

**VISION 2020: The Right to Sight – India**  
**COMPREHENSIVE PRIMARY EYE CARE – Best Practices and Models**

**Venue: Godrej Hall, 6<sup>th</sup> Floor, LV Prasad Eye Institute**

**2<sup>nd</sup> Road, Banjara Hills, Hyderabad**

**Date: August 19, 2013; Time: 8: 30 – 4:30**

**Hosted by LV Prasad Eye Institute, Hyderabad**

**Opening Session**

**Dr. G. Chandrashekar:**

Primary Eye care should not be centred around the institution but should be around the person who needs the care.

**Dr. N. K. Agarwal:**

- Currently India have 20 regional institutions but should have 1 regional institution for 3 crore population.
- We are far behind to provide eye care to community. There is deficit of medical personnel, deficit of medical supplies even basic eye drops at PHC level. PHC does not have ophthalmic assistant, MO of PHC is not much bother about eye care.
- Private providers (both not for profit and for profit) should establish parallel structure to government to support it.
- ASHA worker should have cell phone and have link with doctor (Government or private) who can provide emergency eye care.
- Government is undertaking a task of developing a foldable IEC material covering 12 topics both in English and a regional language; seek support from organisations to such IEC material.

**Dr. Col. Deshpande:**

- Need to consider what comprehensive eye care doable at PHC is and sub centre level.
- Practicality of services at each level is important and need to be well defined.
- Most important aspect of primary eye care is referral and linkage.
- Primary eye care is foundation of eye care up to tertiary level.

## **Session 1: Developing an efficient primary eye care system**

### **Presentation 1: Introduction to primary eye care and strategies to make accessible to comprehensive eye care at PHC level**

***Presenter: Dr. G.V. S. Murthy***

- There is difference between primary eye care and eye care at primary level.
- We can have comprehensive eye care at primary level.
- There are 3 levels of care as well as 3 levels of prevention i.e. Primary, Secondary and Tertiary.
- Primary eye care setting is usual entry point for clients of health care system.
- It is oriented towards promotion and maintenance of health.
- Usually primary care setting providers are 'Generalist'.
- Secondary care setting provides basic surgical interventions and providers are specialist.
- Tertiary care setting provides most complex services.
- There are 8 essential elements of primary eye care like educating populations on major health problems, promotion of food technologies (rest to be seen in PPT, if available).
- Principles of primary eye care
  - ✚ Equity
  - ✚ Comprehensiveness
  - ✚ Acceptable
  - ✚ Meaningful
  - ✚ Community participation
  - ✚ Intersectoral approach
- Health is multidimensional and has multiple interrelated determinants like social status, employment, culture, physical factors, social support and so on.
- 7A and 3Cs framework of requirements for eye care
  - ✚ Appropriateness
  - ✚ Availability
  - ✚ Adequacy
  - ✚ Accessibility
  - ✚ Affordability
  - ✚ Accountability
  - ✚ Completeness

- ✚ Comprehensiveness
- ✚ continuity

- There are 3 models of primary health care viz. Comprehensive, Selective and Medical. In eye care we use 'Selective' model as there is not much community participation but best/ideal model is comprehensive model.
- Every essential element in primary health care has meaning in primary eye care.
- WHO has guidelines on primary eye care according to which condition has to be identifies and treated or referred by trained primary eye care worker.
- Comprehensive eye care is basket of services which can be different at different levels of care and have 3 dimensions:
  - ✚ Provision of spectrum of services
  - ✚ Service delivery network
  - ✚ Human resources
- This basket of services depends on
  - ✚ Need of the community
  - ✚ Resources available
- Comprehensive eye care should be aligned with 6 building blocks of the health system.
- Conclusion: there are significant activities at primary level apart from curative which can make significant impact.

**Presentation 2: Criteria for establishing a primary eye care centre (LVPEI model) - nucleus of primary eye care and standards for functioning of primary eye care centre.**

***Presenter: DR. P.V.K.S. Varma***

- Explained LVPEI eye care pyramid
- Vision centre lies second from the bottom in the eye care pyramid.
- Vision centre planning involves assessment of demand for services, assessment of accessibility of location, Training of vision technician, instruments and most importantly community participation.
- Assessment of demand for services: Demand for services can be assessed using following parameters
  - ✚ Population of village
  - ✚ Floating population in village

- ✚ Population of Mandal
- ✚ Availability of other eye care providers
- Accessibility of the location can be assessed by using following parameters
  - ✚ Visibility within village
  - ✚ Ease of access
  - ✚ Distance from Secondary centre
  - ✚ Time required to reach secondary centre
  - ✚ Transportation available within mandal and for secondary centre.
- Training of Vision Technician
  - ✚ Eligibility for VT training in 10+2.
  - ✚ Recruitment should be from local community
  - ✚ 1 year of training at Tertiary Centre or Centre of Excellence.
  - ✚ After training deployment at local community level.
- Layout and equipments
  - ✚ Vision centre should have minimum 2 rooms, one is for reception cum optical center and waiting room for patient and another one for examination and refraction.
  - ✚ Equipments required are slit lamp, trial set, lensometer, streak retinoscope, vision drum, near vision chart, colour vision chart, L – Occluder, perkins hand held tonometer, torchlight, UPS, direct ophthalmoscope and other necessary instruments.
- Community participation: community participation is most crucial aspect of vision centre planning and can be ensured by following measures
  - ✚ Opinion of community leaders
  - ✚ Door to door survey
  - ✚ Discussion with and support of village community
  - ✚ Vision guardians and volunteers
  - ✚ Adoption of vision centre by community member(s)
- Retention of VT:
  - ✚ Recruitment from local community and develop career path for them.
- Potential of vision centre:
  - ✚ 300- 450 screenings per month

- ✚ Revenue generation around Rs. 25000 per month.
- ✚ 30- 45 cataract identification and referrals to Secondary centre
- Cost one time fixed cost of establishing a vision centre is Rs. 650000, most of which is for slit lamp.
- Conclusion: More the community participation, more successful the vision centre is in providing eye care.

**Presentation 3: Primary eye care in difficult terrain model – HR needs qualifications needed for effective management.**

***Presenter: Mr. Aaron Vaid***

- Primary eye care is integrate, participatory and inclusive approach to eye health component of primary health care.
- In difficult terrain following are issues and challenges in providing primary eye care
  - ✚ Inaccessibility
  - ✚ Lack of motorable roads and local transport
  - ✚ Low population density with sparsely populated area
  - ✚ Low level of affordability of the population
  - ✚ Low level of literacy
  - ✚ Tribal language differentiation
- Primary eye care can be seen in 3 perspectives viz. Patient perspective, health worker perspective and healthcare provider perspective.
- Patient perspective
  - ✚ Lack of awareness
  - ✚ No ownership
  - ✚ Financial constraints
  - ✚ Lack of transport
  - ✚ Beliefs, myths
- Health worker perspective
  - ✚ Lack of training
  - ✚ Lack of adequate infrastructure
  - ✚ No ownership in health initiatives
  - ✚ Aspiration to progress in life

- ✚ Lack of incentives/ motivation to work
- ✚ Administration burden in terms of reporting, data entry in registers
- Healthcare provider perspective
  - ✚ Lack of trained manpower
  - ✚ Attrition
  - ✚ High transportation cost
  - ✚ Lack of infrastructure provision
  - ✚ Financial feasibility
- There are several models like LVPEI model, participatory eye health delivery model of community participation, African model of task sharing.
- Ideal model of primary eye care should have a perfect match of Human resource and their skills and infrastructure. In achieving this match the gaps in infrastructure, training, ownership and leadership has to be and can be bridged by providing basic infrastructure sharing of infrastructure between government and non government organisations, customized and short trainings and CMEs, task sharing and discussions on public platform.
- For sustainability of model 3Cs required
  - ✚ Collaboration
  - ✚ Cooperation
  - ✚ Convergence
- Primary eye care road map
  - ✚ Identify key stake holders
  - ✚ Appropriate training
  - ✚ Strong linkages
  - ✚ Evidence based approach

#### **Presentation 4: Training and human resource requirements for primary eye care centres**

***Presenter: Dr. Ramesh S. Ve***

- Comprehensive eye care needs trained personnel.
- Professional requirement for provision of comprehensive eye care is knowledge + skills + decision making skills + public health care skills.
- Training program for human resource for comprehensive primary eye care should concentrate on

- ✚ Patient examination and management.
- ✚ Optical dispensation and referral
- ✚ Documentation
- Soft skills are required for good communication with the patient.
- IELOCS and skills matrix
  - ✚ Skill matrix developed for primary eye care
  - ✚ Clarity in role and responsibilities
  - ✚ It will help in maintaining uniformity in skills need
  - ✚ Training program needs to be developed on this skill set.
  - ✚ Needs further inclusions for growing needs.
- Need of regulatory authority in optical field.
- Status of schools of optometry is in question.
- Up scaling of quality of optometry course is need of the hour.
- Stop non standard training programs
- Scopes
  - ✚ Bridging programs
  - ✚ Job oriented training
  - ✚ Speciality training
  - ✚ Holistic rehab
  - ✚ Certificate programs
- Conclusion: Evolve a holistic skill matrix including all cadres, develop and modify programs according to need, monitor and upgrade training programs.

## **Presentation 5: Sustainability of primary eye care centres – vision centre model**

***Presenter: Dr. Rohit Khanna***

- \$269 Billion lost productivity due to Refractive Error.
- Refractive error affects the education, personality development, employment, career etc.
- Functions of vision centres 3Rs
  - ✚ Refraction and dispensation
  - ✚ Recognition
  - ✚ Referral
- 33% of at Secondary centre are referred from vision centre
- Vision centre screening more patients than PHCs at some places
- Cost recovery of vision centre varies according to its geographical location

- ✚ Tribal area – 45% cost recovery
- ✚ Rural area – 65 – 75% cost recovery
- ✚ Semi urban area – 100 – 150% cost recovery
- Study have shown that the cost to the patient have reduced by availing services at vision centre.

**Presentation 6: Arvind's model of PEC, evaluation tools for assessment of primary eye care centre effectiveness**

***Presenter: Dr. Datta***

- Goals of monitoring:
  - ✚ Is patient is getting best possible care?
  - ✚ How to maintain EMR, outpatient registration, advise for intervention, glasses prescription
- Organisational structure
  - ✚ VT – 2
  - ✚ VCC – 1
  - ✚ Field worker – 1
  - ✚ MO incharge of VC at base hospital.
- Monitoring of Service delivery
  - ✚ Surgery advise and acceptance
  - ✚ Spectacles advise and acceptance
  - ✚ Tracking of lost follow up and non compliant patients by home visits by field worker
  - ✚ ½ yearly and yearly performance evaluation
  - ✚ Every month a team of 5, which includes Ophthalmologist, VCC, housekeeping, maintenance and IT person visit vision centre.
- Performance monitoring indices
  - ✚ Cost recovery
  - ✚ Aimed 100% cost recovery within 2 years. (65% from spectacle selling, 20% from OPD charges and 15% from medicine and lab investigation)
- Paramedic does not diagnose but the ophthalmologist seating in the base hospital does through telemedicine.
- EMR is accessible from any location.



## Group Discussion of Group 1

### Topic: Developing an efficient primary eye care system

- Characteristics of an efficient system
  - ✚ Standard service delivery at primary eye care level
    - R.E. – Dispense glasses and suspect and recognize following disorders
      - Cataract
      - Glaucoma
      - Childhood Blindness
      - Diabetes risk score
    - School screening (teacher’s training)
    - Anganwadi screening
    - Health promotion/ awareness
    - Liaison and develop linkages with PHC staff
  - ✚ Infrastructure:
    - 300 to 500 sq ft built up
    - 2 rooms
    - Furniture including spectacle showcase
  - ✚ Equipments required (minimum):
    - Vision drum
    - Near vision chart
    - Streak retinoscope
    - Trial set and trial frame
    - Slit lamp
    - Applanation tonometer
    - Direct Ophthalmoscope
    - Spirit swabs
    - Lensometer
    - Online UPS
    - Glucometer
    - BP apparatus
    - Torch light
    - Occluder
    - Laptop
    - Mobile phone
    - Telemedicine connectivity

- ✚ HR required:
  - Vision Technician – Career development path well established
- ✚ Service delivery:
  - Coverage for 50,000 population but can vary from 25000 to 150000 depending upon geographical terrain and population density.
  - Number of working days 280
  - Total patients examined per day 15
  - Identification with visual impairment 3 to 4
  - Spectacles dispensed 2 to 3
  - Referrals to secondary center 2 to 3
  - School screening per month 2
  - Community screening per month 2
- Monitoring
  - ✚ Strong linkage with secondary centre
  - ✚ Each set of 10 centers will have a Vision Center Coordinator
  - ✚ Community Eye Health Program integrated with vision centre
  - ✚ Secondary centre team – monitoring/ reviewing/ support once a month (quality control) – leading to course correction
  - ✚ Compliance to statutory requirements
  - ✚ Equipment maintenance

### **Session 3: Innovations in Vision center Model**

#### **Topic- Electronic Medical records at Primary Eye Care centre-**

#### ***Ms. Annapurna Kuchibhatla***

Ms. Annapurna started with a NEWS video. It was about the Prestigious NABARD award (given for Rural Innovations) which LVPEI received for EMR.

- She said that LVPEI has included EMR in 3 VillageVision Complex consisting of 2 tertiary Centers, 4 Secondary Centers, 3 city Centers, 13 Vision centers. In terms of patients LVPEI has included 3.5 lakhs of patient entries under EMR. All these centers are working paperless due to introduction of EMR. All the work related to registration, case history taking, order of spectacles, patient referral, etc has become paperless with the help of EMR.

- She gave information on the resources required for EMR setup at VC which includes 1 Computer, 1 UPS, 1 Printer, Internet facility and Vision Technician should have knowledge to handle the system. She also mentioned that VT`s are comfortable and have easily adjusted to the working with EMR.
- There are various advantage of EMR over paper based system such as single patient record all across, easy tracking of the patients, etc.
- There is a EMR Support and Installation team [ESIT] which works under 3 categories namely-
  1. Training
  2. Hardworking and Networking
  3. Coding and Bug Fixing.
- Challenges faced -
  1. Connectivity – As we have our VC at remote areas, the connectivity of internet connection is a major problem faced.
  2. Electricity –Due to Long hours of load shedding, electricity becomes a hurdle in the functioning of EMR.
- Road ahead –

She mentioned there is a need to work on

  1. Analytics
  2. Participation in clinical trials.

**Indigenous Low Cost Tele-Ophth- how to make it work for you**

**Dr. Abhishek Dagar**, Consultant, Ped. Oph.Venu Eye Inst. New Delhi.

- Dr. Abhishek said that there is need of Tele-Opth in our country is due to the low doctor: patient ratio.
- Then he told about the misconceptions in the society regarding Tele-Opth and solutions to these misconceptions such as-
  - Will the patient be satisfied with tele-opth? (Misconception)
    - Dr.Abhishek—Yes we are working with full OPD`s
  - Is it Expensive ?
    - Dr.Abhishek – No
  - Is it Reliable ?
    - Dr.Abhishek– Yes, various research studies have shown that Tele-Opth is reliable.
  - Workload will increase on Doctors.
    - Dr.Abhishek– NO actually the workload decreases.
  - There will be Legal Implications.
    - Dr.Abhishek–No since it is internationally accepted.
- He said to look at the actual impact of Tele-Opth on service delivery, 2008 onwards we are closely working with DIT (Department of Information Technology) and DST.
- Slit lamps with Samsung mobile with good camera (he mentioned price starting from 6000 onwards) can be used for taking the photographs and uploading.
- Benefits of Tele-Opth—
  1. Patient`s benefit- It is not the substitute for a Doctor but it adds value to the services. It adds value to the service delivery where there is no consultation.
  2. Doctor`s benefit- It can act as a filter. If patients not needing surgery will be filtered at Vision centers and need not to visit secondary center. So this

will decrease the workload on the doctors i.e. patient movement to the hospital will be modulated.

### **Concluding Session**

#### **Executive summary of work shop: Concluding remarks:**

##### **-Dr. G. N. Rao**

- Dr Rao summarized that in the conference we had a discussion on Comprehensive Eye care which includes prevention of eye diseases, curative aspects and rehabilitative aspects of Eye.
- Dr Rao explained that we have our Vision Centers located in such places where there is no eye care facility. LVPEI never goes to any place where services already exist.
- Our philosophy for Vision Center is that anyone on the street would be able to walk-in for treatment. LVPEI does not charge for any check-up at Vision Center.
- Vision center is established in remote or tribal areas for 50,000 population.
- For Vision Centers, Linkages with the secondary Level is important otherwise they will languish.
- LVPEI intends to create a health seeking behavior in the people.
- Primary healthcare is not sustainable anywhere (also in developed countries). Since Primary Health Care is for the most neglected ones while trying to make primary healthcare sustainable and making money, the people should not be neglected..
- We decided to train a person (with 10+2 Qualification as VT) for 1 year and send him to give services to rural area.
- When opportunities are provided to youths from rural areas they blossom. Then Dr Rao gave example of Mr. Srinivas who previously joined LVPEI after 10+2 as a Vision Technician and after that he did his graduation, post-graduation and

PhD.(everyone gave a applaud). All the education he completed was being with and working with LVPEI.

- Regarding genesis of the word Vision (for VC and VT), Dr Rao said we use word vision and purposefully avoided the word of ophthal.

**Dr. N K Agarwal**, Deputy Director General (Ophthal), National Programme for Control of Blindness, Ministry of Health and Family Welfare, Government of India, NirmanBhawan, New Delhi;

- A normal person just wants to know where he/she can go for his eye disease such as conjunctivitis or cataract? We can deploy a person as per our need. We can train them for various courses ranging from 1 year, 2 years, 4 years, etc. They should be able to properly treat them or refer the patient to proper place. Providing of services in most remote location is most important.
- There are 5 optometrist bodies in Indian which should unite and decide the required type of course and its duration.
- Availability of technician is important.
- Accessibility at the need of time is also important.

**Dr. TP Das**

- All type of health persons are needed whether he/she is trained for 1year, 2year or 4 year. We should look for removing barriers.

**Dr. ChandrashekarShetty**, Technical Advisor, LCIF

- We should decide specific training programs and their duration as per the need of the society.
- What is relevant today may become irrelevant tomorrow.

