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**TRAINING AND EDUCATIONAL MATERIALS
FOR BLINDNESS PREVENTION**

REPORT OF A WORKSHOP

CONVENED AND HOSTED BY THE

INTERNATIONAL CENTRE FOR EYE HEALTH

LONDON, UNITED KINGDOM

7-9 JULY 1993

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INTRODUCTION

This Workshop, co-sponsored by the World Health Organization, was held from 7 to 9 July 1993 at the Institute of Ophthalmology, Moorfields Eye Hospital, London. The Workshop was financially supported by the Consultative Group of Nongovernmental Organizations to the WHO Programme for the Prevention of Blindness and by the International Centre for Eye Health.

The purpose of the Workshop was:

- to evaluate existing training and educational material for eye health;
- to identify further materials required;
- to identify resources for the production of such material.

There were 21 participants, representing a number of nongovernmental organizations, government agencies, WHO and the host Institute. The list of participants is contained in Annex 1.

Professor Gordon Johnson was elected to chair the meeting and Mr Chad MacArthur and Dr R. Pararajasegaram were elected Rapporteurs.

The agenda (Annex 2) was adopted without modification.

EVALUATION OF EXISTING MATERIAL

Each participant listed and discussed materials presently available or under production by his/her respective organization. These are listed in Annex 3.

It was apparent during the discussions that some of these materials had a more local application, while others had been translated into one or more languages. Some materials, especially for community education, would lend themselves to adaptation to meet the needs of various cultures.

In the context of community education material, the need was expressed for training modules on "how to produce your own material". Some of this material was already available in other health and health-related disciplines and could be adapted for the needs of eye health programmes.

The group noted that a considerable amount of material existed in countries that was perhaps more culture-specific and addressing special needs. It would, however, be useful to collect as much of this material as possible.

Little in the way of formal evaluation of much of the training material presently available had been carried out after the material had been in use. However, field-testing of material under preparation had been carried out at various stages, and modifications and refinements instituted as indicated.

The participants worked in three groups to identify educational materials required.

Group A: Community level

The task for the members of Group A was to discuss and evaluate available eye care materials for training and education at the primary level of the health system and to make recommendations as to what still needs to be developed.

The Group felt strongly that, before any material was developed, existing material should be reviewed, used and/or adapted to meet identified needs.

It became immediately obvious in the course of the discussion that it is difficult to develop generic material for the community level, as communities vary greatly. It was felt that perhaps a more appropriate approach would be to give communities the tools to develop their own materials. It was suggested that a manual be developed, if one does not already exist, that would assist people in developing their own materials.

Educational materials at the community level should also focus on the root problems of eye disease such as poor sanitation, lack of clean water, etc., and be integrated into the whole spectrum of primary health care concerns. It was suggested that several books with eye care sections, such as "Where There is No Doctor", should be reviewed, and revisions suggested to the author to strengthen the eye care component.

The Group felt that educational materials also need to address the barriers that keep people from seeking eye care services. Obviously, before materials can address these issues, they must first be identified through research.

It was also noted that most educational materials are text-based and thus biased towards literate populations. The Group agreed that more non-text materials are needed.

Two problems encountered by the Group were (1) that a community is a complex system that resists categorization, and (2) the cadres of health workers serving communities are varied in skills and experience. There is a wide range of primary-level workers, from village workers to traditional birth attendants (TBAs), from rural midwives to community nurses, all with different roles and responsibilities that make difficult the development of training materials for them.

The need for more emphasis on training trainers was raised, but it was pointed out that there are several good manuals currently available that can be either used or adapted.

Another issue discussed was the development of materials for communities without existing services and programmes to back them up. Should we be educating communities about cataract blindness, for example, if there are no services to treat the cataract-blind? On the other hand, it was argued that public awareness was often the first step in making services available.

It was suggested that eye care educational materials contain sections on working with people with low vision, as well as with the incurably blind.

Group B: Secondary level

Group B discussed educational materials for eye health workers at the secondary level - the mid-level worker or ophthalmic assistant. Recognized terms or designations include the following:

Mid-level eye worker ("non-physician") *or* Ophthalmic assistant

Nurse
 Technician
 Assistant medical officer
 Ophthalmic clinical officer
 Auxiliary

Further discussion centred on job descriptions and responsibilities in different regions of the world and on which educational materials are available for individual students and also for eye training centres.

Job description (for different regions of the world)

	<i>Africa</i>	<i>Asia</i>	<i>Latin America</i>
Health promotion	yes	yes	yes
Screening of eye diseases	yes	yes	yes
Assist ophthalmologist in clinic	yes	yes	yes
Assist ophthalmologist at surgery	yes	possibly	possibly
Independent clinic for diagnosis and treatment	yes	possibly	unlikely

Educational packet for the individual student

	<i>Availability</i>
<u>Books</u>	
Sandford Smith or Schwab	yes
Hanyane	yes
Surgical text	being prepared
<u>Manuals</u>	
Cataract - WHO	yes
Childhood blindness - WHO	yes
Xerophthalmia - WHO	yes
Ophthalmia neonatorum - WHO	yes
Trachoma - WHO	yes
Onchocerciasis - Pond	yes (not Asia)
Lecture notes on eye diseases	available in some regions/languages
Module on management	no
Module on communication skills	no
Updates (<i>Community Eye Health Bulletin</i> reviews)	no

Cost approximately US\$ 80

Educational packet for an ophthalmic training centre

	<i>Availability</i>
<u>Slide Sets</u>	
Examination of the eyes - ICEH	yes
The eye in primary health care - ICEH	yes
Cataract - ICEH	yes
Childhood blindness - ICEH	yes
Onchocerciasis - ICEH	yes
Trachoma - ICEH	being prepared (MM)
Primary eye care - WHO	yes
Glaucoma	being prepared (MM)
HIV/AIDS and the eye	being prepared (PK)
Low vision and rehabilitation	being prepared (AY)
Operative care	no
Suppurative keratitis	no
Leprosy	no
<u>Videos</u>	
Cataract/upper lid entropion/trabeculectomy	yes
Chalazion/evisceration/tarsorrhaphy	no
Sterilization	no
Clinical skills	no

Cost approximately US\$ 500

Group C: Tertiary level

The Group recognized that the following personnel were functioning or being trained at the tertiary level of the eye health delivery system:

- Ophthalmologists
- Health administrators
- Personnel training to provide service at secondary levels of the system, e.g. ophthalmic assistants, nurses, clinical officers, etc.

The tasks and functions of these personnel would, however, vary to some extent depending on the levels at which they worked. Levels of independent responsibility would also be different.

Broadly speaking, two areas of knowledge and skills need to be imparted:

- Technical skills
- Management skills

Technical skills refer primarily to the actual performance of eye-health-related tasks. This would be mainly training for ophthalmologists, ophthalmic clinical officers, ophthalmic assistants, nurses, etc. However, health administrators having responsibility for managing the programme at national, regional or state level should have some basic training in the problem of blindness, interventions for its control, monitoring and evaluation.

On the other hand, ophthalmic professionals in managerial positions need to be trained in the principles of management, including planning, implementation, monitoring, evaluation, operations research, etc. The Group identified an urgent need for training modules or manuals to meet this requirement. These could include written material, video presentations, case studies, etc.

The Group also recognized that a number of personnel at this level would be actually involved in training other cadres and trainers. It was thought imperative that those in training positions should become exposed to educational technologies so as to acquire skills in teaching/training. Manuals on such skill development are available and could be adapted for use in eye health programmes.

DISTANCE LEARNING

A presentation on the development of distance learning by The Open University, UK, covered relevant aspects of this modality. A pack/case of distance learning materials including books, manuals and videos was demonstrated.

Several aspects of the study course could be adapted for use in eye health training programmes. An appropriate and adequate infrastructure would be required in a country to facilitate distance learning. With the rapid strides that are being taken in communication technology in developing countries, distance learning holds out a promise for more extensive use in eye health care training, including continuing education.

INTERACTIVE Training PROGRAMMES

Computer-based training, compact discs, CDROM

A presentation described the Tropical Disease Videodisc Project of the Wellcome Trust, UK.

These newer technologies, though still not fully available in developing countries, facilitate the recording and dissemination of learning/training materials in developed countries. Current, ongoing courses in community eye health and public health ophthalmology, other allied courses and audiovisual material could be recorded and disseminated using such technology. A repository of such material could be a resource for developing countries when the technology becomes available and affordable.

The development of learning tools and programmes with the recent computer-based multimedia options could be utilized. Computer-based training with the element of "interactivity" can be made available, where appropriate, to the "distant" student. Distance learning and computer-based training should combine the various media available to develop the most appropriate training strategy, either in a given situation or for general requirements.

CONCLUSIONS AND RECOMMENDATIONS

Identification of materials required and recommendations for action

The delivery of eye care as an integral part of primary health care is generally organized at three levels of the health delivery system - primary, secondary and tertiary.

Delivery of eye care involves many different cadres of health workers. In this workshop, the availability and needs of educational materials were discussed for three levels of personnel:

- (a) Community health worker
- (b) Ophthalmic assistant/nurse
- (c) Eye surgeon

Interfacing with the community health worker is the community, comprised of a range of target population groups categorized on a demographic, socioeconomic, educational or eye health status basis. Each of these has specific requirements in health learning and educational material.

In discussing educational and training materials, particularly at the community level, the following general points were made:

- The existing materials do not adequately take into account the underlying problems (such as poor sanitation, lack of access to clean water, etc.) that may lead to eye disease and preventable forms of blindness, nor do they address the barriers that prevent people from seeking eye health services.
- Communities are diverse entities with their own languages, culture, ethnicity, attitudes and beliefs, often rendering generic educational materials ineffective and inappropriate.

The participants recognized the existence of a wide range of health learning and educational materials for use at these different levels. These are listed from information provided at the workshop (Annex 3). In addition, others are under preparation or planned by individuals, institutions and organizations (Annex 4).

Recommendation 1

It was generally recommended that relevant available materials be adapted and suitably refined, where necessary, to meet identified needs.

In addition, efforts should be made to develop new materials to meet other identified needs listed below.

A. COMMUNITY HEALTH WORKER (CHW)**Recommendation 2**

Although the concept of delivering primary eye care as a part of primary health care has been defined and adopted as an approach in national programmes for the prevention of blindness, there is a paucity of appropriate training materials to meet this need.

The participants recommended the development of suitable materials for the training of both trainers and health workers in primary eye care, as an integral part of primary health care.

The following materials should be considered for development:

- A slide set demonstrating the functional implications of blindness and low vision
- A manual on management of primary eye care services at the community level
- Quick-reference diagnostic cards for CHWs
- A module for working with the incurably blind and those with low vision within communities

Recommendation 3

It was recommended that:

- (a) studies be conducted to identify the barriers that separate the community from available eye health services and from participating in preventive programmes, so that effective educational materials can be developed;
- (b) a training manual be developed to guide community workers through the step-by-step development of eye health educational materials and activities appropriate to their community. This manual should include the use of mass media such as radio or television;
- (c) eye health educational materials be developed for non-literate populations.

B. OPHTHALMIC ASSISTANT/NURSE

The meeting recognized that the responsibilities of these workers vary depending on the region of the world in which they are working.

The job description of these personnel has been fairly well defined. The training materials available and those recommended for development relate to those defined job descriptions and tasks to be performed.

All such personnel are involved in eye health promotion, screening and referral. Some, in addition, carry out diagnostic and treatment activities. In special circumstances, in some regions, the ophthalmic assistant/nurse performs surgery.

Recommendation 4

Training materials for the individual trainee. The following materials were recommended for development:

1. A management module
2. A communication module (interpersonal skills)

Recommendation 5

Training materials for the training centre. The following materials were recommended for development:

Slide sets:

- Glaucoma
- HIV/AIDS and the eye
- Pre- and postoperative care, operative complications of cataract
- Ocular injuries
- Suppurative keratitis
- Leprosy and the eye

Videos:

- Chalazion/evisceration/tarsorrhaphy
- Sterile technique and care of instruments
- Clinical skills

Recommendation 6

Nurses working under supervision of the ophthalmologist and/or in the tertiary centre and theatre. The following materials should be developed for the individual trainee:

Manuals:

- Theatre practice
- Sterilization
- Care of ophthalmic instruments
- Pre-/postoperative care and referral of complications

Recommendation 7

The following materials should be developed for the nurses' training centre:

Videos:

- Sterile technique
- Care of ophthalmic instruments

C. EYE SURGEON

The group recognized that the eye surgeon has responsibilities of management and supervision of all members of the eye service team as well as ophthalmic surgery. Development of the following materials will also strengthen the abilities of the cataract surgeon.

Recommendation 8

The need for training in *eye health care management* was identified as a priority need for all these levels of staff. A manual on management is required, which could be in modular form so that different modules could be used with different levels of staff. It should include case studies, both in written form and as videos. A framework for such a training manual may emerge from the WHO Eye Health Care Management Course in Korat, Thailand (November 1993).

Recommendation 9

A module on *quality assurance for cataract surgery* is required. This module should address all aspects of how to evaluate cataract surgery, including the efficiency of programmes and the outcome of individual operations. It could include the slide set on the complications of cataract surgery.

Recommendation 10

A *manual for cataract surgeons* is regarded as a high priority by the group. This manual should include a detailed description of all stages of intracapsular cataract extraction, including pre- and postoperative management. It would also serve as a reference manual for the surgeon when working on his own, in the event of problems or complications.

Recommendation 11

Slide set in community eye health. The material available for teaching medical students about the medical aspects of ophthalmology is, in general, good. Existing manuals cover the core curriculum of what should be learnt. However, there are no training materials for introducing the concepts of community eye health to medical students or general doctors. It is recommended that a slide set be prepared to cover the essential elements of community eye health, including basic epidemiology and causes of world blindness.

D. GENERAL CONSIDERATIONS

Recommendation 12

The participants observed the general lack of knowledge, among a large proportion of all eye care providers, about the potential care and services available to rehabilitate the irremediably blind and those with low vision.

It was recommended that educational and training materials for primary-, secondary- and tertiary-level workers address the role and responsibilities of the worker towards blind and low vision persons.

Recommendation 13

Continuing education. The group stressed the vital need for continuing education in all aspects of eye care delivery.

The *Community Eye Health Bulletin* currently issued by ICEH serves as a useful medium for continuing education of various grades of health personnel in community eye care worldwide.

The group recommended that:

- (a) review articles published in the *Community Eye Health Bulletin* be collated and published periodically as "updates";
- (b) support be provided for the continuation of this publication and for its translation into other languages as the need arises;
- (c) other written and audiovisual material for different categories of personnel be developed.

Recommendation 14

Translation. Several existing teaching/learning and health educational materials are available in single languages.

It was recommended that, where material suitable for wide use is available, efforts be made to have such material translated into other languages as appropriate.

Recommendation 15

Catalogue of materials available. At the meeting, a great deal of material was presented or described of which other agencies and the WHO Collaborating Centre were unaware. There is a perceived need for one centre to act as a clearing-house for all this material and to prepare and circulate a catalogue, which would include details of where the material could be obtained.

SUGGESTED AGENCIES TO BE RESPONSIBLE FOR REQUIRED MATERIALS

- | | | |
|-----|---|--|
| 1. | (a) Training manual and other materials for primary eye care | HKI |
| | (b) Module on what to do with the low vision and incurably blind patient | ICEH/AWARE
and others |
| 2. | Studies of how community workers can develop their own eye health educational materials, including use of mass media and materials for non-literate populations | HKI/ORBIS |
| 3. | (a) Management module for mid-level eye workers | WHO |
| | (b) Communication module for mid-level eye workers | ICEH |
| 4. | Update materials, such as review articles from the ICEH <i>Bulletin</i> | ICEH |
| 5. | Slide sets for secondary level | ICEH/IOTA/
Aravind/DANIDA |
| 6. | Videos for secondary level | |
| | (i) Chalazion/evisceration/tarsorrhaphy | CBM (Dr Allen Foster) |
| | (ii) Sterilization/instruments | ORBIS |
| | (iii) Clinical skills | IEF |
| 7. | Nursing manuals and videos | ORBIS/Aravind |
| 8. | Eye health care management modules | WHO/?Lions |
| 9. | Quality assurance for cataract | DANIDA/Aravind
with Dr Allen Foster |
| 10. | Manual for cataract surgeons | IOTA/WHO
To be reviewed by
Dr Larry Schwab |
| 11. | Slide set of "Community eye health approach" | ICEH |
| 12. | Slide set on low vision and rehabilitation of the incurably blind patient | ICEH/AWARE
with others |

-
13. (a) ICEH *Bulletin*: updates ICEH
(b) Videos ORBIS
15. Translation Resources: ONCE/OCP
Assistance: Nadi Al Bassar
16. Clearing-house ICEH with
ORBIS/HKI/RBF
for specific aspects

ANNEX 1

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ANNEX 2

AGENDA

Wednesday, 7 July 1993

- 08.45 Registration: Moorfields Eye Hospital
- 09.00 Welcome. Introduction of participants. Election of Chairman and Rapporteur.
Notices

**Available teaching and educational materials:
primary, secondary and tertiary**

- 09.30 Review of written materials
Books. Manuals. Leaflets. Posters. Journals. Newsletters. Others
- 11.00 Review of written materials (continued)
- 11.45 Review of written materials from other sources
- 14.00 Review of colour slide presentations and videotapes
Colour slide sets. Videotapes. Others
- 15.45 Review of colour slide presentations and videotapes (continued)
- 16.56 Review of colour slides and videos from other sources
- 17.00 Close

Thursday, 8 July 1993

**Evaluation of existing materials
Identification of materials required
Recommendations for action**

- 09.00 Division into working groups. Confirmation of agenda

Written materials. Colour slides. Videotapes. Others

- 09.30 Working groups
- 11.00 Working groups (continued)
- 13.50 Group Photograph
- 14.00 Reports from working groups

Annex 2

15.45 Reports from working groups (continued)

17.00 Close

Friday, 9 July 1993

09.00 The Open University
Distance learning from The Open University
Dr Sylvia Sklar

09.40 The Wellcome Trust
Wellcome Videodisc Project. Computer-based interactive teaching materials
Dr Jann Marshall

Conclusions and recommendations

10.45 Training and educational materials - identified future needs
Resources. Target groups. Preparation. Collaboration. Dissemination

13.45 Training and educational materials - identified future needs (continued)
Field-testing. Monitoring. Evaluation. Conclusions. Recommendations

15.00 Close

ANNEX 3

LIST OF AVAILABLE MATERIALS

ARAVIND EYE HOSPITAL

Primary level

Eye care programme in rural areas

A book has been introduced to inform patients about their specific eye disorders.

Videotape

This videotape tries to bring about an awareness of cataract among the rural folk through entertainment programmes such as puppet shows, folk music.

Posters

On motivation of cataract-blind populations regarding IOLs.

Secondary level

Books

Diseases of the eye (translation in Tamil)

Tertiary level

Slide manual

Intraocular lens surgical steps and complications

[A comprehensive slide manual briefly describing each surgical step in extracapsular extraction and posterior chamber IOL implantation]

Videotapes

Surgical procedures in glaucoma

Intraocular lens implantation surgery

Congenital cataracts - various surgical procedures

Surgical procedures in cornea

(a) *Surgery for pterygium*

(b) *Bullous keratopathy*

(c) *Penetrating keratoplasty*

Postoperative instructions (in Tamil)

Annex 3

Posters

Posters detail specific information on ocular disorders in medically accurate, but non-technical, language. Posters have been developed on the following in English and Tamil:

1. *Errors of refraction*
2. *Orbit and oculoplasty*
3. *Glaucoma*
4. *Corneal ulcer*
5. *Cataract surgery*
6. *Squint and amblyopia*
7. *Diabetes and the eye*
8. *Vitamin A deficiency*

Pamphlets

The following pamphlets are made available for the patients in English and Tamil:

1. *Cataract*
2. *Cataract and IOL*
3. *Squint and amblyopia*
4. *Glaucoma*
5. *Diabetes and the eye*
6. *Post-cataract surgery eye care*

Brochures on postoperative care

HELEN KELLER INTERNATIONAL

Primary level

Manuals and guides

- Community-based rehabilitation of the rural blind: A training guide for field workers*
- Early intervention booklets*
- Simple eye care for health care workers*

Posters

- How to keep your eyes healthy*
- Primary eye care basic skills*

Annex 3

Training and educational aids

Vitamin A/Child survival
Guidelines for prevention of blindness due to vitamin A deficiency
Health workers find - treat - prevent vitamin A deficiency
Know the signs and symptoms of xerophthalmia

Secondary level

Manuals and guides

Program and procedures manual: intensive cataract surgical campaign
Controlling vitamin A deficiency: A practical guide
Conducting a qualitative assessment of vitamin A deficiency: A field guide for program managers

Training and educational aids

Saving a child from xerophthalmia

Slide sets

Manual for training health workers in the recognition, treatment and prevention of vitamin A deficiency: Signs and symptoms of nutritional blindness
Prevention of xerophthalmia and nutritional blindness

Tertiary level

Manuals and guides

Providing spectacles at low cost: A practical guide
Research priorities for the prevention of blindness in developing countries
To restore sight: The global conquest of cataract blindness

Slide sets

Clinical characteristics and management of xerophthalmia: A teaching guide for physicians

Annex 3

INTERNATIONAL CENTRE FOR EYE HEALTH

Primary level

Books and manuals

Haryane. A village struggles for eye health
The red eye and the common blinding diseases (manual for distance learning)

Posters

Leprosy and the eye
(a) *Leprosy and the eye. A red eye. What is the cause? What should I do?*
(b) *Leprosy: Protect your eyes*

Secondary level

Newsletter

Community Eye Health Bulletin

Tertiary level

Newsletters

Xerophthalmia Club Bulletin
Community Eye Health Bulletin

Books

Prevention of blindness in leprosy
Duane's clinical ophthalmology. Chapter on Patterns of blindness
Diseases of children in the subtropics and tropics, Stanfield et al, 4th Ed.
Chapter on *Diseases of the eye*

Slide sets

1. *Examination of the eyes*
2. *The eye in primary health care*
3. *Cataract*
4. *Childhood blindness*
5. *Onchocerciasis (river blindness)*
6. *Trachoma*

Videotapes

1. *Eye surgery for the prevention of blindness* (Intracapsular cataract extraction, upper lid entropion, trabeculectomy)
2. *Onchocerciasis*

Annex 3

INTERNATIONAL EYE FOUNDATION

Primary level

Manual

Primary eye care for health workers

Posters

Differential diagnosis and treatment of the painful red eye (commonly known as the "Red eye chart")

Prevent blindness through primary eye care

Chacol la cocal (Protect your child) (in Kekchi, a local Indian dialect in Coban, Guatemala)

Secondary level

Manual

Eye care in developing nations

Booklet

Mass distribution of ivermectin

OCCGE/IOTA

Primary level

How to keep your eyes in good health

Manual for primary school children

Manual for teachers

Posters

"Pagivolte" + guideline for the trainers

Manual for primary health care workers in PEC

WHO training aids in eye care

Annex 3**Secondary level**

Books

Urgent diagnosis in ophthalmology
Ophthalmology for medical assistants. Anatomy, physiology and tropical ophthalmic diseases

Videotapes

Surgical procedures for cataract extraction and trabeculectomy

Slides

"Teaching at low cost" series
WHO series (PEC, trachoma)
IOTA: complete collection of tropical diseases

Surgical training (surgical simulator)

Tertiary level

Books (in French)

Encyclopédie médicochirurgicale: Ophtalmologie
Précis d'ophtalmologie
Ophtalmologie tropicale
Anatomie de l'oeil et ses annexes

ORBIS INTERNATIONAL**Primary level**

Videotapes

Health workers and blindness prevention - ocular leprosy
Trachoma control - a modern approach to an ancient problem
Primary eye care training
Focus on vision

Annex 3**Secondary level**

Manuals

- Elementary school screening training manual*
- Tamizaje de Agudeza Visual en las Escuelas* [Visual acuity screening for schools]
- Tamizaje Visual de Niños* [Childhood vision screening]

NORTH AFRICAN CENTER FOR SIGHT**Primary level**

General public education

- Leaflets, posters*
- Mass media: newspapers, magazines, television*
- Stamps (Behçet's disease)*

Secondary level

Medical auxiliaries education

- Diaporama (slides)*
- Retro-projection*
- Booklets*

Tertiary level

Postgraduate education

- Diaporama (slides)*
- Videotape library (self-teaching)*
- Audio library (self-teaching)*
- Live videotape surgery (workshops)*
- Posters*
- Publications: Abstracts, Quarterly Journal (Al Bassar)*

Annex 3

SIGHT SAVERS

Teachers' handbooks

- Early learning kit for blind children*
- Primary education resource pack (PEP) - a Braille kit*

Posters

- Onchocerciasis*

TALC

Primary level

Book

- Hanyane. A village struggles for eye health*

Slide sets

- Primary eye care: Management of common problems and serious diseases of children*
- Xerophthalmia: The diagnosis and prevention of nutritional blindness*
- Onchocerciasis: River blindness, how it arises and may be prevented*

Secondary level

Book

- Eye diseases in hot climates*

WHO PROGRAMME FOR THE PREVENTION OF BLINDNESS

Primary level

Books

- Strategies for the prevention of blindness in national programmes: A primary health care approach*
- Conjunctivitis of the newborn: Prevention and treatment at the primary health care level*
- Vitamin A supplements: A guide to their use in the treatment and prevention of vitamin A deficiency and xerophthalmia*
- Management of cataract in primary health care services*

Annex 3

Training aids

Primary eye care (booklet and slides)
Primary health care level management of trachoma (booklet and slides)
Information about cataract (pamphlet)

Secondary level

Books

Guidelines for programmes for the prevention of blindness
Methods of assessment of avoidable blindness
Guide to trachoma control
Field guide to the detection and control of xerophthalmia
Control of vitamin A deficiency and xerophthalmia
Strategies for the prevention of blindness in national programmes: A primary health care approach
Conjunctivitis of the newborn: Prevention and treatment at the primary health care level
Vitamin A supplements: A guide to their use in the treatment and prevention of vitamin A deficiency and xerophthalmia
Management of cataract in primary health care services
Prevention of childhood blindness

Manuals

Formulation and management of national programmes for the prevention of blindness: Suggested outlines
The local small-scale preparation of eye drops
Prevention of blindness in leprosy
Coding instructions for the WHO/PBL Eye Examination Record

Regional Office documentation

South-East Asia Region

Eye health in South-East Asia
No. 3, 1981: Relief cataract services in the South-East Asia Region
No. 5, 1985: Primary eye care as an integral part of primary health care
No. 6, 1987: Evaluation of national programmes

Western Pacific Region

Final report of the Regional Workshop on the Planning of National Prevention of Blindness Programmes with Special Emphasis on Training
Report of the Regional Workshop on Training in Ophthalmic Care

Annex 3**Tertiary level**

Books

Guidelines for programmes for the prevention of blindness
Methods of assessment of avoidable blindness
Guide to trachoma control
Field guide to the detection and control of xerophthalmia
Control of vitamin A deficiency and xerophthalmia
The provision of spectacles at low cost
Prevention of childhood blindness

Manuals

Formulation and management of national programmes for the prevention of blindness: Suggested outlines
The local small-scale preparation of eye drops

Regional Office documentation

European Region

The use of residual vision by visually disabled persons

Western Pacific Region

Final report of the Regional Workshop on the Planning of National Prevention of Blindness Programmes with Special Emphasis on Training
Report of the Regional Workshop on Training in Ophthalmic Care

ANNEX 4

LIST OF MATERIALS PLANNED AND IN PREPARATION

(P = Primary level; S = Secondary level; T = Tertiary level)

ARAVIND EYE HOSPITAL

In preparation

Books

- S/T *Manual for ophthalmic nurses*
 S/T *Manual for ward and outpatient nurses*
 S/T *Manual for theatre nurses*
 S/T *Manual for refractionists*

Videotapes on basic ophthalmic nursing and basic general nursing

- S/T *Cataract surgeries and types of IOLs*
 S/T *Preparation of the patient for surgery*
 S/T *Pre-operative investigations*

INTERNATIONAL CENTRE FOR EYE HEALTH

In preparation

Books

- T *Oxford textbook of surgery. Chapter on Surgical eye conditions in the developing world*
 T *Manson's tropical diseases, 20th Ed. Chapter on Tropical ophthalmology*

Slide sets

- T *Glaucoma*
 T *HIV/AIDS and the eye*

Videodisc

- T *Wellcome Tropical Diseases Videodisc Project*
 1. *Childhood blindness: Vitamin A deficiency*
 2. *Childhood blindness: Cataract*
 3. *Childhood blindness: Corneal ulceration and scarring*
 4. *Cataract*
 5. *Congenital cataract*
 6. *Examination of the eye*
 7. *The eye in primary health care*

Annex 4**Planned**

Slide sets

- S *Leprosy and the eye*
- S *Eye injuries*
- S *Diabetic retinopathy*
- S *The red eye*
- S *Atlas of tropical and geographical ophthalmology* (Aeolus Press, The Netherlands, is interested in combining the teaching slide sets to form an atlas)

Development of training and educational materials

- S/T Translation of texts
 - 1. *Community Eye Health Bulletin*
 - 2. *Teaching slide sets*
- T Videotapes
 - 1. *Teaching slide sets*
 - 2. *Lectures at ICEH*
 - 3. *Surgical procedures*
- S Posters
 - 1. *Teaching slide sets*
 - 2. *Others*
- T Commissioning of texts/slide sets
- S/T Teaching slide sets of nursing care - Sterilization, ophthalmic medicines, etc.
- S/T Recording of lectures at ICEH - Tape recordings/copying of colour slides, tape/slide sequences, other recordings
- T Desk-top publishing - Development of a programme to print lectures at ICEH in manual form
- T Mapping, graphics, displays
- T Interactive training programmes. Distance learning. Use of compact discs. CDROM
- P Radio and television - BBC World Service
 - 1. *Public awareness*
 - 2. *Lectures for medical personnel*

Annex 4

OCCGE/IOTA

In preparation

- P** Creation of multimedia training material, in order to improve the quality of communication between eye care workers and patients/population
- S** Creation of a training manual for ophthalmic nurses and for cataract surgeons (non-ophthalmologists)
- S/T** Manual for eye care in children

ORBIS INTERNATIONAL

In preparation

Videotape

- P** *Vitamin A - Preventing blindness, saving lives*

Planned

- T** Computer multimedia project
- T** Satellite conferences
- T** Bulletin board system

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