training Institute, Gopalganj; Manikganj Medical College Hospital; Cumilla Medical College Hospital; Mymensing Medical College Hospital; Rajshahi Medical College Hospital; Rangpur Medical College Hospital; Barishal Medical College Hospital and Chattogram Medical College Hospitals are working as base centers for CVCs. This study aimed to assess the current status of community.

### **Summary of Research**

A mixed-method study design using both quantitative and qualitative research was adopted.

An expert committee meeting with representatives of national eye care, the ex-regional advisor of WHO SEARO, the Principal of Sheikh Sayera Khatun Medical College, and ophthalmologists was held to set the research plan.

The Donabedian model was adopted for the assessment of community vision centers. This model provides a framework for examining health services and evaluating healthcare quality.<sup>7</sup>

Data were collected from all 8 base centers through a semi-structured questionnaire and checklist. Out of 135 community vision centers (CVCs), 27 CVCs (the thumb rule of 20% of total community vision centers) from all 8 base centers were randomly selected for this study. Ten (10) patients were chosen randomly from each one—270 patients from CVCs made up the research population.

### **Research Findings**

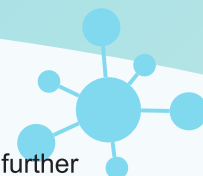
Medicines were available 100% in CVCs under Barishal, Gopalganj, Cumilla, Manikganj, Mymensing, and Rangpur base centers, 50% under Chattogram, and 67% under Rajshahi and Rangpur base centers.

The availability of spectacles in CVCs under the base centers in Gopalganj, Cumilla, Manikganj, and Mymensing was 100%. But in some CVCs, spectacles were only available for 3 months to one year. To know the provider-patient interaction, the behavior of the nurses toward the patients were observed. The responses were categorized as "(1) very good, (2) good, (3) satisfactory, (4) not satisfactory. It was observed that provider-patient interaction was very good, 91%, and good 9%.

The base center facilities provide consultations and prescriptions to CVC patients. Depending on the availability of doctors at the base centers and the condition of the servers, patients have to wait for the prescriptions in CVCs, which might range from 15 minutes to 2 hours.

Patients were asked how much money they would have spent elsewhere for treatment if these services weren't offered here to determine how much they would have saved by using CVC. Here, only out-of-pocket expenses are taken into account. We observed that using CVC for services results in savings ranging from 310 to 1200 taka.

The majority of patients—68%—were highly satisfied. Nobody selected "not satisfied" or "poor" as an option. 32% of patients expressed satisfaction; however, they wished they had received the prescribed spectacles. The significant barrier to providing continuous services is the problem with the server. Due to server issues, doctors from base centers must make patients of CVCs wait a very long period for prescriptions. Their regular activities are hindered. On the other hand, patients don't want to hold out for



an extended period to get a prescription. In some CVCs, patients referred to the base center for further treatment were unwilling to go there for several reasons.

The base center is far from the CVCs; many NGOs organize eye camps, Elderly patients cannot move alone, and family members are not interested in going to the base center. For referred patients, making transportation arrangements would be a good idea.

The majority of service providers screamed for refresher training. It would be less expensive if the individual base centers hosted these refresher training sessions. Workshops are essential for the experience-sharing of service providers, health managers, and NEC members.

Linkage of CVCs with community clinics can significantly impact referral networks and community involvement. Before establishing new CVCs, it could be crucial to resolve existing CVCs issues.

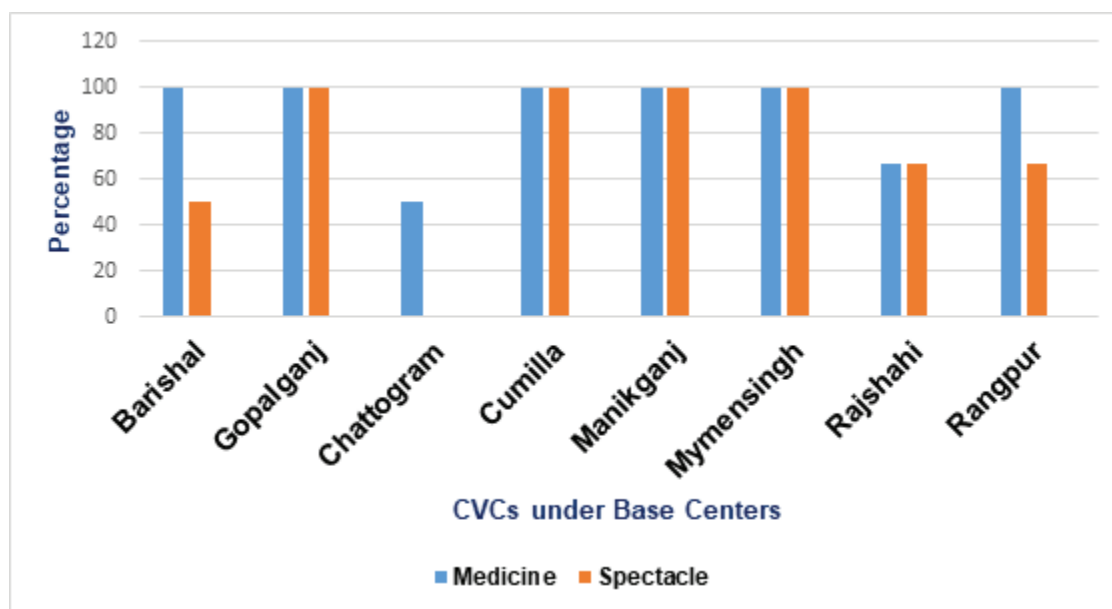


Figure 1: Availability of Medicine and Spectacles in CVCs

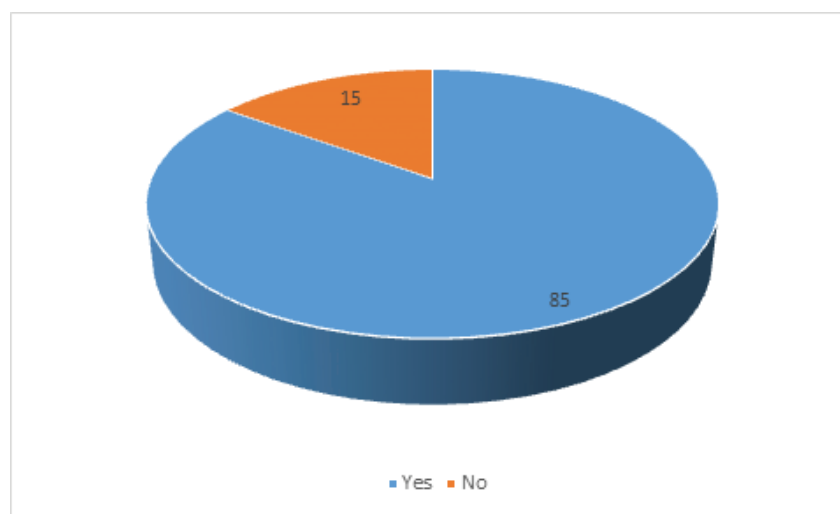


Fig 2: % of patients' satisfaction with receiving Eye services



### Policy Recommendations

- 1) Community Vision centers effectively provide community eye care, early diagnosis, primary treatment, and referral at the community level.
- 2) The policymakers should provide their judicious vision to function these community vision centers to reach eye care at the doorsteps of the rural people.
- 3) The digital vision of the Bangladesh government is an integral part of CVC services, lining the CVC with Aravind Eye Hospital in India, which has the potential to provide remote services through digital communication.

### References

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