

introduced under the programme for reaching the underserved population in rural & tribal areas. The results are very encouraging and being scaled up in a phase manner. The programme has been fully integrated under National Rural Health Mission [NRHM] to enhance the reach and coverage including utilization of services of community link worker like Accredited Social Health Activist [ASHA] and Anganwadi workers.

NEW INITIATIVES UNDER THE PROGRAMME

Other new initiatives include funding for construction of eye wards and dedicate eye OT especially in NE States and Hilly/ underdeveloped states and appointment of eye surgeons, eye donation counselors and para-medical ophthalmic assistants [PMOA] especially for the new or districts where there are none. The recurring expenditure of such workforce will be borne by Government of India till the term of eleventh plan period and thereafter it would be taken up by respective State/UTs. Funding for provision of latest equipment and instruments for establishing & strengthening eye care services in government institutions i.e. vision centre at primary health centre [PHC], community health centre [CHC] through district hospital and medical colleges. Regional Institutes of Ophthalmology [RIO] and selective medical colleges are being developed into centres

of excellence for providing pediatric ophthalmology / retina units / low vision units.

Non-governmental sector providing free services to needy population are being supported through recurring and non-recurring grant as per the approved schemes. Capacity building of health personnel is another important strategy for improving their skills and updating them on issues relevant to the programme for delivery of eye care services. Government of India [GOI] coordinates the in-service of eye surgeons working in public sector and provides funding to States/ UTs for other health care staff including medical officers. Paramedical and community link workers. Advocacy and social mobilization including Information, Education & Communication [IEC] activities have made a impetus in improving community awareness.

CONCLUSION

Funds utilization is an indicator for planned activities being under taken and during last five years utilization has been to the tune of nearly 100% of the allocation. National Programme for Control of Blindness [NPCB], Government of India through States/UTs and all other stakeholders and partners are consistently moving forward in advancement of comprehensive eye care services and hopefully would be able to bring the level of blindness in the country from current status of 1.0% to 0.3% by the year 2020.

Tackling Blindness in India: Have We Done Enough?

(II)

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Abstract: India was one of the first countries, even prior to the World Health Organization to have a focal National Programme for Control of Blindness (NPCB). This came into existence in 1976. This followed the long tradition and commitment of the leaders in the eye care to the community needs. During the last three and a half decades NPCB established strong public private partnership, gathered necessary evidence through a series of surveys and launched a focal programme in mid 90s for the control of blindness due to cataract which then accounted for 80% of all blindness. This focal effort financed by a World Bank Loan helped in strengthening the infrastructure of secondary and tertiary eye care services both in the government and voluntary sectors. A decentralized structure with greater autonomy at State and District level emerged and this enhanced the effectiveness of the programme. All this led to laying a strong foundation to take on the future challenges and for what needs to be done in the years to come. The future challenges include building infrastructure and service delivery process to deal with conditions other than cataract for which is being adequately addressed in many parts of the country. The challenge will be to reach the marginalized populations who are often the poor, uneducated and living in rural areas. Considering that roughly one in four Indians will be in need of eye care, there will have to be a greater emphasis on human resource development and establishing primary eye care services. Since it is the access, availability and competence of the eye care team which will drive universal coverage and comprehensive delivery of eye care services. The achievements thus far have already earned India an iconic position in eye care amongst the developing countries. Addressing the future challenges successfully will not only help us to maintain this status but more importantly make sure eye care reaches everyone in need of it.

INTRODUCTION

India is a country over a billion populations with tremendous diversity in all conceivable factors such as economic, population density, religion, culture, literacy, geographic access, etc. As a result there will always be issues relating to equity and coverage of eye care. Thus the answer would be “yes”, we have done enough in some instances and “no” in other instances as there is still a lot to be done.

WHAT HAS BEEN DONE?

India has a long tradition of community orientation in eye care probably brought in originally by foreign missionary

ophthalmologists like Dr. Rambo and Dr. Fredrik Kugelberg which was subsequently institutionalized by equally committed and compassionate Indian Ophthalmologists like Dr. M.P Mehrey and Dr. Mathura Das. This tradition of compassion and community orientation with a special focus on the poor translated into a National Programme for Control of Blindness in the year 1976. India was one of the very first countries to do this even before the World Health Organization created a division for blindness and eye care.

Rapid strides in eye care happened during the last 15 years with the advent of Intraocular Lens and with the Government of India taking the bold step of borrowing from the World Bank a sum of US\$ 118

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million for a programme to control cataract blindness¹ – the leading cause of blindness as established by several population based studies. Though the World Bank funding ended, the government's commitment continually increased reflecting in more than tripling the fund allocation to a sum of Rs. 1250 crores – almost US\$ 300 million, in the Eleventh Five year plan². India has also been fortunate to have strong presence of all of the major International eye care NGOs. These include CBM, Sightsavers, Operational Eyesite Universal, ORBIS International, Lions Club International Foundation, Rotary International and SEVA foundation. More recently Right to Sight (Ireland) and Light for the World have also established their presence. The following are some of the important aspects of what has been achieved with the commitment, political will and funding.

CAPACITY BUILDING

This probably was the most important foundation and this happened through multiple formats. Funding was provided to improve the Government infrastructure facilities at the Primary Health Centres, District Hospitals, Teaching Hospitals and the Regional Institutes of Ophthalmology^{2,3}. At the Primary Health Centres facilities were created for Refraction services; at the district hospitals separate eye ward and a dedicated ophthalmic operation theatre were constructed in the most district hospitals; for the RIO and teaching hospitals substantial funds were provided for up gradation through purchase of capital equipment. Similar capital grants were also given to select voluntary eye hospitals in the NGO sector to enhance their own infrastructure capacity^{2,3}.

The other important aspect of capacity building has been enhancing the surgical skills through training. The early 1990s saw the emergence of cataract surgery with Intraocular Lens Implant as the preferred procedure⁴. This required large scale training of existing ophthalmologist to make this transition in a manner that was safe for the patients. Several institutions were identified as training centers and through them several thousand ophthalmologists from the government, private and voluntary sector were trained. Adequate funding was provided for training the Government Doctors and for "training the trainers" in the teaching hospitals. The infrastructure development included the provision of surgical microscopes, A-Scan ultrasound and YAG Laser thus making the training productive⁵.

The third aspect of Capacity Building related to putting to use the Infrastructure development and the training in modern cataract surgery so that it actually results in increased number of cataract surgeries. This was done by providing a subsidy for cataract surgeries on patients mobilized through eye camps. The focus was on IOL surgeries and ensuring that they happened in hospital settings bringing a clear end to surgeries in make-shift operating rooms at the camp sites. These inputs almost quadrupled the cataract surgical output and thus the capacity of the country.

DECENTRALIZED STRUCTURE

Given the size of India, any programme including those sponsored by the Central Government is most effectively implemented through a decentralized approach. This process was piloted and refined by DANPCB a unit of DANIDA which worked very closely with the Ministry of Health, Government of India⁶. The encouraging results of this pilot study in 5 different districts spread across 5 different states of India was scaled up nationwide with the implementation of World Bank funded cataract control programme. This decentralization process continues to be in practice though it underwent several

changes over time and in the present time it has become part of the decentralized structure of National Rural Health Mission.

TECHNOLOGY

The practice of ophthalmology is very technology intensive, for diagnostic work, surgery and the various consumables used. Recognizing this ophthalmic community in the country was able to present a case successfully which led to the abolition of import duty for sight saving equipments and consumables like IOLs, Sutures etc. This single decision led to rapid adoption of modern technology across the country, ensuring that the common man received the current state-of-art eye care available elsewhere in the world. This easy access to technology has also helped the technical competencies of the eye care personnel to continuously evolve and improve.

NATIONAL PLAN AND GOVERNMENT COMMITMENT

India stands tall amongst the other developing countries with reference to eye care. This stems out of having a well thought through national plan developed with participation of all stakeholders. The plan and its execution have been significantly strengthened by the funding commitment from the government and the alignment of international funding agencies towards the national plan. A sound plan, committed funding and alignment to the goal have all helped in effective implementation.

VISION 2020-THE RIGHT TO SIGHT INDIA

A significant volume of eye care in India is provided by the voluntary sectors. This is estimated that over 50% comprising of some 1300 voluntary eye hospitals. The formation of the VISION 2020 – The Right to Sight India has provided a platform for all the nongovernmental organization to come together. Such a platform has enhanced the effectiveness of advocacy, influencing policy and promoting best practices. VISION 2020 – The Right to Sight India developed the draft Eleventh Five Year Plan for the Ministry of Health and successfully lobbied for its approval with the Planning Commission and the Finance Ministry, resulting in the provision of Rs. 1250 crores – a threefold increase over the previous plan allocation.

PUBLIC PRIVATE PARTNERSHIP

With the presence of strong voluntary sector in eye care it is but natural that there is also a strong Public Private Partnership⁷. Today government achieves significant volume in the delivery of eye care through partnership with the private (non government voluntary) sectors and supporting such work with financial subsidy. This partnership is further evolving into the voluntary sector in actual running some of the government of eye hospital in areas where the government is facing tremendous difficulties in staffing and the upkeep of the infrastructure. A beginning has been made in 7 districts of Bihar. The initial successful experience is likely to see the proliferation of such Public-Private Partnership to the other areas in the country as well.

EVIDENCE BASED PLANNING

Over the last two decades the national plan and the policies have been based on evidence gathered through a series of population based studies, clinical trials and operations research. The setting of national targets, switch to IOL surgeries, shifting completely to hospital based surgeries and decentralization have all been based on evidence

generated by different studies and pilot projects.

OPHTHALMIC INDUSTRY

The ophthalmic industry has evolved to truly make India self sufficient for most of its needs in equipment, medicines or surgical consumables. The products are available at rates affordable by the Indian economy. This has opened up the markets of the entire developing countries. India today enjoys the position of being the major supplier of ophthalmic medicines and surgical consumables to the developing countries.

WHAT STILL NEEDS TO BE DONE?

Having had an impressive track record in eye care, a lot more still needs to be done. The details of this are articulated in the eye care plan under the Eleventh Five year plan ⁸.

SERVICE FOCUS

Till now the eye care has been synonymous with Cataract and even in it there are issues. It is recognized that there are inequalities across the country with extremely low Cataract Surgical Rates in the North Eastern states, Bihar, Jharkhand, Orissa, Uttaranchal and Jammu & Kashmir. There are still issues in reaching the rural population, tribal areas and ensuring gender equity. These issues need to be addressed and under the current five-year plan India is aiming for a Cataract Surgical Rate (CSR – number of cataract surgeries per million people per year) of 8,000 (from the current national average of about 5,000) to address the blindness and visual impairment from cataract. Achieving this would make India as having one of the highest CSR in the world.

The current plan lays equal emphasis on non cataract conditions as well, covering simple yet neglected conditions like Refractive Error to more complex diseases of the Retina. This would be a major challenge in shifting the focus, perspective, attitude and practice of the eye care provider community from being cataract centric to becoming comprehensive provider of eye care services.

INFRASTRUCTURE

While India has built a strong secondary eye care infrastructure, thanks to the cataract centric programme. However, the Primary Eye Care is almost nonexistent and this holds the key to universal coverage. A lot of headway has to be made in this direction to address various inequalities associated with gender, economy, literacy and geographic location. On the other end of the spectrum there is also a need for truly well developed tertiary centres which can provide comprehensive advanced care, provide training and engage in research. Though institutions exist in this category by way of teaching institutions and Regional Institutes of Ophthalmology, the competencies in many have to be developed significantly.

HUMAN RESOURCE

The new goals and the intention to provide more comprehensive eye care with increased coverage requires significant changes and improvements to the status of Human Resources and training activities in the country⁹. It is increasingly recognized that one hand the quality of Ophthalmology residency training has to improve dramatically. It is equally recognized that the development of other eye care specific cadres such as the hospital based ophthalmic support personnel, community based eye care workers, Optometrists, Eye Care Managers, technicians etc, have to be given the importance it deserves. Today this group which really ought to be in the ratio of 6 to 7 per ophthalmologist is nonexistent as a formal work force. Today there are no national bodies to accredit the training for this cadre, stipulate standards, curriculum or in the certification process. A lot of work has to be done in this area and the government has an important role in making this happen.

CONCLUSION

Overall, a strong foundation has been built for eye care. There is a strong commitment by all stakeholders – Government, International NGOs, voluntary eye hospitals, private practitioners, ophthalmic industry and the various associations. We have a sound plan and reasonable funding commitment. There is a strong alignment towards the plan and its goals. The big shift in the implementation would be towards quality in delivery, providing comprehensive eye care, ensuring universal coverage and building a strong base to develop all cadres of personnel in the eye care team.

REFERENCES

1. *Jose R and Bachani D. World bank-assisted cataract blindness project. Indian Jr of Ophthalmology 1995; 43(1) 35-43*
2. *Jose R, Rathore AS, Rajshekhkar V, Sachdeva S. National Programme for Control of Blindness (NPCB) in the Eleventh (11th) Five-year Plan Period. Community Eye Health 2008; 21(68):s115-s116.*
3. *National programme for control of blindness: scheme for Participation of voluntary organizations - 10th Five Year Plan 2002-2007.*
4. *Levine R. Case Studies in Global Health Millions Saved - Treating Cataracts in India, Case 19. 2007; 139-146.*
5. *Dua AS. National Programme for Control of Blindness. NCMH Background Papers - Burden of Disease in India 2005; 299-304.*
6. *Ravinder Pate Village Blindness Control Societies - A concept for implementing VISION 2020: The Right To Sight Community Eye Health 2007; 20 (63) s98.*
7. *Rao GV. Bridging the gap: Barrier at community level between service provider. Community Eye Health 2004; 17(51):s49-s50.*
8. *Pattern of Assistance for National Programme for Control of Blindness during the 11th Five Year Plan-Government of India, Ministry of Health and Family Welfare 2008 <http://mohfw.nic.in/writereaddata/npcbdata/mainlinkFile/File71.pdf>.*
9. *Comprehensive Planning of Human Resources for Eye Care to Meet the Goals of Vision 2020: The Right to Sight. World Health Organization, SEA-Ophthal-120 2002..*

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