Eye Care in India – A Situational Analysis

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The Regional Workshop on Prevention of avoidable Blindness and Visual Impairment in SEAR
September 22-24, 2011, Madurai, India
Prevalence of Blindness (India)

• Estimated blind persons in India (visual acuity <6/60) - 12.14 million

• Estimated National Prevalence of Childhood Blindness / Low Vision is 0.80 per thousand

• There were 6.7 million of blind people (WHO definition) in 2002 in comparison to 8.9 million in the year 1990

• As per WHO India observed a decrease in 25% of blindness (global data on visual impairment -2002 / WHO Bulletin)
Causes of Blindness in India

- Cataract: 62.6%
- Refractive Error: 19.7%
- Glaucoma: 5.8%
- Posterior Segment Disorders: 4.7%
- Corneal Blindness: 1.2%
- Surgical complications: 0.9%
- Others: 5%
Prevalence of Blindness

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.
Objective-1 & 2

- STRENGTHEN THE ADVOCACY TO INCREASE MEMBER STATES POLITICAL, FINANCIAL AND TECHNICAL COMMITMENT IN ORDER TO ELIMINATE AVOIDABLE BLINDNESS AND VISUAL IMPAIRMENT

- DEVELOP AND STRENGTHEN NATIONAL POLICIES, PLANS AND PROGRAMMES FOR EYE HEALTH AND PREVENTION OF BLINDNESS AND VISUAL IMPAIRMENT
National Programme for Control of Blindness [NPCB]: Origin

- India was trachoma endemic country in the late 1950’s and 1960’s.

- Hence National Trachoma Control Programme was launched in 1963 which was subsumed in the National Programme for Control of Blindness in 1976.
National Programme for Control of Blindness (NPCB)

• National Programme for Control of Blindness was launched in 1976 as a 100% Centrally Sponsored Programme to reduce prevalence of blindness from 1.4% to 0.3%

• As per rapid survey on avoidable blindness conducted during 2006-07, the prevalence of blindness has come down to 1% as compared to 1.1% during 2001-02.
Objectives

• To reduce the backlog of blindness by identifying and providing appropriate eye care services.

• To develop comprehensive eye care facilities in every district.

• To expand coverage of eye care services to the underserved areas.

• To provide high quality eye care services to the affected population.

• To develop capacity of institutional and health personnel.

• To enhance community awareness on eye care.
Organizational Structure of NPCB

Central

State

District

NPCB

State Health Societies

District Health Societies
NPCB ORGANIZATION

State Health Societies – 28
Managed by NRHM & SPO’s

District Blindness Control Society (DBCS)-631
Managed by District Programme Managers (DPMs)
District Hospitals & NGOs

UT’s Health Societies - 7
Regional Institute of Ophthalmology-20 & Medical College Hospitals (146)
Delivery of Eye Care Services
Patients screening, Diagnosis and Surgery

- **PHC/Vision Centre**
  - **Mobile Van**
    - **Screening Camps**
      - **Tele-Ophth. Units**
        - **Private Eye Doctor**
  - **District Hospital**
    - **RIO/Medical College**

**NGO**

**Govt.**

**Base Hospital e.g Trippura**
Role of NPCB

• Policy Maker
• Budget Provider
• Guide and Supporter of Stakeholders including NGOs
• Monitor & Evaluator
NPCB Budget

- 9th Five Year Plan  2500 million INR
- 10th Five Year Plan  4500 million
- 11th Five Year Plan  12500 million

1.2 % of GDP on Health
0.9 % of Health expdr on NPCB
Infrastructural support to states by NPCB during 11th five year plan

<table>
<thead>
<tr>
<th>Institute</th>
<th>2007-08</th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
<th>2011-12</th>
<th>Total</th>
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<tbody>
<tr>
<td>Medical College</td>
<td>40</td>
<td>28</td>
<td>44</td>
<td>2</td>
<td>5</td>
<td>119</td>
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<tr>
<td>Eye Bank</td>
<td>9</td>
<td>13</td>
<td>11</td>
<td>15</td>
<td>14</td>
<td>62</td>
</tr>
<tr>
<td>Eye Donation Centre</td>
<td>27</td>
<td>68</td>
<td>20</td>
<td>31</td>
<td>15</td>
<td>161</td>
</tr>
<tr>
<td>Eye wards/OT</td>
<td>0</td>
<td>10</td>
<td>10</td>
<td>06</td>
<td>08</td>
<td>34</td>
</tr>
<tr>
<td>Vision centres</td>
<td>378</td>
<td>377</td>
<td>425</td>
<td>387</td>
<td>340</td>
<td>1907</td>
</tr>
<tr>
<td>Tele-Ophthalmology Unit</td>
<td>0</td>
<td>10</td>
<td>07</td>
<td>3</td>
<td>3</td>
<td>23</td>
</tr>
<tr>
<td>NGO supported</td>
<td>10</td>
<td>13</td>
<td>7</td>
<td>8</td>
<td>8</td>
<td>46</td>
</tr>
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</table>
Support to RIOs

• Non-recurring assistance upto Rs. 60 lakh for new RIOs and Rs. 40 lakh for existing RIOs for providing ophthalmic equipments for development of pediatric eye units / low vision units/ retina units, audio visual aids and training infrastructure, IOL surgery & all other sub specialties etc.
Support to Medical Colleges

• Strengthening of Medical colleges with funding of Rs. 40 Lakh for providing ophthalmic equipments as commodity assistance for development of paediatric eye units/low vision units/ retina units, audio visual aids, IOL surgery & all other subspecialties etc.

• 119 Medical Colleges from 22 states have been provided support.
Support to District Hospitals

• Non-recurring assistance upto Rs. 20 lakhs for ophthalmic equipments for IOL surgery/SICS/Phaco-emulsification/ glaucoma management etc. and audio visual aids, IOL, sutures etc.
Support to Sub-District Hospitals

- Grant-in-aid for strengthening of Sub-District Hospitals (75)

- Non-recurring assistance upto Rs. 5 lakhs for ophthalmic equipments for IOL Surgery/SICS, IOL, Sutures etc.
Support to Eye wards/ OTs

• Non-recurring assistance upto Rs.75 lakh through State Health Society (NPCB) for Construction of Eye Wards and Eye OTs in NE States, Bihar, Jharkhand, Jammu & Kashmir, Himachal Pradesh, Uttrakhand and few other states where dedicated Operation Theatres are not available as per demand to develop eye care infrastructure.

• Support has been provided for construction of 34 separate eye wards/OTs
Tele-Ophthalmology Unit

- Non-recurring assistance upto Rs. 60 lakh towards development of Mobile Ophthalmic units with Tele-Ophthalmic Network and few fixed Tele-Models.

- The assistance for Mobile Van with essential ophthalmic equipments is upto Rs.20 lakh. The assistance for Tele-Ophthalmic Network/Tele-Model is upto Rs.40 lakh.

- Grant in aid has been provided to 15 states for implementation of 23 Units.
Recurring Assistance for State Health Societies (NPCB)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Post</th>
<th>Remuneration P.M.</th>
<th>Cost P.A.</th>
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<tr>
<td>A</td>
<td><strong>Staff Support</strong></td>
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<tr>
<td>1</td>
<td>Budget &amp; Finance Officer</td>
<td>15000</td>
<td>180000</td>
</tr>
<tr>
<td>2</td>
<td>Administrative Assistant/Statistical Assistant</td>
<td>7000</td>
<td>84000</td>
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<tr>
<td>3</td>
<td>Data Entry Operator/Steno/LDC</td>
<td>7000</td>
<td>84000</td>
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<tr>
<td>4</td>
<td>Peon</td>
<td>5000</td>
<td>60000</td>
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<td><strong>Total</strong></td>
<td></td>
<td><strong>408000</strong></td>
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<td>B</td>
<td>TA/DA to Staff/ POL and vehicle maintenance/ Stationery &amp; Consumables/Quarterly Review Meetings, contingency, hiring of vehicle etc.</td>
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<td>992000</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td><strong>1400000</strong></td>
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Minor states & UTs

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<td>14000</td>
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<td>Administrative Assistant/Statistical Assistant</td>
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<td>84000</td>
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<td>Data Entry Operator/Steno/LDC</td>
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<td>84000</td>
</tr>
<tr>
<td>4.</td>
<td>Peon</td>
<td>5000</td>
<td>60000</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>396000</td>
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<tr>
<td>B</td>
<td>TA/DA to Staff/POL and vehicle maintenance/Stationery &amp; Consumables/Quarterly Review Meetings, contingency, hiring of vehicle etc.</td>
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<td>304000</td>
</tr>
<tr>
<td>Total</td>
<td></td>
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<td>700000</td>
</tr>
</tbody>
</table>
New initiatives

- **Appointment of Ophthalmic Surgeons** @ Rs 25,000/- and **Ophthalmic Assistants** Rs 8,000/in new district Hospitals and in PHCs/ Vision Centers where there are none.

- **Appointment of Eye Donation Counselors** @Rs 10,000/- on contract basis in Eye Banks under Government /NGO Sector.
Recurring Grant-in-Aid for NGOs for management of other Eye diseases other than Cataract like:

- Diabetic Retinopathy,
- Glaucoma Management
- Laser Techniques
- Corneal Transplantation
- Vitreoretinal Surgery
- Treatment of Childhood blindness etc.

(Rs. 750 for Cataract Surgery with Intra Ocular Lens Implantation and Rs.1000 for other intervention)
Maintenance Of Ophthalmic Equipments supplied to RIOs, Medical Colleges, district hospitals, PHCs/Vision centre's etc.

Development of Mobile Ophthalmic Units With Tele Ophthalmology Network in NE/Hilly states/Difficult terrains/underserved states and few fixed models in other states for diagnosis and medical management of eye diseases-Diabetic Retinopathy.
TELE-OPHTHALMOLOGY

Snap Shots
IEC Activities at Central Level

- Enhanced telecast/broadcast frequency on Doordarshan, Private Satellite Channel and All India Radio (AIR).
- Flash the message on Eye Donation through well-known websites.
- To Develop print materials such as folder, Poster etc.
- Spreading message through Unipoles – Govt. Hospitals, NGO hospitals, AIIMS
IEC Activities at Central Level ...Contd.

- Broadcasting Sponsored Radio Programme “Aankhien Hain Anmol” on All India Radio & Private Satellite FM Channels
- Advertising through well-known websites
- Displaying messages on BRT Bus Q Shelter in Delhi/ NCR
- Showing video messages in the Digital Cinema Halls in all Metros & Big cities
- Displaying the panels pertaining to eye donation in various Govt. Higher Secondary Schools, Kendriya Vidyalayas, Public & Private Schools. It is NOW proposed to extend this activity for CGHS dispensaries, Govt. & Private Hospitals, Colleges & other Educational Institutions school in Delhi / NCR & also in TEN Focus States of NRHM.
- Displaying the messages on Metro Stations in Delhi & New Delhi Railway Stations
IEC Activities at Central Level ... Contd.

- Displaying messages through Unipoles on all Metro Stations in Delhi & NCR.

- Displaying messages through Shatabdi & Jan Shatabdi Express Trains & Memo/EMU Trains all over India.

- Displaying messages through Postal & Railway Stationeries.

- Another NEW initiative this year is spreading message through SMS on Eye Donation to more than FIVE CRORES people in all the big cities and Metros across India!
IEC Activities at State Level

- Awareness Campaign on Eye Donation through NGOs, Senior Citizens Groups, Youth Association and Resident Welfare Associations etc.
- Involve Teachers and School Children in spreading the message on Eye Donation by holding on the spots poster painting competitions, slogans writing in Hindi, English and regional languages.
- Involve Corporate Sectors to participate and sponsor activities like sponsoring Grief Counselors/Medical Social Workers in major Hospitals to motivate the family members of the deceased to Donate his/her Eyes.
- Involve Cable Operators to Flash messages and put Eye Donation information through Cable-networks.
IEC Activities at State Level  ...Contd.

- Involve Religious Institutions and Leaders.
- Prepare Cinema Slides pertaining to the message of Eye Donation and show in the Cinema Halls with the help of Local Health Authorities.
- Display of Eye Donation board/banners on Mortuaries, Cremation Grounds, Hospitals and the Public Gathering Places like Railway Stations, Bus Stops etc.
- Get support from influential persons including Politicians, Sports-persons and Celebrities etc.
- Prepare “Tin plates & Stickers” carrying the message of Eye Donation and display at Prominent Places
Objective-3

INCREASE AND EXPAND RESEARCH FOR THE PREVENTION OF BLINDNESS AND VISUAL IMPAIRMENT
National Surveys on Trachoma with the support from NPCB (GOI)

• National Trachoma Survey of 1959-63
• The National Survey on Blindness in India-1986-89.
• A Rapid Assessment of Trachoma was conducted in 2006 in previously known hyper-endemic states in India.
• A population based survey was done in Bulandshahar (UP)-2007
• A Rapid Assessment of Trachoma in A& N island-2010
National survey on Blindness

• ICMR conducted a Nation wide Survey in 1971-74: led to launch of NPCB.

• National survey on Magnitude and Causes of Blindness-1986-89.


• Rapid Assessment of avoidable Blindness in the year 2006-07.
Objective -4

IMPROVE COORDINATION BETWEEN PARTNERSHIPS AND STAKEHOLDERS AT NATIONAL AND INTERNATIONAL LEVELS FOR THE PREVENTION OF BLINDNESS AND VISUAL IMPAIRMENT
Public Private Partnership

• NPCB is the one of the best implemented programme in the country.

• It has the best model of PPP.

• Grant in Aid (recurring & non recurring Grant) are being provided for cataract surgeries & for treatment of other eye diseases and for infrastructural strengthening.
NGO support

• Non-recurring Grant-in-aid of Rs. 30 Lakhs to NGOs through District Health Societies (NPCB) for strengthening/expansion of Eye Care Units in rural and tribal areas.

• 46 NGOs across country have been supported during 11th five year plan
Strengthening of Eye Banks

• Non-recurring assistance upto Rs. 15 lakh for equipments and furnishing towards strengthening/developing Eye Bank

• Recurring assistance of Rs.1500 per pair of eyes towards honorarium of Eye Bank staff, consumables including preservation material & media, transportation/ POL and contingencies.

• 62 eye banks from 13 states have been supported.
Strengthening of Eye donation centres

• Non-recurring assistance upto Rs.1 lakh for strengthening/developing Eye Donation Centre.

• Recurring assistance of Rs. 1000 per pair of eyes collected towards honorarium of eye bank staff, consumables including preservation material & media, transportation/ travel cost/POL and contingencies.

• 161 EDC from 23 states have been supported.
Vision Centres

• Non recurring assistance upto Rs.50,000 for basic equipments, furniture and fixtures etc. GIA to DBCS would be used for Vision Centres at PHCs in Govt. and Voluntary Sector.

• Recurring assistance of Rs.8,000 per month for appointment of an Ophthalmic Assistant on contract.

• 1907 vision centres have been supported across 32 states.
Objective-5

MONITOR PROGRESS IN ELIMINATION OF AVOIDABLE BLINDNESS AT NATIONAL, REGIONAL AND GLOBAL LEVELS
Monitoring and Evaluation

- State Health Societies in all states/UTs
- District Health Societies in all districts
- Regular monitoring and review meetings
- Local studies through SSUs (26)
- Indicators are CSR, Performance of School eye screening, corneal collection and keratoplasty done.
- 5% data is cross verified by DPM
- Regular evaluations by independent agencies.
Contd..

• Analysis of structured monthly and quarterly reports
• Officials visits by the concerned officers, periodical review meeting at central and state level
• Health Management Information System (HMIS),
• Performance Audit by CAG
• Mid-term Appraisal by the Planning Commission etc.
Improvement in quality and quantity of eye care services

• Emphasis on IOL implantation.

• Eye surgeries at institutional, medical colleges, district hospital and sub district level.

• Use of modern techniques and quality equipments for eye surgery.
Primary Eye Care

- India has well developed and well equipped health infrastructure.
- There are 3264 vision centres functioning in the country.
- PHC-21710
- CHC-4693
Strengthening human resource and capacity building

• Appointment of Eye surgeon, Eye Donation Counselors and PMOAs.

• Ophthalmic Eye surgeons are posted in all district hospitals except 40 hospitals.

• There are 50 Ophthalmic surgeons, 283 PMOAs and 78 Eye donation Counselors on contract basis.

• Training of eye surgeon, Medical officer and PMOAs.

• Rs. 70,000 per trainee is being paid to the training institute.
## Training

<table>
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<tr>
<th>Year</th>
<th>Targets</th>
<th>No. of surgeons trained</th>
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<tbody>
<tr>
<td>2007-08</td>
<td>400</td>
<td>300</td>
</tr>
<tr>
<td>2008-09</td>
<td>400</td>
<td>450</td>
</tr>
<tr>
<td>2009-10</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>2010-11</td>
<td>400</td>
<td>350</td>
</tr>
<tr>
<td>2011-12*</td>
<td>400</td>
<td>127* (Figures as on 25th August, 2011)</td>
</tr>
</tbody>
</table>

Training of Eye Surgeons in identified institutes in following areas are provided: ECCE/IOL Implantation Surgery, Small Incision Cataract surgery, Phaco-emulsification, Low Vision Services, Glaucoma, Pediatric Ophthalmology, Indirect Ophthalmology & Laser Techniques, Vitreoretinal Surgery, Eye Banking & Corneal Transplantation Surgery etc.
<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Achievement (%)</th>
<th>%age of surgery with IOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-08</td>
<td>50,00,000</td>
<td>54,04406 (108.09)</td>
<td>94</td>
</tr>
<tr>
<td>2008-09</td>
<td>60,00,000</td>
<td>58,10336 (96.83)</td>
<td>96</td>
</tr>
<tr>
<td>2009-10</td>
<td>60,00,000</td>
<td>59,42578 (99.04)</td>
<td>95</td>
</tr>
<tr>
<td>2010-11</td>
<td>60,00,000</td>
<td>60,31,678 (&gt;100%)</td>
<td>95</td>
</tr>
<tr>
<td>2011-12*</td>
<td>70,00,000</td>
<td>7,95,923 (as on 25th August, 2011)</td>
<td>95</td>
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Percentage of Cataract Performance with IOL Implantation: 1994-2010-11

[Graph showing percentage of cataract performance with IOL implantation from 1994 to 2011.]
Fig: Donated Eyes collected during last Five years, India
School Eye Screening programme-2010-11

- Teachers Trained: 14053
- Children Screened for RE: 31556221
- Children detected with RE: 1043003
- Provided free glasses: 548611
Free glasses provided during last five years

- 2007-08: 512020
- 2008-09: 494484
- 2009-10: 505843
- 2010-11: 548611
- 2011-12*: 26634
Thank you for your attention