

## CATARACT SURGICAL COVERAGE IN KOLENCHERY, KERALA, INDIA

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Out of the 38 million blind, 8.9 million live in India and of these 5.12 million are due to cataract. This major cause of blindness can be overcome by cataract surgery. In the year April 1996 to March 1997, India carried out 2.7 million cataract surgeries, but this is still inadequate to clear the backlog.

In April 1995 we started a Community Eye Care Project (CECP). The project aims to give comprehensive eye care to a population of 500,000. The first two-year phase covered a population of 150,000. Trained field workers gather information on the eye problems in the community and refer them for treatment.

The project's aims are to identify the blind in the community, give curative treatment, if possible, and rehabilitate those who are incurably blind. All the people in the area are examined for eye diseases. This information is used to determine the prevalence of blindness, prevalence of cataract and the cataract surgical coverage in the area. The project also screens children under five years of age for signs of nutritional blindness.

### Materials and Methods

A population of around 90,000 in an area of 190 sq. km. has been examined. The field staff were given training in basic eye care, which includes – vision recording, identifying common eye diseases, identifying

cataracts, aphakia and pseudophakia. Field workers and community level volunteers were selected from the project area itself. They were also trained in imparting community based rehabilitation (CBR) to the incurably blind.

Field workers carry out house-to-house surveys of all the people in the area, identify the visually impaired and refer them to the hospital or to a local screening camp. The camp is organised in the area and an ophthalmologist goes there to see patients referred by the field workers. The field workers are given 'E' charts and cataract cards to record visual acuity and identify cataracts. A field supervisor oversees the work of the field workers. The visual status is assessed as per the WHO categories of visual impairment. Patients who have operable cataracts are referred to the base hospital for surgery. It is the responsibility of the field workers to motivate and bring these patients for surgery. The field staff conduct follow-up visits to those who are not willing to go for surgery and motivate them with the help of those who have had surgery.

### Results

A total of 93,350 people have so far been screened, with a 96.2% examination rate. Absenteeism accounted for the non-examination of 3,590 people. There were 354 blind people of which 313 (88%) were due to cataract. The prevalence of blindness was 0.39% and cataract blindness 0.35% (<3/60). The prevalence of operable cataract (defined as a person with less than 6/60 in the better eye due to cataract) was 0.49%. The prevalence of aphakic patients (without intraocular lens implants - IOLs) was 0.48% and the prevalence of pseudophakic patients (with IOLs) was 0.21%. There were 441 patients with a best visual acuity of less than 6/60 due to cataract and 620 patients who had received cataract surgery, giving a cataract surgical coverage of 59%. Of the 620 patients who had received cataract surgery, 30% had an IOL. We performed 346 cataract surgeries from the target population of 150,000 last year, giving a cataract surgical rate of 2,300/million population/year.

Our observations in the eye screening camps conducted by our mobile unit show



**Developing cataract**

*Photo: Murray McGavin*

that at least 20% of those who attend have operable cataracts but less than 10% of them report for surgery at the base hospital. Lack of escort, fear of surgery, socio-economic reasons, adverse media reports of isolated failures in eye surgeries especially in eye camps, are some of the reasons reported for non-compliance. We surveyed 121 patients who were advised to have cataract surgery by our field workers. Only 35% of them underwent cataract surgery over a six-month follow-up period. The reasons for non-compliance were lack of escort (30%), economic reasons (20%), and 20% felt that surgery was not needed.

The trained field workers and community level volunteers are selected from the same community as the patients, which helps in better motivation of cataract patients. These field workers also detect common eye diseases and give community based rehabilitation, thus providing total eye care to the community.

There are many possible solutions to clearing the backlog of curable blind in India. Our community oriented approach could be one of them.

Kerala, despite being a state with total literacy and good health infrastructure, still has a problem of treatable blindness. We believe a community based programme is a good strategy for delivering eye care to the people.

### Acknowledgement

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Table: Operative Cataract, Aphakia and Pseudophakia by Age in a Community Survey of 89,760 People

Age	Total No.	No. with Cataract <6/60-3/60	No. with Cataract <3/60	No. with Aphakia	No. with Pseudophakia
0 - 40	62,598	8	7	2	1
41 - 50	10,790	8	5	2	17
51 - 60	6,747	21	85	92	42
61 +	9,625	91	216	325	129
<b>Total</b>	<b>89,760</b>	<b>128 (0.14%)</b>	<b>313 (0.35%)</b>	<b>431 (0.48%)</b>	<b>189 (0.21%)</b>