Role of mid level ophthalmic professionals in Nepal – experiences to share!

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Before 1980, there were only three ophthalmologists outside the national capital Kathmandu and only 16 hospital beds dedicated to eye patients for a population of 14 million in Nepal. There was no other trained human resource in eye care to support this limited number of ophthalmologists. In 1981, a national programme for the prevention and control of blindness was launched in Nepal. The Nepal National Blindness Survey reported 0.84% of the population to be blind in both eyes using the best-corrected visual acuity definition in the better eye of <3/60. The prevalence of blindness among those aged 45 years and older was estimated at 3.77%. It was estimated that 80% of this blindness was either curable or preventable. Age related cataract was the major cause of blindness – 83% among those ≥45 years (65.4% among all ages).

Blindness was identified as a major public health problem that needed urgent attention. Existing infrastructure and human resources were far too low and insufficient to combat the huge magnitude of blindness. Specific programme objectives based on these survey results were established, and the country programme started building physical infrastructure and training human resource necessary to address the problem. Primary, secondary and tertiary care facilities dedicated to the prevention and treatment of eye diseases were established on a need-based priority in different areas of the country. Resources from international, national, non-governmental and government organizations were mobilized and coordinated to implement this national strategy.

Along with training of ophthalmologists to cater to the immediate need of eye care services and promote primary eye care, a desperate need was felt for an additional cadre of mid-level human resources such as ophthalmic assistants. Thus, indigenous training programmes for ophthalmic assistants were started in July 1981, in joint collaboration between the Government of Nepal (GoN) and WHO.

The training programme was continued by Nepal Netra Jyoti Sangh at Himalaya Eye Hospital, Pokhara, and Lumbini Rana Ambika Eye Hospital, Bhairahawa. The programme has been recognised by the GoN, the Council for Technical Education and Vocational Training (CTEVT) and the Health Professional Council. To cater to the increasing demand for this mid-level human resource, Nepal Eye Hospital in collaboration with CTEVT and Tilganga Eye Center with affiliation to Kathmandu University, are also conducting training programme for OAs.

Aims and objectives

The ophthalmic assistant is a professional ophthalmic health worker, who has been given three full years’ training in ophthalmology and related health sciences. The aim of this training is to produce compassionate mid-level ophthalmic human resources that can play an important role in the eye care delivery system within the hospital and in the community. The objectives are to:

1. provide efficient human resources to support ophthalmologists in providing eye care services at the secondary/tertiary levels of the eye care delivery system;
2. provide appropriately trained human resources to deliver primary eye care services independently at Primary Eye Care Centres;
3. provide appropriately trained human resources to supervise primary eye care personnel at health post level and community levels;
4. provide technical and managerial support at all levels of the health institute; and
5. plan and carry out community eye care programmes.

**Brief job descriptions**
A trained ophthalmic assistant would be able to perform the following jobs at different levels of eye care services throughout the country:

- diagnose and initiate treatment/appropriate management of all common eye problems, including refractive errors (blinding and potentially blinding conditions);
- recognise and refer to an ophthalmologist those conditions that require more sophisticated care;
- organise and conduct outreach activities such as screening camps, school health programmes, etc.;
- impart primary eye health education on health promotion and prevention of preventable eye diseases;
- select and prepare patients who require intra-ocular surgery;
- assist the ophthalmologist in ophthalmic surgery;
- carry out postoperative management of the eye patients after surgery;
- perform eyelid and other specified minor extra-ocular operations;
- perform practical procedures involved in examination, investigation and treatment of common eye problems;
- manage an eye clinic along with keeping records and supplies;
- supervise primary eye care personnel;
- perform refraction and prescribe spectacles to patients;
- perform a basic clinical Low Vision Assessment and prescribe necessary interventions;
- ensure preventive maintenance and assured working condition of all types of instruments and equipment used in eye care; and
- perform patient counseling and service marketing in eye care.

**Eligibility**
- The candidate should have passed SLC with science (compulsory), scoring at least 45% marks aggregate.
- The candidate should have completed 18 years of age, but be below 25 years. This age bar can be extended to a maximum of 28 years as an upper limit, in case of in-service training sponsored by another eye hospital in the country. The age limits are applicable at the time of enrolment for the training.
- Candidates from remote areas and with a health care (CMA, AHW, etc.) or science background (ISC, BSc) are given priority. Minimum aggregate marks in SLC are not applicable to these candidates. A remote area is defined as a district that has no permanent eye care services at the time of enrolment. To be eligible as a remote area candidate, a person should have passed SLC from the predefined remote districts.

**Duration of course**
The trainee undergoes 3 years’ training at a recognized training institution or eye hospital and its community programmes and passes the certifying or qualifying examination to become eligible for the final examination conducted by CTEVT.

**Course content/Lesson plan**
The ophthalmic assistant training programme under NNJS comprises theory classes, clinical presentations, and practical hospital-based and community-based eye care activities for three years. The total credit hours allocated for the training are 4500.

The training programme under Nepal Eye Hospital and Tilganga Eye Care Center includes additional classes in basic sciences such as physics, chemistry, biology, zoology, social sciences and literature to enhance its academic value.

**Distribution of trained ophthalmic assistants**
(O See chart)
Ophthalmic assistants are not merely working in eye hospitals located in major cities of the country, they also provide primary eye care and increase awareness in rural eye centres throughout the country. They have covered all zones and 55 of the 75 districts of the country. However, the zonal distribution is not rational. The zonal distribution is as follows:

- Mahakali Zone – 3; Seti Zone – 18; Bheri Zone – 21; Karnali – 3; Rapti Zone – 4; Dhaulagiri Zone – 1; Gandaki Zone – 20; Lumbini Zone – 43; Bagmati Zone – 82; Narayani Zone – 31; Janakpur Zone – 16; Sagarmath Zone – 23; Koshi Zone – 15; Mechi Zone – 23; Abroad – 7; Not working – 5; Total – 315

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<th>1st year</th>
<th>I. Basic Sciences</th>
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<td>a) Human Anatomy and Physiology</td>
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<td>b) Fundamental Nursing Theory</td>
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<td>c) Ocular Anatomy and Physiology</td>
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<td>e) Ocular Microbiology, Pathology and Pharmacology</td>
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<td>II. Ocular Disorders</td>
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| 2nd year | i. Community ophthalmology | 50 hours |
|          | ii. Systemic diseases related to eye | 50 hours |
|          | iii. Optics, Refraction, Orthoptics and Low vision | 100 hours |
|          | iv. Medical Ophthalmology | 150 hours |
|          | v. Surgical Ophthalmology | 150 hours |
|          | Total Theory | 500 hours |
|          | Practical | 1000 hours |

| 3rd year | i. General Ophthalmology Theory and Practical | 150 hours |
|          | ii. Optics Refraction, Orthoptics and Low Vision Theory and Practical | 100 hours |
|          | iii. Community Ophthalmology, Health Education, Hospital Management | 175 hours |
|          | iv. Maintenance of Ophthalmic Equipment and instrument | 50 hours |
|          | Total Theory | 475 hours |
|          | Practical | 1025 hours |
Coverage of ophthalmic assistance by district (Nepal)

OA training centre and annual production
At present two eye hospitals under Nepal Netra Jyoti Sangh, Shree Rana Ambika Shah Eye Hospital, Bhairahawa, and Himalaya Eye Hospital, Pokhara, Nepal Eye Hospital Tripteshwor and Tilganaga Eye Center, Kathmandu, are conducting the ophthalmic assistants training programme. On an average 30 to 40 ophthalmic assistants are produced annually by these centres.

Projection of required human resources
Ophthalmic assistants to meet the objectives of the VISION 2020 programme
As per WHO’s VISION 2020 guidelines there should be a provision for a Vision Centre or a community eye care centre for 50,000 population. But due to the remoteness and topographic nature of the country where high mountains are sparsely populated, this estimation may be appropriate to consider as the upper limit in the context of Nepal. A simple calculation reveals the need for at least 500 ophthalmic assistants to man primary eye care centres throughout the country. At present more than 60% ophthalmic assistants are working in hospitals. The ratio might increase in the future since this subspecialty is being added in more hospitals. This indicates that at least 1500 actively working ophthalmic assistants are required to achieve the goal of VISION 2020. There is a need to double the existing capacity by producing 60 to 80 OAs on an annual basis.

OA association
Ophthalmic assistants are professional health workers. Therefore, a need was felt to consolidate their skills to enable them to thrive professionally, by ensuring their professional rights, upgrading skills regularly and protecting their professionalism. Therefore an ad hoc committee as the National Society for Ophthalmic Assistants was mooted some time ago. Due to the unfavorable situation in the country, it took some time to be formalized. Finally, a general assembly was held and a formal National Committee for Ophthalmic Assistants was elected. The central committee consists of 15 executive members representing the different geographical areas of the country. The committee meets every three months. There are zonal committees working in each zone.

Problems related to ophthalmic assistants training programme in Nepal
- **Career Ladder**: Ophthalmic assistants training was conducted in the past as per need. Thus their skills were recognized only as ophthalmic assistants; there was no planning for career growth. Later, again on a need by need basis, a provision for supervisor ophthalmic assistants was made – very few persons had the opportunity to become officer level ophthalmic assistants and above. Although no consistent plan was made nor was a performance-based career ladder developed, the ophthalmic assistants themselves proved that they could develop into a more useful eye care service cadre in the country. Now many ophthalmic assistants are promoted as trainers, supervisors, ophthalmic clinical officers and hospital managers Therefore, proper planning of a career ladder is the need of the hour to orient them in primary eye care and motivate them to work towards the goal of VISION 2020 to reach the unreached in eye care service in the country.
- **Academic Value**: Part of the OA training programme curriculum stated in recent years has been made academic. But the vocational training programme is still continuing and 90% of the OAs’ skill has no academic value. This has become a major barrier in developing their professional career in ophthalmic and other health sciences. Bright students would naturally like to grow academically. Therefore, in order to increase intake of good candidates for OA training it has become necessary to give academic recognition to existing and future candidates.

Conclusion
Though there are some problems related to recognition and a career ladder in the country, ophthalmic assistants have proven to be the backbone of eye care service in Nepal. They are multifaceted eye health professionals who can work independently in remote eye centres and assist ophthalmologists in performing investigative tasks in ophthalmic examination at sophisticated eye hospitals. There is a great demand for such personnel in the country and, at the same time, the demand has increased in other countries like those in the middle east. This has created a further shortage; hence, the training programme desperately needs to be expanded.
VISION 2020: The Right to Sight – INDIA

VISION 2020 INDIA had a significant start to 2009, with the continuation of initiatives from the last quarter.

The VISION 2020 INDIA team and government officials from the Maharashtra State Health Society (SHS) met with the Brand Ambassador (Padmashri Smt. Hema Malini) and got her consent to participate in the World Sight Day-2009 (WSD-2009) celebrations, performing a ballet to raise resources for VISION 2020 INDIA.

The ED VISION 2020 INDIA provided faculty support to the ICARE/LVPEI Diploma in Community Eye Health (DCEH) Course.

A preliminary meeting for a collaborative venture with the Eye Banking Association of India (EBAI) was undertaken during the first quarter of the year.

All India Ophthalmological Conference, 2009: The VISION 2020 INDIA group participated actively in the AIOS conference this year. Besides having the XXI Board Meeting in Jaipur on 4th February 2009, the VISION 2020 INDIA team was there to be part of the AIOC 2009 with a two-hour session on VISION 2020 on the first day and a booth to disseminate information about VISION 2020 INDIA and its activities. Presentations made at the meeting covered topics such as: changing trends in global blindness, a model for quality equitable eye care, a model Vision Centre, quality comprehensive eye care, VISION 2020, the mission fast forward, Govt. of India initiative and how does one maximize the benefit, international NGO initiatives, how does the state VISION 2020 function, and why support VISION 2020.

A web-based MIS solution for NPCB was explored with a team visiting Mumbai to review the MIS used by the Maharashtra SHS. The new system planned would help NPCB monitor the program more effectively and efficiently.

The VISION 2020 INDIA group participated in the joint review of the Maharashtra state plan, and also visited members and other potential organizations as part of its efforts towards networking and creating partnerships.

While welcoming 3 new members to the VISION 2020 INDIA group, the fraternity has grown to 71 members.

Collaborative work in progress by VISION 2020 INDIA group:

- A proposal originating from EBAI and technically supported by VISION 2020 INDIA on “Strengthening Eye Banking in India” has been submitted to NPCB for consideration.
- Efforts are on to get the support of spiritual leaders to promote eye donation in India.
- A draft document on “Outbreak Policy” has been submitted to NPCB for consideration. It is currently under review by various stakeholders.

Two new team members have strengthened the VISION 2020 INDIA office and capacity building activities were undertaken in the quarter.

Future Plans

The economic recession has provided an opportunity to the VISION 2020 INDIA Team to re-visit its Strategic Plan and will consult its technical advisory team of 31 members from 26 organizations while updating and reviewing the plans for CY09 and 10.