Strategies for production of middle and primary level workers

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Aravind eye care system
Madurai
Estimates of Blindness in India

Population : 1 Billion
Est. number of Blind : 13 Million
Available Ophthalmologists

In Govt. - 3000

In private - 7000
### Ophthalmologists: Distribution

<table>
<thead>
<tr>
<th>Category</th>
<th>Popln.</th>
<th>Oph.</th>
<th>Pop/ Oph</th>
</tr>
</thead>
<tbody>
<tr>
<td>In 23 cities with Popln. &gt; 1m</td>
<td>8.4%</td>
<td>43%</td>
<td></td>
</tr>
<tr>
<td>In 33 cities with Popln. 0.5 to 1 m</td>
<td>2.5%</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Rest of the country</td>
<td>89.1%</td>
<td>43%</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Total</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>21,000</td>
<td>219,000</td>
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</tbody>
</table>
Transition of eye care providers in India

Doctor – Clinic focused

for better efficiency

Skilled personnel to handle technological advancements

Doctor - Community focused
VISION 2020-Indian priorities

- Cataract backlog
  +
- Diabetic retinopathy
- Glaucoma
- Corneal opacity

*Ophthalmologist can handle*

*Refractive errors and minor eye ailments*

*Trained personnel can handle*
What is the option and why?

MLOPs

• Available in the local community
• Cost effective
Mid level ophthalmic personnel

Non doctor professionals working only in eye care

Facility based
- Ophthalmic assistant
- Optometrist
- Ophthalmic technician
- Optical dispensing
- Instrument technician
- Camp organiser

Community based
- Independent worker
- Community based rehabilitation worker
Role of MLOP

• Patient evaluation
• Monitoring
• Diagnostic tests
• Surgical assistance
• Counselling
• Proper direction/referral
Impact on the Ophthalmologist

- More surgery
- Improve quality
- Training

Ideal Ratio:
4 MLOPs per ophthalmologist (hospital setting)
One per 25,000 population
Community based
Current Status (Private)

- Very few trained refractionists / optometrists
- ON THE JOB TRAINED with very diverse skill levels
Current Status (Government)

- A small number of trained optometrists
- Nurses posted on rotation to eye department without any special ophthalmic training and are then often transferred to other departments
Training programs available

Govt formal programs - PHC level

Private formal programs – institutional needs

based on individual practice 
On the job training  

Variation in quality of training
India has

196 Universities
8111 colleges
887 polytechnics

Only 3000 optometrists
## Requirement for a Million Population

<table>
<thead>
<tr>
<th>Role</th>
<th>What we have</th>
<th>What we need</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ophthalmologist</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Hospital based MLOPS</td>
<td>10-20</td>
<td>80-100</td>
</tr>
<tr>
<td>Community Based MLOPS</td>
<td>10</td>
<td>30-40</td>
</tr>
<tr>
<td>CBR Workers</td>
<td>?</td>
<td>15-20</td>
</tr>
</tbody>
</table>
Desired Ratio of MLOPS

- **Hospital based** - Ideal ratio of MLOPS per ophthalmologist: 4 to 5 to carry out all repetitive skill based activities

- **Community based** - Independent workers: One worker per 25,000 population to provide refraction, primary eye care and referral services
What can hospital Based MLOPS do?

• In the OPD carry out all measurements – VA, tonometry Fields, Biometry, Refraction, contact lens fitting
• In the OR – anaesthesia, patient preparation, dressing, assisting, sterilisation
• In the ward – administer drugs, identify problems early
• Counseling at all stages
Community Based Independent Worker

• More under the government
• Deal with common eye ailments in the community
• Refraction and prescription of glasses
• Provide Better coverage and enrich the work of hospital based staff
Community Based Rehabilitation worker

- Rehabilitation of the blind
- Identification and referral of treatable blindness
- School eye screening
Primary health workers

- Integrate primary eye care into health care
- Cater to 5000 population

- Unskilled workers, volunteers
- Community health workers

Eye health promotion
Register maintenance
Identification of blind
Instruments maintenance technicians

- Installation of equipment, testing, Routine care
- Preventive maintenance, Repair
Role of Camp Organizer

- Plan for eye camps in his area
- Approach sponsors
- Provide physical facilities
- Coordinate the medical team
- Create awareness
- Arrange for transport of patients
Needs for the existing MLOPS

- **Uniformity in nomenclature**
- Re emphasise basics and re-orient to current technologies (through CME)
- New skills development and upgrading skills (through short term training programmes)
Enhancement

• Uniformity in teaching
• Uniformity in evaluation
• Uniform certification procedures
Immediate focus

- Review the current status
- Analyse the MLOPS in relation to needs, demand,
- Placement
- Identify needs for voluntary and private sector
- Consider various models
- Accredit training programmes
Need of the hour

- Para medical council at national level
- Categorise as hospital based and community based
- Short term Certificate courses for in house MLOPS
- Develop detailed curriculum, duration teaching methods and aids
- Develop criteria for training centres and accredit
Conclusion

• Trained MLOPs are required in large numbers for efficient eye care system
• Realisation of their contribution is crucial to fulfil the Vision 2020 goals