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Comprehensive Planning of Human Resources for Eye Care to Meet the Goals of Vision 2020: The Right to Sight

*Report of an Intercountry Consultation,
WHO, SEARO, New Delhi
11-14 December 2001*

WHO Project: ICP CPC 003



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1. INTRODUCTION

An Intercountry Consultation on Comprehensive Planning of Human Resources for Eye Care to meet the goals of Vision 2020 The Right to Sight was convened at the South-East Asia Regional Office from 11 – 14 December 2001. Nineteen participants from nine countries of the Region and five representatives from nongovernmental organizations and members of the WHO Secretariat participated in the meeting. The list of the participants and the programme of the consultation are in Annex I and II respectively.

2. INAUGURAL SESSION

Dr Uton Muchtar Rafei, the Regional Director, WHO/SEARO inaugurated the meeting. In his opening remarks, he referred to the importance of the Vision 2020: The Right to Sight initiative to all the Member Countries as evidenced by the Regional Committee resolution, ICP OSD 002 /2000. He stressed the critical role of appropriately trained human resources at all levels in the Member Countries to help achieve the goals of Vision 2020. Human resources were recognized to be the costliest element in a health programme and the issues in their training, deployment, retention and utilization are complex. He emphasized the need to strengthen the mid-level personnel cadres in eye care delivery. Prevention of blindness activities was in different stages of development in the Member Countries and there was an opportunity for collaboration and technical cooperation among Member Countries in this regard.

3. HUMAN RESOURCES FOR EYE CARE

The objectives of the consultation were as follows:

- (1) To critically review the status of the eye health workers in the Region with regard to number, mix and distribution;
- (2) To identify critical areas of deficiency and outline major areas for reform in educational policies, and

- (3) To provide guidelines for developing comprehensive Human Resources for Health (HRH) plans for eye care, with special attention to mid level and primary eye care personnel.

The expected outcome was a guideline for comprehensive planning of human resources for eye care for Vision 2020 – The Right to Sight, sensitive to the needs of the population.

Dr Anand Kannan (India) and Dr Watanee Jenchitr (Thailand) were nominated Chairperson and Vice-chairperson respectively. Professor Shashank Koirala and Dr Sk Md Aminul Islam were nominated rapporteurs.

A summary of country presentations is given at Annex III

3.1 Global Perspective on Human Resources in the Context of Vision 2020

Dr R Pararajasegaram, WHO/HQ Geneva said that appropriately and adequately trained people can be the greatest asset of any programme. Before embarking upon some predetermined formula of doctor or mid level personnel to population ratio, the efficient utilization of existing personnel should be considered.

Comprehensive human resource planning should be based on the cardinal principles of provision of eye care as an integral part of the health care system at all levels and particularly at the community level.

The mid -level eye care personnel served as a critical link between the primary and secondary/tertiary levels. Unfortunately policy matters, professional commitment among ophthalmologists, training and certification provisions and acceptable career structures are not in place in the Region at the moment.

Medical graduates handling primary care make up significant proportions of eye care provided to the population. They ought to be provided with short courses in basic eye care after their graduation in addition to appropriate training on Vision care during their undergraduate education.

Maldistribution of human resources is a critical issue. National averages may distort the true situation. Disaggregated data from district level are therefore essential for planning more equitable distribution.

Dr R Pararajasegaram, further stressed the need for careful participatory planning specially between medical education and medical services, appropriate training with relevant content, methods and proper evaluation and good management for human resource development. He further reiterated that establishment of a sustainable and comprehensive global eye care system and importance social equity in access together with affordable quality were of utmost interest.

3.2 Regional Perspective on Human Resources in the Context of Vision 2020.

Highlighting the critical importance of human resources, Dr Madan P. Upadhyay, Regional Adviser, Disability, Injury Prevention and Rehabilitation WHO/SEARO, New Delhi, said that any health system is only as good as the personnel working in it, for they are the ones to make or break the system.

His presentation covered the current status of ophthalmic manpower in the South-East Asia Region, issues and concerns as well as quantitative and qualitative aspects of human resources for health. The critical issues in eye-care workforce are inadequate numbers, inappropriate mix of category and skill, inequitable distribution and low productivity across the Region.

The currently available 12,000 ophthalmologists compared to only about 6,000 mid-level professionals is grossly inadequate and unacceptable. There is uniform shortage of all cadres of eye care personnel. To meet the targets for development of Vision 2020, the countries will have to make a quantum jump.

There is lack of policy; training and employment opportunities for mid-level eye care personnel. Most of the population in the Region (80%) reside in rural areas, while most of the ophthalmic human resources (80%) are located in urban areas, creating an 80:20 imbalance.

3.3 Primary Eye Care Personnel

The basic strategy to achieve the Vision 2020 goals is through the integration of primary eye care into primary health care. In countries where primary health care development is strong and functional, eye care programmes have achieved success. A series of personnel were itemized as potential primary eye care providers in the different countries and their roles and tasks clarified.

Personnel providing primary eye care vary a great deal between the countries. In some countries, particularly the developed ones, physicians provide primary eye care. However, in the Region, non-physician workforce constitutes the bulk of primary eye care providers.

One appropriately trained primary eye care provider may be able to cater to a population of 5,000. However, the number would vary depending on disease burden, workload, terrain and population density. Primary eye care workers need to be adequately supported with essential item of supplies and supervision.

Some, all or a combination of the following could serve as primary eye care providers. Their proposed category and expected job responsibility is shown in the table below:

Role clarification for primary eye care personnel

Unskilled Workers Volunteers	Eye health promotion and eye screening Blind Register in villages
Community Health Workers	Identify nutritional disorders Cataract, red eye Identify blind persons in the community Provide eye health education Ensure treatment has been taken
Technicians	Identify common External diseases, cataract, treat red eye, remove foreign bodies, provide emergency care, post operative follow-up, refraction, prescription of glasses.

In addition to the above, the following categories of primary eye care workers were reported to exist in different countries: motivators, social workers; teachers, druggists/chemists; traditional healers; link workers and volunteers.

3.4 Mid Level Eye Care Personnel

Dr Raj Kumar, Principal Investigator of an Inter-country WHO funded, multi-country assessment of current status of education, training and deployment of

mid-level eye care personnel in the Region, presented the findings of the study. The methodology included questionnaires and selective interviews/focus group discussions. The emerging generic issues included multiple categories creating confusion about roles, lack of uniformity of training, deployment and utilization, lack of planning and policies and lack of infrastructure and funding to augment production. Reviewing existing models in the Region and beyond, educational models like three-year degree course in ophthalmic sciences, one-year course in ophthalmic assistant were suggested. Entry criteria, course contents, training methodology and evaluation of these programmes were further elaborated. Formation of a task force for advocacy, role clarification / job description and planning workshop to iron out critical issues related to this level of eye care personnel were recommended as an important step to take this issue further.

4. OPHTHALMIC MEDICAL EDUCATION

4.1 Undergraduate Ophthalmic Medical Education

A study on the status of ophthalmic medical education in the South-East Asia Region of WHO was commissioned by the Regional Office to assess the current status of ophthalmic medical education in the Region. Presenting the findings of this study, Dr G.V.S Murthy said that undergraduate medical courses in the Region were relatively uniform in terms of duration of the undergraduate medical course and clinical curricula. However, student-faculty ratios were found to vary significantly across the Region. Most colleges had adverse faculty: student ratios for undergraduate courses. In 70% of the colleges there was one teaching faculty for 10 students, while in little over 20%, there was only one faculty for 20 students.

The number of lectures scheduled in ophthalmology as well as clinical posting in ophthalmology was reported to be inadequate in most of countries of the Region. Deficiencies existed in exposure to diagnostic and surgical methods and community eye care as well as in under-emphasis on common local eye conditions.

In nearly a third of the responding medical institutions, there was no separate examination in ophthalmology at the undergraduate level. This was usually clubbed with general surgery.

There was no uniformity in the examination pattern with most institutions examining students at the end of the final clinical year, while some conducted examinations in the second clinical year or six months before the final clinical examination. There was no uniformity in the pattern of internal assessment of undergraduate students in ophthalmology. In more than half the responding institutions no specific curricula or teaching hours were designated for community ophthalmology. Although most institutions felt that there was a need for augmenting skills in community eye care, in practice, this was observed to be a neglected area. The lack of adequate clinical, diagnostic and surgical exposure, less emphasis on community orientation, poor quality teaching material, faulty examination and assessment systems and adverse faculty student ratios were the major deficiencies highlighted by the responding colleges in the Region.

In Bangladesh, DPR Korea and Indonesia, heads of institutions stated that ophthalmology was not perceived to be a popular choice for specialization by the medical students.

4.2 Postgraduate Ophthalmic Medical Education

Dr P C Karmacharya, STC/DPR, SEARO, made a presentation on ophthalmic manpower training in the South-East Asia Region with a view to link ophthalmic manpower training to Vision 2020: The Right to Sight. Reviewing the historical perspectives and current scenario in the Region, he stressed the need to be aware of the pressure for change. Ophthalmic manpower training has to be reviewed against increasing public health knowledge as also public expectations.

Of late, the capacity to treat illness has dramatically increased. On the other hand, costs of care are moving beyond government or private paying capacity. In the context of the changed role of ophthalmologists, their training has to address several issues like leadership, management, performance and cost containment. Addressing the issues of quantity, he said that against 12000 ophthalmologists currently available, 40000 were needed in the year 2020. He also highlighted issues related to quality and distribution and diploma versus degree programme.

Presenting the situation analysis of ophthalmic postgraduate medical education in South-East Asia, Dr G.V.S. Murthy covered the salient features of the study undertaken in five countries – Bangladesh, Indonesia, Nepal,

Sri Lanka and Thailand. There was wide variation both within and between the countries in relation to the duration, content, training methodology and evaluation of postgraduate training. Surgical exposure during postgraduate training in the Region seemed to be limited largely to cataract surgery (both with and without intraocular lenses). Exposure to other surgical procedures seemed to be limited. Exposure to diagnostic procedures like electroretinography/electrooculography, ultrasonography, fluorescein angiography and automated perimetry and to community ophthalmology was grossly inadequate. 'Hands on experience' in relation to low Vision prescriptions too were inadequate.

Poorly trained faculty, paucity of teaching faculty in some countries, poor training infrastructure, lack of instruments, lack of proper curricula, lack of clinical, surgical material and poor teacher student interaction were cited as important reasons for inadequate training during post graduate period.

The strengths and weaknesses of the eye care delivery system in the Region were highlighted. The issues varied significantly between the countries.

Centralized academic control of medical education, improved training infrastructure, augmented referral network, financial commitment for blindness control activities, both from the government as well as the NGOs, reorientation of primary care physicians and increased emphasis on primary care and community ophthalmology in graduate and postgraduate education were considered as important remedial measures in improving medical education and eye care service delivery in the Region.

4.3 Continuing Professional Development for Human Resources for Eye

There were two presentations on this subject.

(1) *Continuing Professional Development of Health Personnel:*
Dr P.T. Jaywickramarajah, Regional Adviser for Human Resources for Health, WHO/SEARO.

Dr P.T. Jayawickramrajah, clarified that unlike advanced professional development by acquiring degrees or diplomas, continuing education is a part of lifelong learning that begins just after formal education ends. Continuing education consists of planned learning experiences organized in a logical manner, which build on previously learned knowledge, skills and attitude.

Continuing professional development is a process by which health professionals keep updated to meet the needs of the patients, the health service and their own professional advancement.

Continuing education has also come to include managerial, social and professional skills – topics beyond traditional clinical medical subjects in a multidisciplinary context of patient care. Institutes, professional societies, and specialty boards have been providing continuing education by methods of external and internal activities.

Methods of imparting continuing education, by external activities may be in the form of training courses, distance education, academic seminars, telephone conference, scientific meetings, video presentation conferences, audio presentation or telemedicine. Similarly, internal activities entails practice based learning, case conferences, grand ward round, peer consultation and review of articles at journal clubs. Enduring materials as method of continuing education include print media, CD-ROM and web-based materials.

Certification and revalidation are important in this process, as is clinical audit. Continuing education should be based on needs assessment, educational planning and programme evaluation.

Continuing education should be integrated with continuing professional development. At this moment this is a seemingly disorganized enterprise in the Region. Long-term plans like Vision 2020 should explore and utilize its potentiality while planning human resources for eye care.

(2) Distance learning and its relevance

Distance education is a modified way of institutional education wherein it is not essential for the teacher and the learner to be in face-to-face contact all the time. Distance education has now become established as an educational strategy.

Dr Raj Kumar discussed the importance of applying distance learning in the eye care sector with a shift in the focus from teacher to learner-based, basic sciences to applied sciences and from classroom attendance to achieving competence. However, the downside of distance education is that it entails limited clinical / technical exposure with no hands-on experience and little faculty – student interaction. Distance education programmes are

offered by schools / institutions, universities in the Region (B Sc Ophthalmic Techniques in India) as well as in other Regions. The prevailing weak licensing system, absence of accreditation system and variations across institutions, its limitations and related issues should be considered in future planning. In eye care setting, distance education is a powerful alternative strategy for training different cadres of eye health personnel. The potential of this method should be explored and linked to achieving the goals of Vision 2020: The right to sight.

4.4 Guidelines for Comprehensive Planning on Human Resources for Eye Care

Dr P.C. Karmacharya presented an overview of the guidelines for comprehensive planning of human resources for eye care and emphasized the importance of human resources not only as precious and expensive commodity, but also a vital element to attain the social objectives of Vision 2020: The Right to Sight.

Human resources planning consists of determining how best to produce, deploy and use manpower in the right numbers with the right skills to perform health service functions.

Although a cyclical process, across all jurisdictions and for covering all levels of planning, a general scheme of five Ps: Policy, Planning, Programme, Process, Product is often used as a guide.

Policy being a statement of intent or direction that provides guidance for actions and decisions has to be reviewed before embarking on planning. Gray areas in policy like vacuum or absence, inadequacy in formulation or implementation not leading to intended goal have to be resolved before detailed planning begins.

Human resource planning should be an integral part of health planning and human resource planning for eye care, in turn, and part of human resource planning for health care.

Planning has to be participatory in nature with an amalgam of key players like high officials from different ministries of planning, health, education, finance and universities/institutes, professional organizations and nongovernmental organizations as well as the private sector.

Variables like health care status with need and demand, labour market trends, demographic/epidemiological changes, socio-economic development, technical advances and fiscal capacity should be critically considered for human resource planning.

Although several methods of estimation of categories of human resource are available, no single method can be used as a yardstick. Rather than extrapolating the numbers, each country has to train its eye work force as per its need and capability. Besides the number, human resource planning has to address the issues of appropriate mix of skills, geographical coverage, relevance of the training programmes, integration of production and deployment as well as cost containment.

Planning being an ongoing process of multiple stages has to consider formulation, implementation, monitoring, adjusting and reformulating as a rolling document. The seven steps to successful planning of human resources viz., situation analysis, future requirements, mismatches, solving mismatches, strategies, organization and management, implementation and monitoring were outlined. The steps however, do not necessarily need to be sequential and can often be simultaneous. Countries should develop their plans to suit their needs and circumstances as per their capacities.

5. CONCLUSIONS AND RECOMMENDATIONS

The participants noted with appreciation the commitment and support of the Regional Office to the development of Vision 2020 in the Region. They recognized WHO's immense contribution to human resource development in general, in the Member Countries and its continued assistance to human resource development for eye care was welcomed.

The current efforts by Regional Office to carry out situation analysis of existing human resources and training programmes in Member Countries to establish the evidence base for the same were appreciated.

Based on the plenary and group work discussions, resulting from the terms of reference, the following recommendations were made to comprehensively plan human resources for eye care to meet the goals of Vision 2020: The Right to Sight.

5.1. For Member Countries

General

- (1) General situational analysis should be carried out as a prelude to the preparation of national Vision 2020 action plans.
- (2) Studies on economic cost and impact should be undertaken, as necessary in Member Countries.
- (3) All educational programmes at basic, mid and higher levels should be comparable and equivalent in Member Countries, have documented curricula with objectives, teaching learning experience and competency assessment methods.
- (4) Planning for human resource for Vision 2020 should be done within the overall context of Human Resource for Health planning in the country.
- (5) The optimal utilization of existing personnel could in itself improve the productivity in several components of Vision 2020. The determination of the appropriate mix of personnel and the need for the development of a culture of teamwork is necessary.
- (6) Since the misdistribution of personnel and infrastructure was responsible for significant inequity in the availability and quality of services in the rural areas in most countries, training programmes should consider the need for the provision of the basic infrastructure to trained personnel deployed to these areas.

Primary eye care

- (1) Strengthen the primary eye care personnel through need based training, using the most appropriate methods.
- (2) The training and development of selected personnel be enhanced and supported to improve access and provide quality primary care, including referral to underserved populations,
- (3) Opportunities for sharing experiences should be availed and supported.

Mid level eye care personnel

- (1) Top priority should be accorded to the training and/or re-training of mid-level eye care personnel, of whom there was an acute shortage.

- (2) National policy on training, deployment and utilization of such personnel should be formulated.
- (3) Allied eye health personnel, could be considered a generic title for this category of workers. Within this generic group, an attempt should be made to merge closely related categories so as to limit the number of different categories, depending upon country-specific needs.
- (4) Efforts should be made to design training programmes and create opportunities that will provide avenues for career advancement, professional and academic development.

Undergraduate ophthalmic medical education

- (1) Having reviewed existing training methods and curricula, there was a consensus on the need for reorientation of the curricula to make them student centred and relevant to local needs.
- (2) A duration of ophthalmic posting consistent with the achievement of predetermined objectives should be allotted during undergraduate training and students should also be provided with learning opportunities in different settings to achieve the learning objectives.
- (3) There should be a compulsory separate examination in Ophthalmology.
- (4) The required strengthening of infrastructure and of the faculty should include the creation of a teaching department of ophthalmology with dedicated faculty members.
- (5) The concerned medical councils or analogous bodies should consider mandating under graduate teaching institutions, both in the governmental and nongovernmental and the private sector to implement these recommendations.

Post Graduate ophthalmic education

- (1) While there exists undeniable need to increase the number of ophthalmologists to meet the targets of Vision 2020, all efforts should be undertaken to fully utilize currently available but under-utilised human resources and existing infrastructure, before setting up new training programmes or significantly increasing the intake of new trainees.
- (2) There is need to further improve the technical competencies of ophthalmologist in areas such as communication skills, attitudes for life

long learning, management and leadership skills. Public health ophthalmology should be an essential component of clinical ophthalmology teaching and should be taught in an integral manner, rather than in isolation. Training sites should be as varied as possible including community settings, to provide useful learning experiences.

- (3) Attention should be paid to subspecialty training in areas of emerging causes of blindness such as, diabetic retinopathy, glaucoma, and childhood blindness.

Training centres

- (1) There are several potential centres in most countries to undertake training of the various cadres of personnel. Some of these centres would need strengthening in terms of faculty and infrastructure. Countries in the Region should identify such centres, and seek assistance as necessary to make them more productive. In the case of smaller countries, recourse should be had for training within the Region.
- (2) Some centres in larger neighbouring countries should be designated as Regional Training Centres particularly for training of trainers. In this regard WHO may be requested to provide support to bring out a Resource Directory.

Continuing professional development

- (1) All avenues for continuing professional development and continuing education for all categories of eye care personnel should be explored and utilized.
- (2) Continuing professional development and continuing education was fragmented and poorly developed in most countries. Recent trends in reorienting traditional Continuing Medical Education (CME) should be adopted.
- (3) The feasibility of periodic assessment of professional competence, based on criteria to be developed, should be explored, National professional organizations in ophthalmology should be encouraged to pursue this with national regulatory bodies as appropriate, towards this and accreditation of country professional development programmes may be considered.

Distance education

Recent developments in communication technology have the potential for the development of distance learning opportunities. These should be explored for continuing education and the application of 'Tele-Ophthalmology' in most countries is foreseeable in the future, if not immediately.

5.2 For WHO

- (1) WHO should encourage and support the development/ strengthening of potential/centres engaged in training of various cadres of eye care personnel
- (2) WHO should facilitate and support networking of such HRH training institutions among the Member Countries within and outside the Region for sharing information, resources and expertise.
- (3) The process of determination of equivalence of degrees and diplomas of comparable educational programmes within the Region must be coordinated to promote human resources development for eye care.
- (4) In the present context of poorly defined training of mid level eye care personnel, WHO should constitute a working group, if necessary through the Regional Coordination Group, to review existing policies, curricula and training manuals. It is essential that areas such as Refraction and low Vision care, besides other identified priority areas, are included in training courses for these personnel.
- (5) WHO should provide support for the development of a Regional Resource Directory.

Annex 1

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Annex 2 PROGRAMME

Tuesday, 11 December 2001

- 0900 – 1000 hrs – Registration
- 1000 – 1030 hrs – Inaugural Session

PLENARY SESSION I

- 1030 – 1300 hrs – Global Perspective of Human Resources in the Context of Vision 2020- Dr Pararajasegaram, WHO, HQ, Geneva
- Regional Perspective on Human Resources in the Context of Vision 2020- Dr Madan Upadhyay, RA -SEARO, New Delhi

Primary Eye Care Personnel

Primary eye care and its providers in highly populated countries:

- Bangladesh Experience – Primary Eye Care for combating Nutritional Blindness
- India Experience – Training of Primary Eye Care Workers
- Indonesia Experience – Primary Eye Care for combating Nutritional Blindness

Primary eye care and its providers in moderately populated countries:

- Myanmar Experience – Controlling Trachoma through Primary Eye Care
- Nepal Experience – Training of Primary Eye Care Personnel
- Thailand Experience – Primary Eye Care: A Sustainable Model
- Sri Lanka Experience: Primary Eye Care
- DPR Korea Experience – Primary Eye Care in DPR Korea

Primary Eye Care and its providers in countries with small and scattered population:

- Bhutan Experience – Training and deployment of Human Resources
- Maldives Experience – Training and deployment of Human Resources

Discussion

1400-1700 hrs

- Human Resource Requirements for Primary Eye Care
- Role Clarification, Job Description and guidelines for core curriculum for primary Eye Care staff (including norms and standards)
- Logistics for Training (including identification of training institutions, infrastructure requirements and intercountry/intracountry fellowships etc.)
- Presentation of Group Reports and Discussions

Wednesday, 12 December 2001

PLENARY SESSION II

0830 – 0930 hrs

- Undergraduate Ophthalmic Medical Education: Its role in meeting the goals of Vision 2020: The Right to Sight
- Current status of undergraduate Ophthalmic Medical Education in South-East Asia Region: Dr G V S Murthy

GROUP WORK

0930 – 1215 hrs

- Role clarifications and job description of general practitioners for Vision 2020
- Reorientation of undergraduate medical education to meet the goals of Vision 2020: The Right to Sight
- Logistics for Training (including identification of training institutions, infrastructure requirements and intercountry/intracountry fellowships etc.)
- Presentation of Group Reports and Discussions

PLENARY SESSION III

- 1300 – 1400 hrs
- Post Graduate Ophthalmic Medical Education
 - The role of ophthalmologists in meeting the goals of Vision 2020: The Right to Sight
 - Ophthalmic manpower training in SEAR: Dr Karmacharya
 - Post Graduate Ophthalmology in SEAR: Dr G V S Murthy

Discussion

- 1400 –1700 hrs
- Human Resource Requirements in the Region ; Curriculum reform to meet the goals of Vision 2020: The Right to Sight (including discussion on weaknesses and strengths)
 - Logistics for Training (including identification of training institutions, infrastructure requirements and intercountry/intracountry fellowships etc.)
 - Presentation of Group Reports and Discussions

PLENARY SESSION IV

Thursday, 13 December 2001

- 0830–1215 hrs
- Mid Level Eye Care Personnel
 - Situational Analysis of Mid level Personnel in South-East Asia :
Dr Rajkumar

Discussions

- Human Resource Requirement in the Region: Category, Number and Distribution
- Role clarification, description and guidelines for a core curriculum including community eye care
- Logistics for Training (including identification of training institutions, infrastructure requirements and intercountry/intracountry fellowships etc.)
- Presentation of Group Reports and Discussions

PLENARY SESSION V

- 1300 – 1400 hrs
- Continuing Professional Development for Human Resources for Eye Care to Meet the Goals of Vision 2020: The Right to Sight
 - Distance learning and its relevance to Eye Care: Dr Raj Kumar

Discussion

- 1400 – 1700 hrs
- Continuing Professional Development for Primary Eye Care Personnel
- Continuing Professional Development for Mid level Eye Care Personnel
 - Continuing Professional Development for Ophthalmologist
 - Presentation of Group Reports and Discussions

Friday, 14 December 2001

- 0830 – 0900 hrs
- Guidelines for Comprehensive planning of Human Resources for Vision 2020: The Right to Sight: Dr P. C. Karmacharya

PLENARY SESSION VI

- 0900 – 1300 hrs
- Discussions**

- Planning of Primary Eye Care Personnel
- Planning of Mid Level Eye Care Personnel
- Planning of Ophthalmologists
- Presentation of Group Reports and Discussions
- Finalization of Guidelines for Comprehensive planning for Human Resources for Vision 2020: The Right to Sight and Recommendations

- 1300 – 1330 hrs
- Concluding Session**

Annex 3

SUMMARY OF COUNTRY PRESENTATIONS

Bangladesh

- Bangladesh with 1% prevalence of blindness, has cataract (84%), age-related macular degeneration (3.4%) and *Phthisis bulbi* including Vitamin A deficiency (2.9%) as the main causes of blindness.
- Primary eye care is provided by community workers at the grass root level, mid-level personnel like ophthalmic nurse and other para-professionals and medical officers (general physicians).
- Primary health care personnel are trained in primary eye care function to identify, manage, refer and record- keeping.
- These basic workers also carry out preventive, promotional and counseling functions. Training programmes for different cadres of eye care personnel at various levels have been developed.

Indonesia

- Indonesia with 1.47% prevalence of blindness has cataract (52%), glaucoma (13.4%) and refractive error (9.5%) as main causes of blindness.
- Primary eye care is provided by midwives, nurses and general practitioners. Nurses below the age of 40 years with six months of work experience are trained for 21 days or 174 hours. The course consists of 72 hours of theory and 100 hours of practice and evaluation of two hours. Upon completion of the training they are posted again at the same Primary Health Centre known as Puskesmas or Community Eye Care Institution (CECI).
- General practitioners working in PHC/CECI are trained for 14 days or 102 hours. The course consists of theory and practice each of 50 hours and evaluated for two hours. They go back and serve for two years. There are 650 ophthalmologists for the entire country with a population of over 210 million, one fourth of the ophthalmologists reside in Jakarta. The ratio of

ophthalmologist to population is 1:350000; that of nurse is 1:25000 and Refractionist 1:150000.

- The country has limited number of ophthalmic manpower at all levels with unequal distribution. Eye care programme has been accorded low priority and there is lack of strong political commitment.

Maldives

- The Faculty of Health Sciences is entrusted with the responsibility of production of human resources for health for the entire country. At the island and atoll level, primary health care personnel are providing primary eye care. In view of the services they are rendering, this cadre needs short-term exposure in primary eye care.
- Eye care in Maldives is rendered by a handful of personnel viz one ophthalmologist, one ophthalmic assistant and five nurses briefly trained in ophthalmology.
- Maldives also enjoys the service of two expatriate ophthalmologists. Currently three nationals are undergoing postgraduate training. In general, there is shortage of all cadres of ophthalmic personnel.

Myanmar

- Myanmar with 0.9% prevalence of blindness has cataract (63%) glaucoma (16%), posterior segment diseases (7%) and trachoma 4% (in 1964 it was 40%) as the major causes of blindness.
- Basic health workers including nurses and volunteers are trained in primary eye care. Trainers of primary eye care, general practitioners and other cadres of health personnel are also trained by ophthalmic health assistants or ophthalmologists depending on the level of trainees. The course contents consist of epidemiology of blindness, basic anatomy and physiology, ocular examination with diagnosis and management of both acute and chronic conditions, community exposure and evaluation.
- Primary eye care in Myanmar is provided through primary health care approach by the community. It is intended to man each village (village of about 2,000 people) with one trained primary eye care worker to provide eye care services at the periphery.

- The substantial reduction of prevalence of trachoma from 64% in 1964 to 4% is a success story. However, Myanmar too has shortage of ophthalmic manpower at all levels of eye care and more so in rural areas.

Nepal

- Nepal with 0.8% of prevalence of blindness has cataract (70%), trachoma (2.4%) and xerophthalmia (1%) as the main causes of blindness. Primary eye care is provided through integrated primary health care. There is provision for training of basic health workers in primary eye care at eye hospitals spread throughout the country.
- Nepal offers two mid level ophthalmic manpower training programmes viz ophthalmic assistant under the aegis of Council for Technical Education and Vocational Training (CTEVT) and Bachelor in Optometry under Institute of Medicine, Tribhuvan University. The ophthalmic assistant programme after 10 years of schooling is of 3.25 years duration. They assist in outdoor, indoor, surgery, refraction, pharmacy and perform minor procedures such as entropion correction independently. They are also engaged in community eye care activities like screening, eye health education and patient counseling.
- Bachelor of optometry programme is of three years of duration after 12 years of schooling. Optics, refraction, contact lens, basic sciences including ocular microbiology and pathology, epidemiology, examination and management of common eye conditions constitute the core curriculum. This ophthalmic workforce is geared to play a critical and synergistic role in providing eye care services, to particularly address the need for refractive services.

Sri Lanka

- This country has a national plan for prevention and control of blindness now in operation for over a decade built into the existing health care system. Primary health care workers are trained to treat common eye conditions and prevention of eye diseases. Identification of eye emergencies and referral is well incorporated into primary health care services. Therefore, instead of envisaging a separate cadre, the existing primary health care personnel go through in-service training programme to provide eye care. This sort of training is conducted at a local level with involvement of medical officers, epidemiologist and health educators.

Further, these trainers are trained at provincial or district level eye units by an ophthalmic team. Separate curricula for different levels of training exist. In the context of Vision 2020: The Right to Sight, these curricula are going to be revised.

- Despite limited number of ophthalmologists (47) and ophthalmic technologists (80), the prevalence of blindness of 0.5% is attributable to strong primary health care and its providers.

Thailand

- Thailand with 0.31% of prevalence of blindness is in a unique position as compared to the rest of the members in the Region. The National Programme for Prevention of Blindness was launched in 1978 with focus on primary health care. Key strategies like development of human resources at mid-level, training of ophthalmic nurses and tertiary level ophthalmologist in the ratio of 2:1, strengthening of eye care services at primary level, development of ophthalmic training centres and linking of primary eye care with primary health care has resulted in reduction of prevalence of blindness from 1.14% to the current figure of 0.31%.
- Thailand has a strong in-built national network of services as well as ophthalmic training programmes for health workers, including village health volunteers, public health nurse, ophthalmic nurses and medical officers.