

# Patients' Opinions of Free Eye Care Intervention in a Resource-limited Economy

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**Aim:** To ascertain the opinions of patients attending a government-organised free eye care programme in Ekiti State, Nigeria.

**Methods:** A cross sectional survey was conducted during a free eye care programme in June and July 2008.

**Results:** 227 patients comprising 89 men (39%) and 138 women (61%), with a mean age of 50.7 years (SD, 16.9 years; range, 13-86 years) participated in the study. The 2 most common reasons for patients to attend the free eye care programme were to obtain spectacles and for an eye test. Sex, occupation, and education were significantly associated with attendance ( $p < 0.05$ ), with women being significantly more likely than men to access the programme. Most patients (220; 97%) rated the free eye care programme as good or better. 129 patients (57%) could not afford to pay for eye care services. 132 patients (58%) identified the long waiting period as a drawback of the programme. Fifty two patients (23%) wanted an increase in the number of eye care personnel.

**Conclusions:** To achieve the goal of Vision 2020: The Right to Sight, free eye care is desirable in a resource-limited economy, as most of the population cannot afford to pay for eye care services. Proper organisation and deployment of adequate resources can eliminate problems associated with the free eye care programme.

**Keywords:** Eye, Health, Patients, Public opinion, Resource allocation

*Asian J Ophthalmol.* 2009;11:91-5.

## Introduction

In many resource-limited countries, free or highly subsidised eye care interventions are common. More than 70% of the global causes of avoidable visual impairment/blindness occur in resource-limited economies.<sup>1,2</sup> In addition, most people who need eye care in many of the resource-limited economies are in the lower socio-economic groups.<sup>3</sup> Moreover, resource-limited economies have rapid population growth rates without the corresponding increases in eye health care resources.

Eye health care interventions are known to be cost effective, giving high economic returns.<sup>4,5</sup> The motive for free or subsidised eye health care interventions may differ depending on the sponsors, but the goal is always the same, for example, *Vision 2020: The Right to Sight*.<sup>6,7</sup> Sight may be restored to the needlessly blind, and visual impairment may be improved to normal vision. Furthermore, the early detection of potentially sight-threatening ocular conditions can be accomplished.

In resource-limited economies, government-organised free eye care programmes aim to provide quality eye health care to the population, and bridge the gap of inadequately available eye care resources.<sup>8</sup> This reduces avoidable blindness/visual impairment in line with Vision 2020.<sup>6,7</sup>

Ekiti State in south-western Nigeria has a population of approximately 3 million people. Although the literacy level is high, the community is essentially agrarian, with some inhabitants employed in the civil service, teaching, trading, and technical professions. The only state-owned eye clinic is in the University Teaching Hospital, in Ado Ekiti, the state capital city, which has a resident ophthalmologist responsible for eye care services in the State. Since 1999, the Ekiti State community has received periodic government-sponsored free health care programmes, including free eye care. This study was conducted to ascertain the opinions of patients about the free eye care programme, with the aim of providing feedback to the organisers of the programme and ultimately improving the interventions.

## Methods

This study was performed in June and July 2008, during the ninth free eye care programme. The programme was subdivided and

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## Patients' Opinions of Free Eye Care Services

executed in phases of planning and publicity, screening of patients for eye conditions, surgery, and distribution of spectacles.

### Eye Care Programme

The initial publicity for the programme was via state-owned radio and television, and specified the period and venues for the programme. The screening phase of the programme and the distribution of free spectacles was conducted at 5 state hospitals, which were evenly distributed across Ekiti State, and included the hospitals at Ikole, Oye, Ijero, Ikere, and Ado Ekiti. The surgical phase was executed at the base hospital in Ado Ekiti.

An ophthalmic team participated in the programme, as well as staff at the host hospitals for the duration of the programme. A bus was made available by the State Ministry of Health for the duration of the screening.

### Study Design

The study was carried out during the screening phase of the programme at the 5 selected hospitals. Based on estimates from previous programmes in Ekiti State, approximately 2,000 people were expected to attend the screening programme. Using the systematic random sampling technique, every third patient was selected to complete a questionnaire after consent had been given.

The questionnaire was semi-structured and had been pretested on patients at the base hospital ahead of the study. The questionnaire

included questions on sociodemographic characteristics of age, sex, marital status, occupation, and level of education. Other questions included the purpose for attending the programme, reasons for preferring the free eye care programme to paid eye services, the rating for the programme, and challenges identified by the patients. Suggested areas for improvements in the service were noted.

A trained community health worker acted as a research assistant and assisted in the distribution and collection of the questionnaires. The questionnaires were read and/or interpreted to any respondents who could not read or understand the English language, in which the questionnaires were written.

### Statistical Analysis

The completed questionnaires were collated, coded, entered, and analysed by using the Statistical Package for the Social Sciences version 15.0 (SPSS, Inc, Chicago, USA). The tests for significance were carried out using chi-squared test, and a p value of < 0.05 was considered significant.

### Results

758 people attended the ninth Ekiti State government-organised free eye care programme. Of 252 questionnaires distributed among the participants in the programme, 227 were returned.

Most of the respondents (n = 138; 61%) were women and 89 (39%) were men (p = 0.04) [Table 1]. The mean age of the

Table 1. Patients' characteristics and reasons for attending the free eye care programme (n = 227).\*

Characteristic	Reason for attending the free eye care programme				Total
	Eye test	Spectacles	Eye medicine	Eye operation	
Sex					
Male	24	42	12	9	87
Female	62	52	12	8	134
Total	86 <sup>†</sup>	94 <sup>†</sup>	24	17	221
Occupation					
Trader	21	13	4	4	42
Student	11	4	5	2	22
Pensioner	6	4	2	1	13
Farmer	5	13	3	2 <sup>†</sup>	23
Dependant	5	1	4	2	12
Teacher	7	20	1	1	29
Civil servant	21	25	2	2	50
Clergy	2	3	1	0	6
Artisan	7	10	2	2	21
Total	85 <sup>‡</sup>	93 <sup>‡</sup>	24	16	218
Education					
None	16	6	4	7	33
Primary	17	20	3	3	43
Secondary	25	24	5	2	56
Tertiary	28	42	11	4	85
Total	86	92 <sup>§</sup>	23	16	217

\* Not all participants answered all the questions.

<sup>†</sup>  $\chi^2 = 8.293$ ; df = 3; p = 0.040.

<sup>‡</sup>  $\chi^2 = 36.978$ ; df = 24; p = 0.044.

<sup>§</sup>  $\chi^2 = 19.383$ ; df = 9; p = 0.022.

respondents was 50.7 years (SD, 16.9 years; range, 13-86 years). Of 222 patients who indicated marital status 185 (83%) were married, 33 (15%) were single, 3 (2%) were widows, and 1 (1%) was a widower.

Of the 217 patients who indicated their level of education, 184 (85%) had at least primary education and 33 (15%) had no formal education (Table 1). There was an association between level of education of the patient and purpose for attending the free eye care programme ( $p=0.022$ ).

The 2 most common reasons for patients to attend the programme were to obtain spectacles and to have an eye test (Table 1).

The 2 most common professions were public service and trading. Approximately half of the patients who attended the programme to obtain spectacles were in the public service or teaching professions. Approximately half of the members of each of the occupational groups of farmers, clergy, and artisans attended the programme to obtain spectacles. There was an association between occupational group and reason for attending the programme ( $p = 0.044$ ) [Table1].

The patients' ratings for the programme were excellent ( $n = 148$ ; 65%), very good ( $n = 54$ ; 24%), good ( $n = 18$ ; 8%), and fair ( $n = 7$ ; 3%).

The main reason for patients preferring free to paid for eye care services was their inability to afford eye care services ( $n = 129$ ; 57%) [Table 2].

Problems identified by patients included the long wait before a consultation with the ophthalmic personnel ( $n = 132$ ; 58%) and the long distance to travel to the venue ( $n = 32$ ; 14%) [Table 3]. Many patients wanted an improvement in the number of clinics and an increase in the number of staff ( $n = 52$ ; 23%) [Table 4].

## Discussion

Free eye health care programmes in resource-limited economies are desirable as many studies have identified patients' inability to afford eye care services as a barrier to uptake of services.<sup>9-12</sup> This study further confirmed this, as most patients ( $n = 129$ ; 57%) indicated their preference for free eye care services due to their inability to afford to pay for care.

The female preponderance in this study was significant ( $p=0.04$ ). Generally, the level of awareness, access, and acceptance of eye care services are low among women compared with men.<sup>13</sup> However, it has been reported that women are significantly more likely than men to access services through programmes that provide support services.<sup>13</sup>

The high level of literacy among the participants was commendable. There was an association between level of education and attendance at the free eye care programme ( $p = 0.022$ ).

**Table 2. Reasons why patients preferred free to paid for eye care services (n = 227).\***

Reason	Number of patients (%)
Closeness of the venue to home	16 (7)
Comparable quality of care	24 (11)
Free enjoyment	54 (24)
Inability to afford payment	129 (57)

\* Some respondents selected more than 1 reason.

**Table 3. Problems identified during the free eye care programme (n = 227).\***

Problem	Number of patients (%)
Inadequate services	7 (3)
Insufficient eye care providers	15 (7)
Inadequate publicity	17 (8)
Distance to the venue	32 (14)
Long wait before consultation	132 (58)

\* Some respondents selected more than 1 problem.

**Table 4. Suggestions for improvement of the free eye care programme (n = 227).\***

Improvement	Number of patients (%)
Availability of eye medicine	30 (13)
Funding	48 (21)
Organisation	49 (22)
Availability of eye equipment/instruments	50 (22)
Number of eye care personnel	52 (23)

\* Some respondents selected more than 1 suggestion.

The high demand for spectacles among the participants might be related to their demographic characteristics. Most of the patients were in the age range that would require presbyopic correction or were professionals such as teachers, civil servants, and clergy, who might require frequent use of near vision. Artisans such as tailors may require presbyopic glasses for sewing, including threading needles. In farming, processes of weeding, winnowing grains, and sorting farm produce require near vision.<sup>14,15</sup>

Although many of the patients desired free corrective spectacles, the eye care providers had to guard against possible abuse of this provision. Anecdotal reports from previous free eye care programmes suggest that some individuals were given free spectacles, but did not use them, and some got several pairs, thus depriving those who genuinely needed them. This was further confirmed by the fact that 54 of the participants (24%) felt that the service should be enjoyed as it was free. This result implied that some of the participants might not have needed the service.

The reasons for participants to attend the clinic included routine eye test, visual restoration, and ocular discomfort. Although screening for eye conditions is not practicable for an entire population because of limited resources, eye tests have been recommended for target populations.<sup>16-19</sup> Eye tests have the potential for early detection of vision-threatening ocular conditions such as glaucoma.<sup>19</sup>

Eye surgery was not a common reason for attending the programme. This might be a result of previous eye care programmes that dealt with a backlog of ocular surgeries such as cataract extraction and pterygium excision. Also, some patients fear surgery<sup>12,20</sup> and may not voluntarily opt for surgery unless counselled. Furthermore, some patients' stated reasons for attending the programme might not correlate with the diagnosis.

This study highlights distance as an important factor in the uptake of eye care services.<sup>12,13</sup> Sixteen participants (7%) took part in the programme as the venues were close to where they lived, while 32 (14%) identified having to travel a long distance to the venue as a problem. Although the venues for the screening for ocular conditions/distribution of spectacles were evenly distributed during the programme, some participants had to travel from neighbouring towns and villages. Also, all patients needing free ocular surgery had to travel to the base hospital in Ado Ekiti.

It was commendable that 24 of the participants (11%) preferred the free eye care services to paid eye care as they believed the quality was comparable. However, problems of insufficient eye care providers and inadequate publicity were identified.

Adequate publicity to reach the target audience is essential for a community-based programme.<sup>12</sup> The message should be clear, and the purpose, the identity of the sponsor, the venue, and the date should not be ambiguous. Moreover, the timing of the publicity should be well in advance of the programme commencement. Media such as radio and television, as used for this programme, are efficient means of reaching the community. In particular, radio is ideal for resource-limited communities in view of its flexible and affordable use of power. Town criers, market hand bills, banners, and community leaders are other potent sources for disseminating information.

The long wait for patients before being attended to was expressed by most participants (n = 132; 58%). The fact that similar problems have been reported elsewhere<sup>21</sup> underscores that this should be expected ahead of the programme. In a screening programme, eye care personnel should resist the temptation to provide detailed ocular examinations, as too long spent with one patient means a long delay for those still waiting for a consultation. During the screening programme, ocular conditions that may require more time for examination should be referred to an eye clinic, as a screening programme is expected to be fast. In resource-limited communities, a well publicised and acceptable free programme is characterised by a good response, so an appropriate estimate of the target population and deployment of adequate resources can reduce the patients' waiting time. However, many participants tend to arrive early out of concern at not having a consultation. Consequently, this might result in subjective feeling of having waited for too long before receiving attention.

In conclusion, the 2 most common reasons for attending the free eye care programme were to obtain spectacles and for an eye test. More refractive specialists should participate in free eye care programmes to reduce the workload. Professional groups such as civil servants and teachers could be targeted for periodic presbyopic screening and correction. The observed reduction in the number of participants requiring eye surgery might be the result of the positive impact of previous eye health care programmes.

To achieve the goal of *Vision 2020: The Right to Sight*, free eye care intervention is desirable in resource-limited economies, as most people cannot afford to pay for eye care services. The organisers of the programme can eliminate associated problems through proper organisation and mobilisation of adequate resources towards the programme.

### Acknowledgements

We commend the efforts of the Ekiti State government at reducing visual impairment/blindness through free eye care programmes. We appreciate the assistance of the community health worker during this study. Finally, our special thanks go to the participants of this study.

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