

Refractive Errors

A solution in sight

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This presentation will focus on

- Overview
- Some lessons learnt
- Service delivery models
- Costs associated
- Financing the services

Current Status in India

- Low use of spectacles in the presence of significant refractive error
 - Amongst Children who need spectacles : 7 - 8% have them
 - In the 50 yrs and above age group: 10% to 15% have them

Reasons for low usage

- Grouped into those attributable to
 - The provider
 - The consumer / community

Possible Reasons for Low Levels of Spectacle usage

- Those attributable to the Providers:
 - Failure to create awareness
 - Failure to reach out
 - Failure to create an easily accessible delivery system
 - Affordability

Possible Reasons for Low Levels of uptake

- Those attributable to the community & customer:
 - Lack of desire to use spectacles
 - Social/Cultural Barriers

Some lessons learnt

- Usage levels are very low
- There is a willingness to pay for the spectacles
- Particular about the looks – “Vanity” element is important even amongst rural, poor
- Has an impact on productivity

Models to reach the community

- School eye health camps – **Children**
- Office & Industry Refraction camps – **Productive age group**
- Comprehensive eye camps – **Older age group**

Spectacles & Productivity

- a study (design)

- ❑ A study was done in a Textile Industry with support from “Adaptive Eye Care Ltd, UK”
- ❑ 238 workers representing spinners & winders were studied
- ❑ Baseline productivity was recorded
- ❑ Glasses were provided to all those who needed them and were followed up
- ❑ Quantitative data was used to assess productivity
- ❑ Qualitative assessments using focus group and semi-structured interviews were done on the employers and the workers

Spectacles & Productivity

- a study (Results)

- 71% of the workers were 40 years or older
- 79% (187 of the 238 workers) required spectacles and of these
 - 4% (7) were wearing appropriate spectacles
 - 4% (8) were having incorrect spectacles
 - 92% (172) have never worn spectacles

Spectacles & Productivity

- a study (Results)

- ❑ The study showed higher overall productivity - estimated at 10%
- ❑ Workers reported improved efficiency and better quality of life
- ❑ The employers wanted the service to be provided to all employees

Some examples of Community based interventions



Principles

Use all opportunities

Make it affordable

Refraction services in regular Community Eye Camps

- ❑ Refraction & dispensing of glasses is now an integral part of the camp
- ❑ Camp publicity mentions refraction service and that the glasses will be made available at reasonable price
- ❑ Optical Sales Counter and dispensing facilities for immediate delivery

Improvised Refraction space



Refraction Services in Eye Camps

In the year 2006

No. of Regular Eye Camps	1,442	
Total Patients screened	411,486	
Glasses advised	64,270	15.6%
Ordered & Acceptance rate	51,586	80%
On the spot delivery	39,410	76%

Refraction Eye Camps for Industries & Offices

- ❑ Contacting the Management and selling them the idea
- ❑ Finalizing the financial details – payment for the glasses
- ❑ Fixing a date and examining the staff/workers
- ❑ On the spot dispensing – Readymade, Edged & Fitted
- ❑ Follow-up on usage and satisfaction – workers & Management

Refraction camp details for the year 2006

Particulars	NO
Eye camps conducted in Mills	124
Employees screened: < 40 yrs	16,204 (59%)
> 40 yrs	<u>11,182 (41%)</u>
Total	27,386
No. of Prescriptions: < 40 yrs	2,199 (14%)
> 40 yrs	<u>5,435 (49%)</u>
Total	7,634 (28%)
Total No. of Glasses ordered	6,691 (88%)
Delivery of Spectacles:	
Edged, Fitted and dispensed on the spot	4,669 (70%)
Readymade	227 (3.4%)
Sent by post (Direct)	1,795 (26.8%)

School Screening – Glasses for Children

- ❑ Only 1 in 15 have refractive errors or other eye problems
- ❑ Trained teachers screen all children
- ❑ 2nd Level screening by the Oph. Assistant
- ❑ Fixing a date for final examination so that parents can be present



Aravind Eye Hospitals

School Eye Health Scheme - 2006

Schools covered	91	
Teachers trained	297	
Students screened by teachers	104,828	
Students with eye defects – by teachers	15,470	15%
Students with eye defects – by Oph. Assts	9,054	59%
Students with defects – by Oph.	6,443	71%
% of students with confirmed eye defects		7%

Costs associated – Provider

- ❑ Cost towards creating awareness and acceptance to wear spectacles
- ❑ Cost of screening and providing refraction services

Costs Associated – Patient

- Cost of spectacles (US\$ 3+)
- Cost of getting glasses (travel, fee & time - US\$ 3 to 10) Involves 2 to 4 trips:
 - Examination
 - Ordering the glasses
 - Getting the glasses
 - Ensuring that the glasses are right
- The above costs can be reduced to 0 with the strategy of free examination and on the spot delivery

Pattern in the Dispensing of Glasses

- ❑ On the spot delivery - 85%
 - Readymade - 9%
 - Edged & Fitted on the spot - 76%
- ❑ Orders taken and delivered later - 15%



Financing the Refraction

Correction services

- In our experience, the patients are the sustainable source
- Average value of spectacles ordered:
 - In Regular Community camps: US\$ 3.50
 - In Industry Refraction camps: US\$ 6.00
 - In Free Hospital: US\$ 4.00
 - In Paying Hospital: US\$ 10.75

Financing the Refraction Correction services

- Patient revenue can cover the costs of providing the Refraction Service and the cost of Spectacles
- For the poor surplus from the above or external subsidies may be used

Summary

Refraction services can be promoted by:

- ❑ Using all current patient contacts at the hospital, community and school to promote refraction services
- ❑ Providing refraction correction to Industries & Offices
- ❑ Adapting low cost methods to provide “on the spot” delivery of spectacles



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