

Developing an

# Action Plan

to prevent blindness at national, provincial and district levels



Version Two Published 2004

<b>Introduction</b>	
• Purpose and use of this CD	1
• What is “VISION 2020: The Right to Sight”?	2
• Why have VISION 2020: The Right to Sight?	4
• How to involve the government and ensure political commitment?	6
• What is the national structure/organization of VISION 2020?	7
<b>How to Develop an Action Plan</b>	
<b>Chapter 1 Introduction to planning</b>	9
1.1 What are the basic planning concepts?	9
1.2 The district plan: key to the planning process	11
1.3 The planning process summarized	15
1.4 How to organize a planning meeting	17
<b>Chapter 2 Situation analysis – Where are we now?</b>	19
2.1 How to assess needs. What problems are we facing?	19
2.2 How to assess current and past output of eye-care services	21
2.3 How to assess available human resources and their utilization	23
2.4 How to assess available infrastructure and equipment	25
2.5 How to assess community participation	27
2.6 How to assess the existing management	28
2.7 How to conduct a situation analysis meeting	29
<b>Chapter 3 Priorities and objectives – What do we want to achieve?</b>	31
3.1 What are the guiding principles for VISION 2020 action plans?	31
3.2 Determining objectives and targets	32
3.3 Setting priorities - What factors should be considered?	33
3.4 How to formulate strategies to achieve objectives and targets	35
3.5 Specific disease control strategies	37
3.5.1 Cataract	38
3.5.2 Refractive errors	39
3.5.3 Childhood blindness	41
3.5.4 Low vision	43
3.5.5 Trachoma	45
3.5.6 Onchocerciasis	47
3.5.7 Glaucoma	48
3.5.8 Diabetic retinopathy	49
<b>Chapter 4 Planning disease Intervention – using cataract as an example</b>	50
4.1 How to plan cataract intervention in a district	50
4.2 What human resources development is needed for cataract	54
4.3 What infrastructure development is needed for cataract?	55
4.4 How to provide good cataract services	56
4.5 How to provide patient and community education	57
4.6 How to monitor and evaluate district cataract intervention	58
4.7 How to ensure sustainability	59
<b>Chapter 5 Implementation and management - How will we accomplish our goals?</b>	60
5.1 How to build a team and motivate personnel	60
5.2 How to build partnerships	61
5.3 How to create demand	62
5.4 How to manage a district level VISION 2020 action plan	64
5.5 How to monitor and evaluate a VISION 2020 action plan	65
<b>Acknowledgements</b>	66
<b>Annex 1. Help</b>	68
<b>Annex 2. Glossary</b>	71

## Introduction

### Purpose and use of this CD

#### Why this CD?

Many countries are developing, for the first time, VISION 2020 action plans to combat blindness. This CD has been produced to facilitate that planning exercise at the district, provincial, and national levels and to take the user stepwise through the entire planning process.

At every step, the CD provides links to relevant documents and articles (both older and more recent), web sites, slide shows, etc. Additionally, a checklist summarizing action to be taken is provided at each step. All material on this CD can be viewed, printed, and shared.

The information included here is – first of all – a guide to the planning process. Secondly, the CD provides links to a vast library of material on all aspects of blindness prevention – including reports from expert committees, scientific articles, manuals, data-collection templates, guidelines, software packages, and contact addresses – relevant to the planning process.

While this material is all in the public domain, the intention of this CD-ROM is to make it conveniently available in one place for those engaged in the VISION 2020 planning process. Most background material is presented in either .pdf or other easily accessible format.

#### Who will use this CD?

This interactive CD-ROM is intended for those who are involved in the advocacy, design, planning, implementation and monitoring of VISION 2020 action plans and is provided free of charge to national governments, professional organizations, nongovernmental organizations, eye-care managers, and others who implement eye-care programmes.

#### How to use this CD

Use the navigation buttons on top of the screen to move between the different frames on this CD. After reading through the text of the first frame, click “Next” to go to the next frame. Follow the normal sequence which will guide you stepwise through the entire planning process.

Click on “Previous” to go back one frame before the current one. If you wish to go directly to a particular page, click on “Contents” to open the contents page and then click on the topic field of your choice to move directly to that page. Click on “Exit” to leave.

Click on “Help” for more technical details on the use of this CD. Click on “Print text” if you wish to print the complete text of this tool kit as it appears on your screen.

#### Documents

- WHO publications on prevention of blindness (1997)
- WHO/PBL scanned documents, available on the web

#### Web site

- International Resources Centre

## Introduction

### What is “VISION 2020: The Right to Sight”?

#### What is VISION 2020?

VISION 2020: The Right to Sight, is a global initiative to eliminate avoidable blindness. The programme is a partnership between the World Health Organization (WHO), and the International Agency for Prevention of Blindness (IAPB), a large umbrella organization for eye-care professional groups and nongovernmental organizations (NGOs) involved in eye-care.

#### Aim

The aim of VISION 2020 is to eliminate avoidable blindness by the year 2020. Attainment of this aim implies the development of a sustainable comprehensive health-care system to ensure the best possible vision for all people and thereby improve quality of life.

#### History

In the mid-1970s, the International Federation of Ophthalmological Societies (IFOS), the World Blind Union, and a group of international NGOs formed the IAPB. In 1978, WHO established the Prevention of Blindness programme (WHO/PBL).

Throughout the 1980s, a close working relationship developed between WHO/PBL and the NGOs. One outcome of this was the unique partnership between WHO, Merck and Co. Inc., and NGOs involved in onchocerciasis control, which led to collaboration with the World Bank for the development of the African Programme for Onchocerciasis Control (APOC).

In 1994, based on the positive experience of this public–private partnership to control one specific blinding disease, WHO and the NGOs formed a joint task force to address the increasing problem of global blindness. With support from the NGOs, WHO convened consultations with experts in the field, which in 1997 resulted in the publication of *The Global Initiative for the Elimination of Avoidable Blindness*. That document explains the rationale, global strategy, and targets for the VISION 2020 programme.

In May 2003, the World Health Assembly unanimously passed resolution WHA 56.26, which

urges Member States to commit themselves to supporting the Global Initiative for the Elimination of Avoidable Blindness by setting up, not later than 2005, a national Vision 2020 plan, in partnership with WHO and in collaboration with nongovernmental organizations and the private sector.

thus giving a highly visible international impetus to the prevention of avoidable blindness.

#### Priorities for VISION 2020: The Right to Sight

The priorities for VISION 2020 are based on the facts that 75% of blindness and visual impairment occurs in the poor and very poor communities of the world, and that 75% of blindness and visual impairment is a result of five preventable or treatable conditions (cataract, refractive errors and low vision,

#### Documents

- Global Initiative for the Elimination of Avoidable Blindness
- VISION 2020 – Report on World Sight 2002
- WHO What is VISION 2020: The Right to Sight?

#### Internet

- Vision 2020 Declaration of Support
- VISION 2020 International Agency for the Prevention of Blindness (IAPB)
- World Health Organization
- World Blind Union

#### IAPB VISION 2020

##### Task Force Members

- Christian Blind Mission International (CBM)
- Helen Keller Worldwide
- IMPACT-EMRO
- International Centre for Eyecare Education
- International Federation of Ophthalmological Societies (IFOS)
- International Trachoma Initiative (ITI)
- Operation Eyesight Universal
- Orbis International
- Sight Savers International
- The Fred Hollows Foundation
- Lighthouse International
- World Council of Optometry
- Vision CRC

#### IAPB VISION 2020

##### Supporting Members

- Agenzia Internazionale per la Prevenzione della Cecita
- American Academy of Ophthalmology

trachoma, onchocerciasis, and a specific group of causes of childhood blindness). For each of these conditions a cost-effective intervention exists. If priority is given at the global level to improving eye-care services for neglected communities and to targeting these five diseases, it is calculated that instead of 76 million blind people in 2020, there will be 24 million. This is the prime mandate of VISION 2020.

**Structure**

The structure of the global partnership between WHO and IAPB to implement VISION 2020 is summarized in figure 1 below.

Figure 1. WHO, IAPB and VISION 2020



- Asian Foundation for the Prevention of Blindness
- Foundation Dark & Light Blind Care
- Lions Clubs International Foundation
- Organisation pour la Prevention de la Cecite (OPC)
- Swiss Red Cross
- Seva Foundation
- Canadian National Institute for the Blind
- Royal National Institute for the Blind
- Mirada Solidaria Foundation
- UK Vision Forum

**Corporate Patrons**

- Bausch & Lomb

**Corporate Sponsor**

- Carl Zeiss Meditec

**Corporate Donors**

- Alcon
- Merck
- Task Force Sight & Life

**Programme strategy**

The concept of VISION 2020: The Right to Sight, is built upon the foundation of community participation. The following three essential components of the VISION 2020 programme should be part of all existing and future VISION 2020 action plans:

- cost-effective disease control interventions
- human resource development (training and motivation)
- infrastructure development (facilities, appropriate technology/consumables, funds).

**VISION 2020**

**National Bodies**

- V2020 Australia
- V2020 India
- V2020 Paraguay
- V2020 Switzerland
- V2020 UK
- V2020 Netherlands
- V2020 Afghanistan

This concept is schematically illustrated in figure 2.

Figure 2. The VISION 2020 concept



## Introduction

### Why have “VISION 2020: The Right to Sight”?

In 1975, the first global analysis of data on blindness indicated that there were 28 million blind people, i.e. visual acuity less than 3/60 in the better eye with best correction. This figure has been increasing ever since, from **38 million** in 1990 to **45 million** in 2000. Projections, based on the global population increase and ageing, predict **58 million blind** in 2010 and **75 million blind** by 2020. Low vision – i.e. cannot see 6/18 but can see 3/60 in the better eye – is estimated to affect approximately three times as many people.

Of the 45 million blind people in 2000, approximately 60% of blindness was due to cataract and refractive errors (treatable); 15% was due to trachoma, vitamin A deficiency and onchocerciasis (preventable); another 15% was due to diabetic retinopathy and glaucoma (partly preventable, although more difficult); and the other 10% was attributable to age-related macular degeneration and other diseases (research phase).

Five conditions – cataract, refractive errors and low vision, trachoma, onchocerciasis, and vitamin A deficiency and other causes of childhood blindness – are responsible for 75% of all blindness. For each of these five conditions, effective and cost-efficient intervention strategies are available. However, shortages in human resources, training, facilities, equipment, and funds have limited the capacity of intervention strategies to reach the people that need them most.

It has been calculated that of the estimated 45 million blind people in 2000, 1 million per year have had their sight restored through medical intervention, and 6 million will die blind each year. An estimated 8 million new cases of blindness (i.e. the ‘incidence’) are added each year, a net increase of 1–2 million blind people annually. Of all blind people, 90% live in poor communities, 60% of their blindness is treatable and another 20% is preventable.

VISION 2020, a joint initiative by the World Health Organization (WHO) and the International Agency for Prevention of Blindness (IAPB) and its constituent members, provides guidance and technical and resource support to countries that have formally adopted its agenda. At the national level, a strong partnership between the ministry of health, national and international organizations involved in eye care, professional organizations, and civil society groups – brought together in a national prevention of blindness and/or VISION 2020 committee – should facilitate the implementation of effective and efficient eye-care services in all districts of the country.

The strategy of VISION 2020 is built upon the foundation of community participation, with three essential components:

- cost effective disease control interventions;
- human resource development (training and motivation); and
- infrastructure development (facilities, appropriate technology, consumables, funds).

If this strategy is successfully implemented, blindness due to cataract, refractive errors, trachoma, vitamin A deficiency and onchocerciasis, and some due to diabetic retinopathy and glaucoma, should be eliminated. This would

#### Documents

- Blindness: the global picture
- The magnitude and cost of global blindness: an increasing problem that can be alleviated – abstract

#### Articles

- The magnitude and cost of global blindness: an increasing problem that can be alleviated

#### Slide show

- Start slide show that goes with this text

mean that the projected increase in global blindness to 76 million by 2020 could be reduced to approximately 24 million.

A recent study calculated that a successful VISION 2020 programme will prevent 100 million people becoming blind by the year 2020, thereby saving US\$150 billion in lost productivity. **On average, this would mean that per 1 million population, 15 000 people would be spared from blindness, thereby, saving US\$25 million in lost productivity.**

The slide show provided in the links is an illustration of the text. These slides may be used to convince colleagues, policy-makers, and funding agencies of the need to combat blindness in a focused and coordinated way.

## Introduction

### How to involve the government and ensure political commitment?

#### World Health Assembly Resolution 56.26.

On 26 May 2003, the Fifty-sixth World Health Assembly in Geneva accepted the resolution promoted by VISION 2020: The Right to Sight regarding the elimination of avoidable blindness by the year 2020. This resolution urges all WHO Member states to set up national VISION 2020 plans not later than 2005, to establish a national coordinating committee for VISION 2020, and to start implementation of the action plan by 2007 at the latest.

#### Interact with ministers

When promoting VISION 2020: The Right to Sight in your country, the ministers of health, internal affairs, finance, social welfare, education, and development assistance must be seen as allies and should be approached and encouraged to become involved. This promotional effort should be non-partisan, approaching members of all interested and involved groups including opposition parties, since they may become the future government. In addition to the necessary background information, a fact sheet (not more than two A4 pages) may be helpful to gain their support.

#### Why develop an action plan when funding is not assured?

A well-formulated action plan is an important tool for convincing governments and funding agencies to invest money in eye care, thus ensuring optimal use of funds which will always remain limited. Even when funds are available, a good action plan is generally required before money will be released. During the planning process, it will become clear that considerable increases in output can be achieved by improving the efficiency of existing facilities and eye-care personnel with little or no new monetary investment.

#### How to ensure that the action plan is implemented

When governments change, decisions taken by a previous government may lose their priority unless the new government (formerly the opposition) had also been approached and informed. As noted above, these promotional efforts should remain non-partisan. Passing the VISION 2020 action plan through the national legislative body may also add importance to and extend the life of the plan.

#### Check list

- *Prepare fact sheet and background information for advocacy.*
- *Get support of ministers of health and social welfare.*
- *Lobby to get VISION 2020 action plan passed through national legislative body.*

#### Documents

- WHA Resolution 56.26 of May 2003 on the elimination of avoidable blindness
- Editorial: The Resolution of the World Health Assembly on the elimination of avoidable blindness

## Introduction

### What is the national structure/organization of VISION 2020?

Each country participating in the VISION 2020 Initiative should have a **national VISION 2020 committee**, which is responsible for the development and implementation of the VISION 2020 national action plan. All the relevant stakeholders – including ministries of health, ophthalmologists, and other eye-care professional groups, and local and international nongovernmental eye-care providers – should be represented in this committee.

When a national prevention of blindness committee already exists, it need not be dissolved, but could be modified to include all key VISION 2020 components. The committee should be well-integrated into the existing health-care structure with the ministry of health in a coordinating role, and should meet at least twice annually.

It is advisable to have a small task force or executive committee under the ministry of health, made up of key individuals in national eye care, which meets once every one to three months and reports to the national VISION 2020 committee.

It is especially critical at the outset to have a dedicated full-time national VISION 2020 coordinator.

It is important to develop good collaboration and coordination between all the relevant stakeholders, including the private sector. To this end, a section of the proposed plan should clearly describe the structure of the national committee, its membership, and the specific responsibilities of each member (figure 3).

Figure 3. The Partnership structure of VISION 2020



At the district level (ideally, a population of between 100 000 and 2 million), a **district VISION 2020 committee** – responsible for the development and implementation of the district VISION 2020 action plan – should include representation from all the relevant stakeholders. These stakeholders include the district government, ministry of health, ophthalmologists and other professional eye care groups, and local and international nongovernmental eye-care providers.

The committee may also include other parties, such as the education department (eye screening in schools), government departments or NGOs

#### Documents

- Report of the IAPB/WHO workshop on national committees for the prevention of blindness

#### Web site

- VISION 2020

active in rural sanitation (trachoma intervention), and community-based rehabilitation programmes (cataract case-finding). The district VISION 2020 committee should meet at least twice annually.

Also at the district level, it is advisable to have a small task force or executive committee under the ministry of health. This group should include two or three key individuals in district eye care, meet briefly at least once every week, and report to a larger annual meeting of all involved parties.

There should be well-established and regular contacts between the district committees and the national committee, to monitor and evaluate achievements and make adjustments to the action plan when required. A well-functioning management information system is an essential tool for this process.

In many countries, districts have a population of fewer than 100 000. In such cases, the most appropriate unit is often the next level, i.e. the region, the province or the state, or a group of districts together. However, this text will refer only to **national** and **district** VISION 2020 action plans.

When setting up such committees, it should be kept in mind that the larger the committee, the less functional it becomes. A decision must therefore be made in each case to ensure that the need for representation on the committee does not jeopardize its smooth running.

*Check list*

- *National VISION 2020 committee established, meeting twice yearly.*
- *National task force or executive committee established, meeting monthly.*
- *District VISION 2020 committee established, meeting twice yearly.*
- *District task force or executive committee established, meeting every two weeks.*
- *Links between national and district VISION 2020 committees established.*

## Chapter 1 Introduction to planning

### 1.1 What are the basic planning concepts?

A plan is a course of action one intends to follow in order to solve a problem. When many people in many areas are involved, it is essential to indicate clearly who is going to do what, where, and when with regard to defined problems. Since a plan gives objectives, targets, strategies, a time frame, and a budget, one can measure its effectiveness in reducing the problem and its efficiency in terms of cost. Planning is done at various levels.

**At the national level**, the written action plan will focus on analysing problems and developing strategies for the country as a whole. Preparation of the plan will include discussion and decision-making in each of the principal areas to be included in the plan. The final plan will include the following:

- a situation analysis of the current magnitude of the problem and the resources available;
- planned steps to reduce the problem (aims, objectives and targets), and how to achieve each step (strategies, timetable, budget);
- how to implement these activities (management); and
- how to measure whether the objectives are achieved (monitoring and evaluation).

Much emphasis should be placed on developing human resources (training and retraining) and providing adequate facilities and all the resources needed for effective implementation of the plan.

**At the district level**, the written plan will focus more on the actual tasks to be performed – and by whom, where, and when – taking into account resources (human, financial, physical) and organization of those resources. Planning at the district level needs to be more pragmatic and less conceptual than at the national level.

#### Coordinating district and national plans

Planning at the central and peripheral levels should not be considered separate exercises, but complementary ones. Information from districts on the magnitude of the problems and requirements for human resources, infrastructure and equipment is essential for policy-planning at the national level. Similarly, national guidance and policy should also be reflected in district planning. Note that in many developing countries, funding of most district activities is still decided centrally.

#### Documents

- Strategies for the prevention of blindness in national programmes – a primary health care approach

#### Web site

- VISION 2020

#### Templates

- Situational analysis
- LFA format for national VISION 2020 action plan
- Budgeting

Table 1. Planning at national and district levels

Planning level	Focus	Example
<b>National level</b> <i>Strategic planning</i>	Overall objectives; national inputs to achieve objectives; procedures.	Make eye-screening in schools part of the national programme; subsidize standard spectacles for children.
<b>District level</b> <i>Operational planning</i>	Activities based on local needs and realities; optimal utilization of available resources.	Train teachers to screen school-aged children (10–15 years) for refractive errors.

In addition to eye-care services provided by the government sector, such services are also provided by NGOs and private practitioners. Even non-health sectors can contribute to effective eye-care services, such as the district administration, schoolteachers (e.g. eye screening in schools, trachoma control, eye health education) and local volunteers.

**It is essential to involve all participating parties in the planning process.** Cooperation and collaboration during the planning stage can avoid duplication and will increase the efficiency of the available eye-care services in all sectors.

## Chapter 1 Introduction to planning

### 1.2 The district plan: key to the planning process

#### How to make a district plan

The planning process can be condensed to five essential questions, which constitute the “Health Planning and Implementation Cycle”. This cycle is shown in figure 4.

Figure 4. Health Planning and implementation cycle



#### Documents

- Strategies for the prevention of blindness in national programmes – a primary health care approach

#### Web site

- VISION 2020

#### Templates

- Situational analysis
- LFA format for national VISION 2020 action plan
- Budgeting

#### Where are we now? (Situation analysis)

First, we need to know the problem. What is its magnitude? Which people are affected? Where are these people living? We need to know the available resources in terms of personnel, infrastructure, and funds to deal with this problem. What are the present and past outputs of eye-care services in the area? How are resources utilized? If these resources were not utilized optimally, what were the constraints? How can those constraints be overcome? Are there enough resources to deal with the problems? If not, what extra resources would be required?

Data on needs, present and past output, available human resources, and available facilities, equipment and supplies, can be collected by one person or by one or more small subcommittees.

When the data collection is complete, all data are reviewed and approved by the planning committee, usually during a review meeting where all involved parties are represented. In the same forum, all identified constraints in disease intervention, human resources, and facilities and equipment are reviewed.

An analysis, or comparison, of data and constraints is made and possible solutions proposed. The analysis can be done either in a plenary meeting, or by various subgroups, each focusing on a specific disease intervention. A format for “Situation analysis”, provided as a link under “Templates”, may facilitate this process.

#### Where do we want to go? (Priorities, goals, targets)

The constraints, and the proposed actions to overcome them – as identified in the situation analysis – become the building blocks for the action plan. In a VISION 2020 action plan, an “objective” is the action that is proposed to overcome a constraint or problem that has been identified during a situation analysis.

As much as possible, objectives should be stated in ways that will make them measurable. The objectives should also include a time frame.

For example, assume that the needs assessment showed a high prevalence of impaired vision due to refractive errors. There are only a few ophthalmic assistants in the district. They screen schoolchildren, but can cover only a few schools. The constraint is, “Less than 10% of all schoolchildren aged 10–15 years are screened for refractive errors”. The objective is, “Screen all schoolchildren aged 10–15 years (70 000) in the district for refractive errors before the end of 2005”.

It may not be possible to address all constraints, and therefore priorities must be set as to what to tackle first and what later. Aims, objectives and targets must be realistic, keeping in mind the available human, infrastructure, and financial resources. Overambitious programmes often result in activities not being completed in time or at all, targets not being met, and objectives not being achieved.

'If the ideal is not feasible, make what's feasible the ideal.'

### How will we get there? (Strategy, organization, and management)

Activities and sub-activities are directed towards the achievement of the objectives in the VISION 2020 action plan. Taken together, the activities and sub-activities are called the “strategy”, i.e. the best way to achieve an objective. (figure 5)

Figure 5. How findings from the situation analysis become the building blocks of an action plan



Strategies must be clearly defined. In the example above, the proposed strategy is to train 1–2 schoolteachers per school in the use of a simple screening method, to identify children who can see, or not see, an “E” of size 6/9 (20/30, 0.66) at 6 metres (20 feet) with each eye. Those who can see the “E” at this distance are considered to have good vision. Those who cannot are referred to an ophthalmic assistant for refraction.

The sub-activities in this example could be:

- get support of the district education officer
- develop a simple screening methodology that can be used by teachers
- develop training materials
- develop a school eye-screening kit

- develop a monitoring and evaluation system
- train teachers in the use of the screening method
- organize a referral system to ophthalmic assistants
- arrange for a regular supply of spectacles.

A critical assumption in this strategy is that the district education officer would agree with the proposal to use teachers to screen schoolchildren. If the district education officer does not agree, the entire strategy will have to be revised.

For each sub-activity, the person(s) responsible, the start and completion time, and the costs are indicated. Care should be taken so that the people identified are able to perform the assigned tasks, that tasks are distributed evenly, and that particular individuals are not overloaded. Training programmes that may be required are included in the plan. Time schedules are defined, and organizational structures established.

When all objectives, activities and sub-activities have been described, the cost of each individual activity and sub-activity is estimated to provide a budget. This is a complicated – but also crucial – step in the planning process. Budgeting should be pragmatic and realistic, in view of the socioeconomic situation of the area and the country. The Logical Framework Analysis (LFA) format for an action plan – provided under “Templates” – contains a cost column for each (sub)activity. In the descriptive plans, budgeting is usually calculated on a separate spreadsheet. A template for a district budget is also provided.

#### **How will we know when we arrive? (Monitoring and evaluation)**

Monitoring and evaluation of the overall programme and of the various programme activities is essential as an inbuilt activity of the ongoing programme. In this way, implementers can receive essential feedback to check whether the objectives and targets are sufficiently realistic, whether the strategies chosen are effective and/or efficient, and whether the organizational structure is adequate to ensure good management. If required, objectives, targets or strategies can be modified, but should be done so only after approval of the appropriate VISION 2020 committee.

To enable effective evaluation, it is advisable to incorporate a management information system from the outset. The use of appropriate and valid indicators is essential to assess the baseline situation and the impact of subsequent interventions.

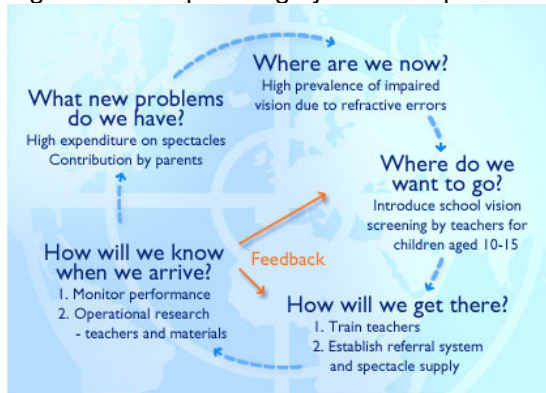
In the example given above, teachers maintain records of those children referred for refraction and those who are wearing spectacles. Comparing these lists with the children's school performance before and after referral will help to indicate the programme's effectiveness.

#### **What new problems do we have? (Forward planning)**

At the beginning of the planning process, we may have started with some assumptions. In the example, initially the number of spectacles provided in the school eye-screening programme was small, but that number increased as the programme expanded, thereby increasing the costs. The high expenditure on spectacles may pose a new problem. This problem could be solved by identifying donors of spectacles or by requesting parents to pay (part of) the

cost. Figure 6 illustrates the different steps in the planning process by using the example of eye-screening in schools.

Figure 6. The planning cycle: example



Planning is a continuously evolving process, with much emphasis on learning. Initially, we may start with a lot of assumptions, but gradually during the process, we will learn more and more detail which will yield better insight and understanding and therefore enable better planning. Regular meetings and visits with colleagues from other districts will encourage additional learning from the experiences of others.

## Chapter 1 Introduction to planning

### 1.3 The planning process summarized

#### A. Where are we now? Situation analysis

1. Make a full and careful assessment of the following.

- Needs: identify the important preventable and/or treatable causes of blindness and visual loss in the area
- Output of eye-care services and constraints to service delivery
- Uptake at both the clinic and community levels
- How developed and functional are outreach services in the area?
- Human resources and training capacity: How adequate are existing staff skills? What additional skills are required?
- Infrastructure (facilities, equipment, supplies). What is available, in what condition? How regularly? Are there periods of shortages?
- Existing community participation. Who, how?
- Existing management system. Who does what? What data are currently being collected? What indicators are being used? Channels of communication.

2. Analyse the relationships among the above items. For example, match the present output with the available human resources and infrastructure and assess their utilization. Match existing services to needs, identify gaps and determine reasons for the gaps. Propose solutions.

#### B. Where do we want to go?

Set priorities, goals and targets to be achieved in each year over a five-year period.

#### C. How will we get there?

Formulate the strategy. Determine the specific activities and interventions for each targeted disease.

#### D. How do we know we have arrived?

Determine ongoing monitoring and evaluation activities to measure indicators that will show progress toward the goals and targets. Use VISION 2020 global database indicators as a model.

#### E. What new problems do we have?

Forward planning. Determine what might happen or what did happen as a result of plan implementation. How has this affected the current situation? What adjustments need to be made?

#### Documents

- Strategies for the prevention of blindness in national programmes – a primary health care approach
- VISION 2020 launched in French- speaking Africa
- WHO Director-General launches a global initiative to combat avoidable blindness
- VISION 2020 launched in English- speaking Africa
- VISION 2020 launched in the Western Pacific
- Course manual for VISION 2020 workshops

#### Articles

- Blindness prevention programmes: past, present and future
- Prevention of blindness and priorities for the future
- National prevention of blindness programmes and VISION 2020
- National prevention of blindness programmes

#### Templates of national VISION 2020 action plans

- Descriptive format for national VISION 2020 action plan
- LFA format for national VISION 2020 action plan
- Draft agenda for VISION 2020 workshop

#### Examples of national VISION 2020 action plans

- African programme: Kenya

- South American programme: Brazil
- Cambodia's National Eye Care Programme and VISION 2020: The Right to Sight

**Logical Framework Analysis**

- UNDP Logical Framework Analysis
- Australian Government Logical Framework Analysis
- Gantt chart: time frame for action plan

## Chapter 1 Introduction to planning

### 1.4 How to organize a planning meeting

#### **Who should take the initiative to develop a VISION 2020 action plan?**

There is no standard procedure. In some cases, the ministry of health has signed the VISION 2020 *Declaration of Support* and initiates planning workshops. In other cases, one or a few enthusiastic groups or individuals involved in combating blindness begin promoting VISION 2020. It is essential to involve all parties that participate in the delivery of eye care in the preparations and in the actual planning process for the VISION 2020 action plan.

A number of countries already have national prevention of blindness programmes and action plans. In this case, it may not be necessary to write an entirely new plan, but the existing plan should be made VISION 2020-compliant.

#### **Who should be involved?**

The initiating group identifies the other parties contributing to eye-care in the country or region – the government, national and international NGOs, and professional groups, as well as the private sector – and attempts to persuade them to join this initiative. The government should have a coordinating role in the planning process.

Experience shows that coordination and cooperation result in better utilization of available eye-care facilities and avoid duplication of efforts, and that the promotion of eye care leads to more work for all parties. The number of people aged 50 years and older (those most at risk for low vision and blindness) will continue to increase rapidly and no eye-care provider should fear unemployment.

#### **What if national and district blindness prevention plans already exist?**

Existing plans for the prevention and control of blindness need not be discarded, but rather should be reoriented to include all key VISION 2020 components. Preparation will be less extensive, as most of the baseline information is probably already available. The VISION 2020 committee should follow the same steps of the planning process as outlined above, and update existing plans as and where necessary.

#### **How will the process develop?**

Some steps in the planning process can be carried out by small subcommittees. Others must be accomplished in a planning meeting with all partners involved. Each step provides building blocks for the VISION 2020 action plan.

It is advisable to make an action plan for a five-year period, with annual evaluations for minor adjustments and a mid-term review for possible major adjustments. Reliable and valid indicators are needed to describe the situation at the start of the action plan and to measure the impact of the programme. These are further described in the monitoring and evaluation section.

It may be useful to formulate district level VISION 2020 action plans first, as this will provide the national VISION 2020 committee with valuable details about the needs for disease control and resource requirements at the implementation level of eye-care services. As mentioned earlier, district

planning should concentrate on the operational aspects to improve the output of eye-care services in the district, and on who should do what, where, and when.

The national VISION 2020 action plan should focus on creating the necessary facilities, infrastructure, and human resources for successful implementation of the district-level plans. The national plan should address constraints common to all districts (e.g. procurement of essential eye medicines and supplies) or those related to policy or structure or the lack thereof, including monitoring and evaluation, publicity, and promotion of VISION 2020 activities.

Two templates have been included to help in writing a VISION 2020 action plan. The first template is descriptive, with quantitative data in a separate spreadsheet.

The second template is based on the Logical Framework Approach (LFA), a systematic approach to analyse the current situation, formulate objectives in a logical hierarchy, identify potential risks, establish how outputs and outcomes might best be monitored and evaluated, present a summary of the project in a standard format, and monitor and review the action plan during implementation.

In the following frames, each of the steps in the planning process for a district VISION 2020 action plan is discussed in detail. At the end of each frame, a checklist indicates activities that should be completed before the next step is begun.

## Chapter 2 Situation analysis – Where are we now?

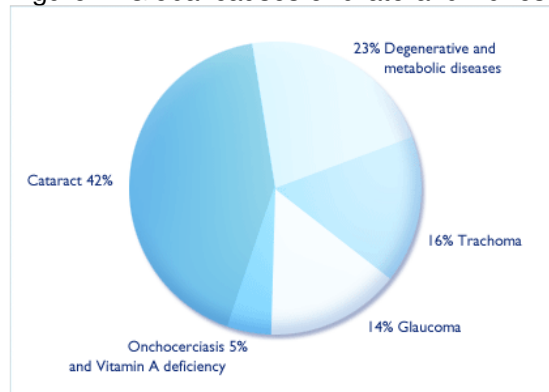
### 2.1 How to assess needs – What problems are we facing?

The first step in the planning process is the assessment of the total magnitude of blindness and low vision in the country or district, the identification of the main causes of blindness, and the assessment of their magnitude. Such data can be available from population-based blindness surveys (the best option), or from Rapid Assessments of Cataract Surgical Services (RACSS), Trachoma Rapid Assessments, Rapid Epidemiological Assessments for Onchocerciasis, etc. (second option).

Check with all partners providing eye-care services to determine what data they have. Always check whether these data were collected using standardized population-based survey methodology and whether the findings are current or outdated. If data are not available or no longer valid, population-based surveys can be undertaken – provided adequate resources are available. Under “Software”, two links refer to manuals and software packages to conduct such surveys.

When no reliable data are available and new surveys are not an option, the magnitude of blindness and its various causes can be estimated by selecting a neighbouring country with a similar socioeconomic situation and health-care system, and using their data (third option). The last (fourth) option is to estimate the magnitude of blindness either through extrapolation from a reference table or the world blindness prevalence map, provided as a link. Select the region in which your country is located and use the prevalence estimates of that region. It is appropriate to review data on all major causes of blindness (Figure 7).

Figure 7. Global causes of bilateral blindness



When appropriate blindness data for the area are collected, these can be entered in a specially-designed spreadsheet (“Templates”: planning spreadsheet, worksheet: “Needs”). The spreadsheet will help to calculate the caseload for total blindness and the various causes of blindness in the area.

Some indicators for the situation analysis, such as the cataract surgical coverage and the proportion of successful cataract operations, can only be obtained through population-based surveys or specially-designed management information systems.

#### Documents

- WHO Available data on blindness (1987)
- WHO Available data on blindness (1994)
- WHO Global data on blindness – an update
- Estimate needs by extrapolation from reference table
- World blindness prevalence map
- Consultation on development of standards for characterization of visual loss and visual functioning
- Different measurement systems for visual acuity

#### Web sites

- WHO Prevention of blindness and deafness

#### Templates

- Planning spreadsheet
- WHO/PBL Eye Examination Record
- Coding instructions for WHO Eye Examination Record Form

#### Software

- Rapid Assessment of Cataract Surgical Services (RACSS)

*Checklist*

- *Collect prevalence and number of persons who are blind and visually impaired in the area, using appropriate levels of visual acuity.*
- *Assess causes of blindness: prevalence and numbers affected.*
- *If not available, consider conducting survey or rapid assessment.*

## Chapter 2 Situation analysis – Where are we now?

### 2.2 How to assess current and past output of eye-care services

First of all, population data for the district are needed. The local or national census office usually has the latest census data or population projections, by age group, gender, urban–rural distribution, and growth rate. Another reliable source is the planning unit of the ministry of health. If such data are not available in these locations, the internet sites mentioned under “Population data” may provide such data for your country.

Also, collect general indicators such as literacy rates, under-5 mortality rate, and the coverage of measles and rubella vaccination. Finally, obtain detailed maps of the area being considered.

Then, collect output data relating to all activities for the prevention and control of blindness during the previous five years from all partners that provide eye care services in the district. Minimal data should include the following.

- Performance data for eye care during the past five years for the entire district:
  - admissions per unit; total admissions per year
  - outpatients per unit; total outpatients per year
  - cataract operations per unit; total cataract operations per year
  - cataract surgeons per unit; total cataract surgeons in the district per year
  - proportion of intraocular lenses (IOLs) implanted per unit; total number of IOLs implanted per year
  - other operations per unit; total number of other operations per year
  - persons provided with spectacles per unit; total persons provided with spectacles per year
  - number of people provided with low-vision care per unit; total number per year.
- For trachoma, onchocerciasis and/or vitamin A deficiency, if applicable:
  - total number of people treated for active trachoma per year
  - total number of people operated for trichiasis per year
  - total number of people treated with ivermectin per year
  - whether a vitamin A supplementation or fortification programme is implemented
  - number of children provided with vitamin A per unit; total per year.
- Combining these figures with other data will provide the following indicators:
  - the Cataract Surgical Rate (number of cataract operations per million population per year)
  - average number of cataract operations per eye surgeon per year
  - average number of cataract operations per eye unit per year
  - utilization of staff and surgical units per year
  - population per eye surgeon per year
  - population per eye bed per year, etc.

A specially designed spreadsheet format to enter data related to cataract, refractive errors, trachoma and onchocerciasis, and to automatically calculate related indicators, is provided under “Templates”, “Planning spreadsheet”.

#### Documents

- What is Cataract Surgical Rate
- What is Cataract Surgical Coverage

#### Articles

- Cataract Surgical Coverage: an indicator to measure the impact of cataract intervention programmes

#### Population data

- United Nations online population database
- United Nations Population Information Network
- World Bank
- US Census Bureau

#### Templates

- Situation analysis
- Planning spreadsheet

Open worksheet “Output” and enter the data for the area of concern. Data on human resources and infrastructure should be entered in the respective worksheets.

To complete this part of the situation analysis, identify constraints to output and propose possible actions to overcome them. Detailed analysis can be facilitated by the “Situation analysis” template, using one form for each disease intervention.

*Checklist*

- *Collect population data, general and health indicators.*
- *Collect detailed maps of the area(s) of concern.*
- *Collect output data from all partners in the district over the previous five years.*
- *Collect indicators on coverage and outcome.*
- *Calculate output and coverage indicators per year.*
- *Indicate constraints to output and propose actions to overcome them.*

## Chapter 2 Situation analysis – Where are we now?

### 2.3 How to assess available human resources and their utilization

Make a list of the available human resources in the area. Because designations of ophthalmic personnel may vary considerably among countries, it may be advisable to classify them into six categories, as follows:

1. ophthalmologists/eye doctors
  - a) who perform cataract surgery
  - b) who do not perform cataract surgery
2. full-time eye workers who are not ophthalmologists or eye doctors, e.g. nurses, assistants
3. optometrists/refractionists/opticians
4. primary eye-care workers
5. community workers
6. allied eye-health workers (not directly involved in clinical care).

These six groups can then be further categorized by function and by training. Describe the distribution of key eye-care personnel throughout the district, and the current policies for recruitment, deployment, and use of trained personnel – especially in underserved areas.

For each cadre or group, indicate the training capacity (if available) at the district level. In most cases, primary eye-care (PEC) workers are trained at the district level. Few districts have training capacity for mid-level eye-care personnel, while training capacity for ophthalmologists is rare.

To collect and maintain accurate data on available eye-care staff and training capacity in the country or district, it can be helpful to distribute standardized questionnaires (see under “Templates”) once yearly to district medical officers and all other partners. Combining output data with available human resources will determine output per cadre and allow calculation of utilization and capacity of human resources.

When output and/or capacity are low, constraints need to be identified and action to overcome them should be proposed. Low output or capacity could be due to low patient demand, shortage of operating theatre (OT) staff, deployment policies, poor guidance and supervision, etc. Each of these causes requires a different solution.

Even when human resources are not constrained, training of new staff and continuous medical education for existing staff is incorporated into VISION 2020 action plans. Whenever human resource development activities are required, objectives, aims, and targets of the training programmes are mentioned in detail.

The district VISION 2020 committee should constantly be alert to underutilized capacity in terms of human resources. Re-allocation and delegation of tasks may be the most appropriate way to distribute the workload more effectively. In such cases, it can be helpful to perform a time analysis. Each cadre of eye-health worker should maintain a diary for two weeks, in which the worker records for each hour how many minutes are spent on clinical work, surgery, administration, management, or teaching. This analysis will help to determine which activities are essential and which could be delegated to other staff.

#### Documents

- WHO list of training aids (1995)
- Workshop on curriculum development for training in community ophthalmology
- Eye care training programmes
- Directory of teaching and information resources for blindness prevention and rehabilitation (2<sup>nd</sup> edition, 2004)

#### Articles

- Teaching resources: be prepared!
- Training a cataract surgeon
- Training in surgical skills
- Practical examples to increase efficiency

#### Web sites of Centres for Community Eye Health Training

- International Council of Ophthalmology
- International Centre for Eye Health, London
- The Wilmer Eye Institute, Baltimore, USA
- L.V. Prasad Eye Institute, India
- Aravind Eye Hospitals, India
- Pakistan Institute for Community Ophthalmology (e-mail)

#### Templates

- Planning spreadsheet
- Time analysis format
- Questionnaire on human resources infrastructure and equipment

*Checklist*

- *Send annual questionnaire on human resources, infrastructure and equipment to all partners.*
- *Calculate output per eye-care worker.*
- *Calculate capacity and utilization of human resources.*
- *Identify human resource constraints to increasing output.*
- *Propose actions to overcome these constraints.*

## Chapter 2 Situation analysis – Where are we now?

### 2.4 How to assess available infrastructure and equipment

Make a list of the available facilities, ophthalmic beds, and equipment in the area. Include all service providers in the government sector, the voluntary sector, nongovernmental organizations, and the private sector. The use of a standardized questionnaire, sent annually to all partners, can be helpful. Also try to assess suppliers and the quality and cost of equipment and supplies that they provide.

Combining output data with information about available beds and equipment will give output per bed and allow calculation of capacity and utilization of beds and equipment. When utilization and/or capacity are low, identify causes for and propose action to overcome these constraints.

Then consider the output required to fulfill needs and estimate requirements for facilities and equipment. Assess the gaps between current and required availability and propose ways to bridge these gaps.

#### The role of VISION 2020 concerning infrastructure and equipment

Developing sustainable national capacities in infrastructure and appropriate technology is the third main pillar of a VISION 2020 action plan.

A standard list of ophthalmic equipment and supplies is provided as a link under “Documents”. Two other lists, in use in Africa, are also provided to illustrate how such lists can be modified for local use.

#### Regionalization, standardization, and bulk purchasing

Considerable savings are possible through standardization and by purchase in bulk of equipment and spare parts, instruments, and consumables. Purchase in bulk by regional consortiums can significantly reduce costs – including maintenance and repair expenses – and ensure continuous availability.

VISION 2020 is developing targets and norms for hospital beds for eye patients, operating rooms, instruments, essential medications, refraction facilities, etc. Global targets include the achievement of not less than 95% availability, 90% accessibility, 90% utilization and 90% coverage of services by 2020, as compared to 50%, 40%, 25%, and 25% respectively in 2000.

#### Appropriate technology

A number of technological advances in recent decades have improved the quality and acceptance of eye care by the community. However, the cost of such advances often inhibits their wide use in prevention of blindness programmes.

The transfer of technology to developing countries helps overcome this problem. Such technology transfer allows manufacturing high-quality equipment and consumables at low cost. The manufacturing of IOLs for cataract surgery by non-profit institutions in developing countries has made IOLs affordable and has led to their widespread use. Other supplies, such as eye medications, sutures, spectacles, and low-vision devices are now also becoming available.

#### Documents

- Standard list of ophthalmic equipment (2004–2005)
- Check for latest Standard list
- VISION 2020 – infrastructure and appropriate technology
- Ophthalmic instruments and equipment – a handbook on care and maintenance
- The local small-scale preparation of eye drops – eye-drop update 2002
- Equipment and drugs list used in Africa
- Maintenance and repair of surgical instruments
- Equipment and consumables for newly appointed holders of Diploma in Ophthalmology

#### Articles

- The maintenance and repair of ophthalmic surgical instruments – training at the eye clinic
- Care of ophthalmic surgical instruments
- Care of ophthalmic surgical instruments – pictures
- Training in the care of equipment and instruments
- ITIR: Appropriate technology in ophthalmology
- An audit of the use of ophthalmic theatre time
- Mould In optical instruments

#### Templates

- Questionnaire on human resources infrastructure and equipment
- Planning spreadsheet
- Spreadsheet cataract output by eye unit

### **Repair and maintenance**

The increase in the use of sophisticated instruments and equipment during the last decade has led to a higher quality of and increased demand for eye-care services. This development has also resulted in a higher dependency upon the proper functioning of such equipment. Adequate maintenance and repair by

specially-trained staff will both extend the lifetime, reduce costs, and ensure optimal utilization of expensive equipment and increase the effectiveness of the ophthalmic staff.

#### *Checklist*

- *Send annual questionnaire on human resources, infrastructure and equipment to all partners.*
- *Calculate output per facility, bed occupancy.*
- *Calculate capacity and utilization of infrastructure and equipment.*
- *Identify constraints in infrastructure and equipment to fulfilling the required output.*
- *Propose actions to overcome these constraints*

## Chapter 2 Situation analysis – Where are we now?

### 2.5 How to assess community participation

The present level of community participation should be assessed in order to determine whether the current involvement is adequate in view of the identified needs for control of disease.

Community participation should be assessed at both the primary and secondary eye-care levels (i.e. whether it exists and its functionality). Community participation should be analysed from the following two perspectives.

- **Access to and uptake by existing eye-care services**  
Are there barriers or other constraints to the use of services at the eye unit itself? How developed are the outreach services? Do they operate as intended? Assess the number of staff working in primary eye care and in outreach facilities. Measure their output in terms of the number of cataract cases screened and actually brought for surgery, schoolchildren identified with refractive errors and provided with spectacles, trichiasis cases brought for surgery, treatment provided for patients with active trachoma or onchocerciasis, etc.
- **Community involvement and use of services by the community**  
Do community members seek out eye-care services when needed? To what extent do they support activities designed for their benefit? Is the community actively involved in eye-screening in schools, village health committees for trachoma control activities, community-directed treatment with ivermectin, or other eye-care activities. Identify possible constraints and indicate where and how increased community participation could be of further help.

#### Why community participation?

Representatives of the community should be involved in the planning and implementation of the programme. This involvement will help eye-care providers to take into account the priorities of the community and thereby increase the use of these services.

Good examples of community participation involve the field workers of community-based rehabilitation (CBR) programmes. CBR volunteers identify visually impaired people in the community. These people are then examined by ophthalmologists to determine those who require clinical treatment and those who need rehabilitation and low-vision care. Other practical examples are community-directed treatment with ivermectin, and village health committees involved in trachoma control activities.

#### Checklist

- *Assess availability of primary health care workers and assess their involvement in primary eye care.*
- *Assess current community involvement in eye-care activities.*
- *Identify where and how increased community participation could contribute to fulfill needs.*

#### Documents

- Achieving community support for trachoma control
- Collaboration with African traditional healers for the prevention of blindness
- The healthy eyes activity book

#### Articles

- Community participation: "putting the community into community eye health"
- Health promotion and community participation in eye-care services
- Mobilising resources within the community: "Mobilising the unmobilised"
- Community selection of ivermectin distributors

#### Templates

- Planning spreadsheet

## Chapter 2 Situation analysis – Where are we now?

### 2.6 How to assess the existing management

Draw a diagram of the current management system for eye care, or for the health-care system responsible for eye-care services when there is no separate blindness control programme in the country. Draw each group involved in the delivery of eye-care services in a box and indicate with arrows the relationships between these parties. Make a list of the responsibilities, functions, and activities of each group. Identify possible constraints in the current management and propose remedial measures.

#### Documents

- Formulation and management of national programmes for the prevention of blindness: suggested outlines

#### Checklist

- *Construct organigram of the current management system for eye care.*
- *Identify relations between all parties involved in eye care in the district.*
- *Identify responsibilities, functions, and activities of each party.*
- *Identify constraints in management system to increasing output.*
- *Propose actions to overcome these constraints.*

## Chapter 2 Situation analysis – Where are we now?

### 2.7 How to conduct a situation analysis meeting

**Template**  
 ■ Situation analysis

While the previous steps (involving information gathering) could be done by individuals or small subcommittees, the analysis of the information is best conducted in a planning meeting with all parties represented. However, for reasons of ownership and to make them as district/region-specific as possible, information-gathering and reviews should be conducted first by districts and then – and only then – discussed in a plenary session.

The planning meeting should first review all data collected on needs, human resources, infrastructure and equipment, community participation and the present management of eye-care services, the constraints identified, and the proposed remedial action. This review process can be done in a plenary meeting or in several subcommittees, who later present their findings to the entire meeting.

#### **Estimate the average output per eye-care staff member**

The average output per eye-care staff member per year for a certain disease intervention is estimated by dividing the annual output during that year by the available human resources in the same year. For example, 2000 cataract operations done by 10 eye surgeons in a year gives an average cataract output of 200 operations per eye surgeon. Some countries use norms for the annual output per eye-care worker, based on the local situation under optimal circumstances. Another option is to decide on a district norm in consultation with the local eye-care workers.

If eye-care workers did not meet this norm, local conditions have to be examined carefully to identify the constraints. Remedial action needs to be taken to ensure that workers can meet the norm in the future.

By comparing the annual output with the norm, the utilization of eye-care staff can be calculated, i.e. if the annual output is 200 cataract operations and the norm is 250 cataract operations, then the utilization is  $(200/250) \times 100 = 80\%$

#### **Estimate the average required workload for each category of worker**

Divide the available human resources for each disease intervention by the estimated magnitude of blindness/low-vision prevalence. This will indicate the average required workload for each category of eye-health staff, if all these cases were to come forward for treatment. This is part of needs assessment and helps to answer the question “What do we have to do?”

#### **Evaluate the present and required output for facilities and equipment**

In a similar way, the present and required workload of each facility and the utilization of major equipment, can be evaluated. Shortages or inappropriate distribution of facilities, equipment, or supplies will also result in gaps in output.

#### **Analyse the difference between current and required outputs**

This difference reflects the portion of required services currently being met. If there is a gap between these outputs, it should be analysed to determine constraints, e.g. whether in case-finding, referrals, admissions and treatment, follow-up, or prevention.

**Use of the VISION 2020 templates**

The template for “Situation analysis” can help the user to assess the present situation for each of these aspects, whether or not this situation is adequate, how

to increase future output, the future objective or target, and what activities and inputs are required to achieve this objective. This analysis will help to determine whether any future increase in output can be achieved through increased efficiency, through expansion of human resources, or both. It will also help to determine training requirements for existing and new staff.

If area-specific data are entered in the planning spreadsheet, the sheets “Cataract” and “Refractive errors” will provide details of the gaps. For other VISION 2020 global priority areas – such as trachoma, onchocerciasis, childhood blindness, and low vision – specialized methodologies exist and should be consulted. Links are provided in the respective chapters.

**Situation analysis at the district level**

At the district level, it may be helpful to record the monthly output of each hospital or eye-services facility during the previous year (use template “Spreadsheet cataract output by eye unit”). This will reveal any seasonal trends and show the contribution of each unit. This data may help in analysing why certain units are more successful in case-finding and treatment than others, and how efficiency can be increased. It also provides useful information for the distribution of future targets. The total output over the year for a certain disease intervention, divided by the number of facilities and equipment indicates the average utilization of facilities in the district.

**Warning:** Too much monitoring kills monitoring. Information to be collected at the district level (or eye-unit level) must be “essential” (as opposed to “ideal”) and condensed into as few forms as possible.

*Checklist*

*Bring all key players together in planning meetings to:*

- *review, refine and accept data on needs and current output*
- *review, refine and accept data on available human resources, facilities and equipment*
- *identify gaps between present output and required output*
- *identify constraints responsible for the gaps in output.*

### **Chapter 3 Priorities and objectives – What do we want to achieve?**

#### **3.1 What are the guiding principles for VISION 2020 action plans?**

In addition to the foundation of community participation and the three essential components of human and infrastructure development targeted at specific cost-effective disease interventions, there are four guiding principles for a VISION 2020 project. These can be summarized as 'I SEE', representing Integrated, Sustainable, Equitable and Excellent.

- **I: Integrated.** VISION 2020 activities should normally be integrated into existing health services. Although certain elements are specialized (e.g. cataract surgery), VISION 2020 should not stand alone but wherever possible should be integrated into district-level health services.
- **S: Sustainable.** Eye-care services need to be ongoing and long-term – sustainable with respect to both financial and personnel resources. This is particularly difficult in Africa and poor areas of Asia, but there exist good models from which we can learn and replicate as far as possible. It is also necessary to acknowledge that we cannot always expect self-sustainability, and sometimes it is simply necessary to provide for people in very poor areas.
- **E: Equitable.** Eye-care services should be available to all sectors of society, not just to those who can afford it or who live in urban situations. This again is particularly challenging in Africa, because of poor distribution of specialists, poverty, low density of population, and difficult terrain.
- **E: Excellence.** High-quality clinical and non-clinical care is essential if fears of eye surgery are to be overcome. Poor quality services, either clinical or non-clinical, should not be offered simply because people cannot pay.

'Do not withhold good from those who deserve it,  
when it is in your power to act.'

## Chapter 3 Priorities and objectives – What do we want to achieve?

### 3.2 Determining objectives and targets

#### Objectives

Objectives in a VISION 2020 action plan are actions that are designed to overcome a constraint identified in the situation analysis. Taken together, a group of objectives form a strategy. Objectives should describe a specific action, be time-dependent (to be completed in a specified amount of time or by a specified date), measurable, and realistic.

#### Example

For example, assume that the needs assessment showed a high prevalence of impaired vision due to refractive errors. There are only a few ophthalmic assistants in the district. They screen schoolchildren, but can cover only a few schools. The constraint is, “Less than 10% of all schoolchildren aged 10–15 years are screened for refractive errors”. The objective is, “Screen all schoolchildren aged 10–15 years (70 000) in the district for refractive errors before the end of 2005”.

#### Realistic

It may not be possible to address all constraints. Therefore, priorities have to be established, as to what to tackle first and what later. Aims, objectives and targets should be realistic, keeping in mind the available human, infrastructure, and financial resources. Overambitious programmes often result in activities not being completed in time or at all, targets not being met, and objectives not being achieved.

#### Documents

- Introduction to evidence-based practice and the Cochrane Eyes and Vision Group
- Report of the informal consultation on the economic analysis of sensory disabilities

#### Templates

- Situation analysis
- Time frame, costs and responsible persons(s) for each activity
- Gantt chart
- Planning spreadsheet
- LFA format for national VISION 2020 action plan

## Chapter 3 Priorities and objectives – What do we want to achieve?

### 3.3 Setting priorities – What factors should be considered?

#### Greatest impact with least demand on resources

Depending upon the available resources, priorities for disease intervention to be included in the VISION 2020 action plan should be those by which the most impact can be made with the least demand on resources and funds.

#### High visibility

From a public-relations point of view, it can be advisable to start with or include in the VISION 2020 action plan intervention activities that are highly visible and produce quick results. This approach will generate goodwill and support, which will make it easier to change to less visible intervention programmes at a later stage. Screening schoolchildren for refractive errors, for example, is an intervention with high visibility, quick results, and low costs.

#### Building viable and functional infrastructure

In addition to disease interventions, other areas indirectly linked with disease intervention – such as programme management, monitoring and evaluation, training, community participation, and financial sustainability – should also be given priority status in order to improve the output and impact of eye-care services.

#### Data and guidelines

Existing systematic reviews and evidence-based guidelines for intervention can also be helpful in identifying priorities in national and district level VISION 2020 action plans.

#### Integration of primary eye care into primary health care

Primary health care (PHC) is a fundamental WHO concept for improvement of health. That primary eye care is an integral part of PHC can be seen from the list of main PHC activities shown in the following table.

PHC activity	Primary eye care
1. Immunization	Measles vaccination prevents blindness from measles; rubella vaccination prevents congenital rubella syndrome
2. Better nutrition	Prevents vitamin A deficiency
3. Water and sanitation programmes	Relevant in trachoma control
4. Control of common diseases	Trachoma and onchocerciasis control
5. Delivery of maternal and child health care	Reduce retinopathy of prematurity
6. Health education	Prevention of eye trauma
7. Simple treatment	Treatment of simple eye diseases
8. Essential drugs supply	Availability of tetracycline eye ointment for trachoma and common eye infections; vitamin A capsules for xerophthalmia, ivermectin for onchocerciasis

Primary health-care workers are ideally placed to identify blind and visually impaired people in the community. With additional training they can diagnose and refer patients to the appropriate eye-care workers and provide basic treatment for simple eye diseases.

#### Templates

- Situation analysis
- Time frame, costs and responsible persons(s) for each activity
- Gantt chart
- Planning spreadsheet
- LFA format for national VISION 2020 action plan

### **Ensuring sustainability**

Sustainability implies the ongoing availability of adequate resources – people and funds – and a conscious effort to keep costs low. This requires an adequate organizational structure, available to take decisions when required; a culture of cost-consciousness; optimal utilization of staff, infrastructure and equipment; utilization of community resources; highly disciplined (strict) purchase policies, etc. Even then, costs may still prove too high for many patients and some form of cost-sharing to subsidize poor patients may be required. Some hospitals generate income from paying patients, others from the sale of spectacles or locally manufactured drugs.

## Chapter 3 Priorities and objectives – What do we want to achieve?

### 3.4 How to formulate strategies to achieve objectives and targets

A strategy is the total of all the activities needed to achieve an objective. Each activity and sub-activity in a strategy should be clearly defined. Each strategy usually consists of a main activity, divided into a number of sub-activities.

In a previous example, the strategy proposed is to train 1–2 teachers per school in the use of a simple screening method, to identify children who cannot see an “E” of size 6/9 (20/30, 0.66) at 6 metres (20 feet) with either eye. Those who can pass this simple test are considered to have good vision. Those who cannot are referred to the ophthalmic assistant for refraction.

The sub-activities in this example could be to:

- secure the support of district education officer
- develop a simple screening methodology that can be used by teachers
- develop training materials
- develop a school eye-screening kit
- develop a monitoring and evaluation system
- train teachers in the use of the screening method
- organize a referral system to ophthalmic assistants
- arrange for a regular supply of spectacles.

Each of these can be further subdivided into additional sub-activities

Indicated for each sub-activity are the person(s) responsible, the start and completion time, and the costs. Care should be taken that people are able to complete the assigned tasks well and in time, that tasks are distributed evenly, and that certain individuals are not overloaded. Required training programmes are included in the plan as sub-activities. Time schedules are defined and illustrated on a Gantt chart. Organizational structures are established.

Three critical assumptions in this strategy are that a district education officer exists, that the officer agrees with the proposal to use teachers to screen schoolchildren, and that the teachers are willing to do this extra work. If any of these critical assumptions is not true, the entire strategy will fail and will have to be revised.

In most cases, activities and sub-activities need to be completed before the next one can start. With clearly defined (sub)activities, monitoring and evaluation of progress under the action plan become much easier and more meaningful.

Use reliable and valid indicators to monitor achievements and to evaluate the programme over time. Make an annual assessment whether the objectives and targets were met, and provide a detailed analysis of why or why not.

#### Checklist

- *Planning meeting to decide on priorities in action plan.*
- *Planning meeting to define aims, objectives and targets.*
- *Make detailed analysis of strategies and critical assumptions.*
- *Planning meeting to decide which strategies provide greatest chance of success.*

#### Templates

- Time frame, costs and responsible persons(s) for each activity
- Gantt chart
- Planning spreadsheet
- LFA format for national VISION 2020 action plan

- *Determine for each activity the essential sub-activities.*
- *Place all sub-activities in the correct chronological order.*

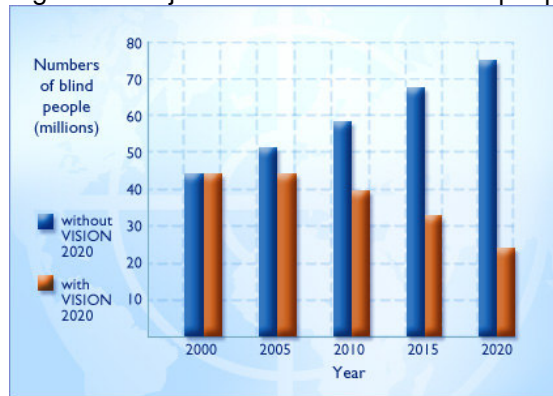
*For each sub-activity, indicate the responsible person(s), the start and completion times, and the cost.*

## Chapter 3 Priorities and objectives – What do we want to achieve?

### 3.5 Specific disease control strategies

Five preventable or treatable conditions (cataract, refractive errors, trachoma, onchocerciasis, and vitamin A deficiency) are responsible for 80% of global blindness. For each of these conditions, a well-tested and cost-effective intervention exists. If priority is given at the global level to improving eye-care services for neglected communities and to targeting these five diseases, it is calculated that the projected 76 million blind people can be reduced to 24 million by 2020. (Figure 8) This is the first priority for VISION 2020.

Figure 8. Projections of number of blind people without and with VISION 2020



Diabetic retinopathy and glaucoma have also been included in this CD under disease control strategies, since low vision and blindness due to these two diseases is increasing – even in developing countries. However, well-tested and cost-effective interventions are not yet available for large-scale application.

The sequence in which the various disease control strategies are discussed here differs from that of other VISION 2020 documents, because not all countries have cases of trachoma and onchocerciasis. Also, refractive errors and low vision have been divided into two separate categories, since these require rather different approaches.

In the following discussion, cataract is used to illustrate how the planning process for an individual disease intervention can be approached. Similar approaches can be used for other disease interventions

#### Documents

- VISION 2020 – control of major blinding diseases and disorders
- Vision 2020 priority eye diseases

#### Available from WHO

- Strategies for the prevention of blindness in national programmes

#### Web sites

- Cochrane Eyes and Vision Group
- Other Cochrane links
- Association of Vision Science Librarians

## Chapter 3 Priorities and objectives - What do we want to achieve?

### 3.5.1 Cataract

Cataract – a clouding of the crystalline lens of the eye – is prominent as the first priority among the major causes of blindness. Today, an estimated 20 million people are blind from this condition. Cataracts are not generally amenable to prevention, but currently-available surgery can restore near normal vision in a large proportion of the cataract blind.

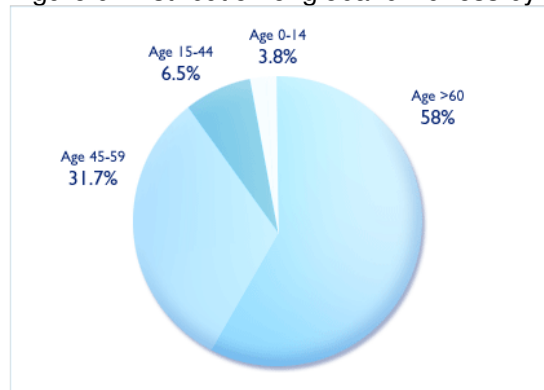
The number of operations per million population per year (Cataract Surgical Rate, or CSR) is a useful measure of the delivery of eye care in various settings. There is currently a wide variation in the CSR from country to country and even within countries, ranging from an estimated 5000 in the USA to approximately 200 in the whole of Africa.

In poorer countries, financial and cultural barriers often limit access to surgical services even when they are available. In addition, productivity in terms of surgical services is low. It is envisaged that under VISION 2020 there will be a marked increase in the number of cataract surgeries performed, particularly in the developing world.

#### **Why is cataract increasing so rapidly?**

Approximately 85% of all cataract is age-related, the cause of which is unknown. The other 15% are the result of a variety of known causes. By definition, the prevalence of age-related cataract increases with age and, ultimately, everyone in their nineties will be affected. (Figure 9) Cataract also increases with age in developing countries – but often earlier in life and to a greater extent.

Figure 9. Distribution of global blindness by age group



Between 2000 and 2020, the world's population is estimated to increase from 6.08 to 7.52 billion. This growth will occur mainly in developing countries.

During the same period, the number of people aged 65 years and older is estimated to increase from 425 million to 677 million globally. In the World Bank regions of China, India, Latin America and the Caribbean, the Middle Eastern Crescent and other Asia and islands, the population aged 65 years and older will double during this period. (Figure 10) While the number of cataract operations is increasing in most countries, this is not enough to compensate for the rise in incidence due to the 'ageing' of the population.

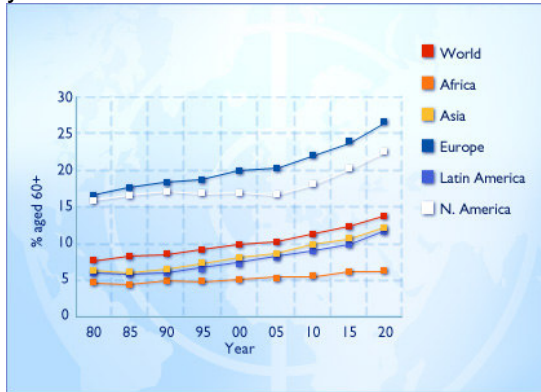
#### Documents

- A simplified cataract grading system
- Cataract surgery with intraocular lens implantation in Africa
- Report of the informal consultation for research developments on solar UV-radiation and cataractogenesis
- The management of cataract within primary health care system

#### Articles

- Cataract blindness – challenges for the 21<sup>st</sup> century
- Randomised controlled trial of anterior-chamber intraocular lenses in Nepal: long-term follow-up
- VISION 2020: the cataract challenge
- Cost-effectiveness analysis of cataract surgery: a global and regional analysis
- Cataract blindness – the African perspective
- Surgical interventions for age-related cataract – Cochrane review
- Commentary on cataract systematic review

Figure 10. Ageing trend 1980-2002 – percentage of world population aged 60 years and older

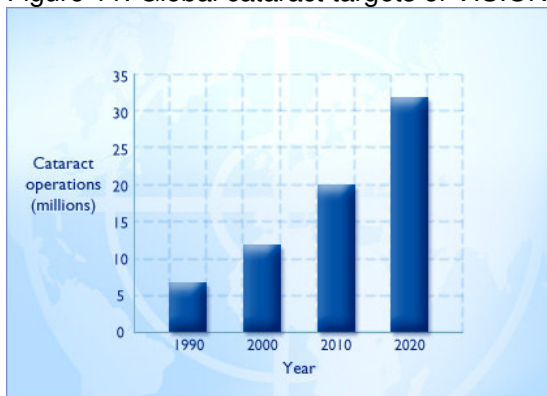


Due to modern surgical techniques with IOL implantation, cataract patients currently undergo operations at a much earlier stage than before. This has led to a threefold to fourfold increase in cataract surgery in a number of industrialized countries. As extracapsular cataract extraction with IOL implantation also becomes available in more developing countries, this will have huge implications for the number of needed operations.

***What are the VISION 2020 objectives for cataract intervention?***

In global terms, it will be necessary to increase the currently estimated 7 million annual cataract operations to 12 million in the year 2000 and to 20 million in 2010. By the year 2020, the final target should be 32 million cataract surgeries annually (figure 11). That would require a CSR of at least 3000 in India and other countries in South-East Asia, and at least 2000 in Africa and those other parts of the world which have fewer elderly in the population.

Figure 11. Global cataract targets of VISION 2020



In addition, VISION 2020 places emphasis on achieving:

- high success rates in terms of restored vision and quality-of-life outcomes;
- affordable and accessible services, especially for underserved populations; and
- measures to overcome barriers and increase the use of services.

The strategies to be employed include concerted teamwork, training, better management, and monitoring and evaluation of services.

## Chapter 3 Priorities and objectives – What do we want to achieve?

### 3.5.2 Refractive errors

Refractive errors can be divided into three major groups:

- people over 40 years of age with presbyopia (difficulty in near vision and reading)
- myopia
- uncorrected aphakia (eyes with lenses removed and not replaced by IOL or spectacles).

The global magnitude of refractive errors is not reliably known, as there is great variation in groupings according to age, definitions of blindness, and examination methods. Reports suggest that 5–25% of blindness in some countries is caused by refractive errors and as much as 4% of the population sees less than 6/18 (20/60, 0.33) because of this condition. Correction of significant refractive errors requires a well-trained refractionist and access to affordable and good-quality spectacles.

*Presbyopia* may be easiest to solve through bulk purchase of standard spheric reading spectacles. The costs of such spectacles are low and in most cases full refraction is not required.

*Myopia* usually develops at the age of 10–15 years. Intervention should focus on screening children in this age group using a simple test for refractive errors. Those who fail the test should be referred for refraction and provided with spectacles. Large-scale screening may increase awareness of refractive errors and motivate parents and grandparents to come forward for testing as well. Increasing demand for spectacles may also promote the development of more optical services.

*Uncorrected aphakia* is unfortunately still a frequent cause of blindness or low vision. Provision of aphakic glasses is an essential component of cataract intervention.

Training of refractionists and the development of affordable and good quality optical services should be an essential component in most VISION 2020 action plans.

#### Documents

- Elimination of avoidable visual disability due to refractive errors
- How to make spectacles at low cost
- Low vision care for the elderly – report of a workshop
- Consultation on development of standards for characterization of visual loss and visual functioning
- Different measurement systems for visual acuity

#### Articles

- Refractive error blindness
- The role of optometry in VISION 2020
- Refractive errors: magnitude of the need
- Vision testing for refractive errors in schools
- Spherical refraction for general eye workers
- The challenge of providing spectacles in the developing world
- Case finding for refractive errors: assessment of refractive error and visual impairment in children
- Case finding in the clinic: refractive errors
- Case finding in the community: experience of Jatiya Andha Kallyan Somiti in Comilla, Bangladesh

## Chapter 3 Priorities and objectives – What do we want to achieve?

### 3.5.3 Childhood blindness

Childhood blindness is one of the main priorities in VISION 2020 for the following reasons:

- causes of blindness in children differ from those in adults and require different strategies;
- delay or absence of treatment in the early stages leads to conditions which are not treatable or not easily treatable in adults, such as amblyopia;
- treatment requires specific training, knowledge, skills, and equipment;
- the number of 'blind years' in children is much greater than blindness occurring in adults.

There are an estimated 1.5 million blind children in the world, of whom approximately 1 million live in Asia and approximately 300 000 in Africa. Each year, an estimated half a million children become blind, of whom up to 60% die in childhood.

Childhood blindness is caused mainly by vitamin A deficiency, measles, conjunctivitis in the newborn, congenital cataract, and retinopathy of prematurity (ROP). ROP is an established problem in developed countries because of the ever-increasing survival rate of low- and very low-birth-weight infants. For the same reason, it is also emerging as a problem in economically-developing parts of the world, especially in urban settings. Other causes of childhood blindness are congenital or genetically determined. It should be noted that the causes of childhood blindness vary from country to country and over time.

Because of the wide range of causes of childhood blindness, intervention must be disease-specific and directed at more than one level of the eye-care delivery system. Accordingly, vitamin A deficiency and measles, treatment of simple eye infections, prevention of corneal trauma, and immunization are best managed at the primary level. Relevant activities should be integrated with existing maternal and child health programmes, immunization programmes, and other community- directed health services.

Management of ocular injuries and corneal ulcers, and the provision of spectacles, take place at the secondary level. Prevention of ROP, surgical treatment of eye conditions, and provision of optical devices all take place at the tertiary level. Close cooperation with other specialists, such as neonatologists and paediatricians, is essential.

One of the objectives set by the World Summit for Children in 1990 was to eliminate blindness resulting from vitamin A deficiency by the year 2000. This objective has been achieved in some countries. However, there are still 78 countries where vitamin A deficiency remains a public health problem.

If no valid survey data on vitamin A deficiency are available, a fairly accurate estimate can be based upon the under-5 mortality rate. This alternative has been included in the "Planning spreadsheet".

#### Documents

- Preventing blindness in children
- A five-year project for the prevention of childhood blindness
- Sight and Life manual on vitamin A deficiency disorders
- The child, measles and the eye

#### Slide sets

- Slides on vitamin A deficiency disorders
- Explanation on slide set of vitamin A deficiency disorders

#### Articles

- Childhood blindness in the context of VISION 2020: The Right to Sight
- New issues in childhood blindness
- Prevalence of vitamin A deficiency in children aged 6–9 years in Wukro, northern Ethiopia
- Is Credé's prophylaxis for ophthalmia neonatorum still valid?
- Indicators for assessing vitamin A deficiency and their application in monitoring and evaluating intervention programmes
- The increasing problem of retinopathy of prematurity
- Intraocular lens implants in children
- The importance of primary eye care (JCEH, Issue 26)

#### Web sites

- Deafblindness Resources on the Net

**Templates**

- WHO Childhood Blindness Form
- Coding instructions for WHO Childhood Blindness Form
- Estimating childhood blindness from under-5 mortality rates
- Planning spreadsheet

**Available from WHO**

- Vitamin A supplements: a guide to their use in the treatment and prevention of vitamin A deficiency and xerophthalmia
- Vitamin A deficiency and its consequences: a field guide to detection and control

## Chapter 3 Priorities and objectives - What do we want to achieve?

### 3.5.4 Low vision

The following two definitions for low vision are used:

- (WHO) Low vision is visual acuity less than 6/18 and equal to or better than 3/60 in the better eye with best correction.
- (Low Vision Services or Care) a person with low vision is one who has impairment of visual functioning even after treatment and/or standard refractive correction, and has a visual acuity of less than 6/18 to light perception, or a visual field less than 10 degrees from the point of fixation, but who uses, or is potentially able to use, vision for the planning and/or execution of a task for which vision is essential.

Data from the 1994 update of *Available data on blindness* suggest that the prevalence of low vision is about three times the prevalence of blindness. In 2000, WHO estimated that approximately 135 million people had low vision (VA < 6/18 – 3/60 with best correction). This figure is expected to double by the year 2020, due to the rapid growth of the elderly population. An estimated 75% of these people may be helped with cataract surgery and/or correction of refractive errors. The remaining 25–35 million people have eye conditions or diseases that are either incurable (e.g. age-related macular degeneration, albinism), or diseases that – even after treatment – may leave vision reduced (e.g. congenital cataracts, diabetic retinopathy). These constitute the ‘true’ low-vision cases that need low-vision care.

Low-vision services meet the needs of a person with low vision in many different situations, and may be delivered by personnel with varying professional backgrounds. Low-vision care cannot be offered in isolation, and should be part of comprehensive eye services. Another important function of these services is to act as a bridge between medical, rehabilitative, and educational programmes.

Low-vision services can be offered at primary, secondary, and tertiary care levels.

At the primary level, these services involve screening of vision, assessment of functional vision, referral to eye care, and simple advice on environmental modification and non-optical interventions. At the secondary level, these services are offered as part of refractive services and involve assessment of vision, correction of refractive errors, and prescription of optical and non-optical devices. Trained ophthalmic technicians, ophthalmic medical assistants, ophthalmic clinical officers and refractionists offer these services. At the tertiary level, services include specialized low-vision care and involve assessment of visual functions, refraction, prescription of optical, non-optical and electronic devices, training in visual skills, and use of devices.

It is estimated that 30% of people with low vision can be assisted at the primary level, 50% of the need can be met at the secondary level, while 20% will need tertiary-level care. Standard lists of equipment for each level of services are available.

The need for low-vision care in an area can be assessed from blindness surveys, surveys of schools for the blind, blind registries, and estimates of childhood blindness. The following approach is suggested: conduct a situation

#### Documents

- Asia Pacific regional low vision workshop
- Consultation and management of low vision in children in Bangkok
- Low vision care for the elderly – report of a workshop
- Assessment of low vision in developing countries – book 2

#### Articles

- The role of optometry in vision 2020
- Guidelines for setting up a low vision programme for children
- Community based rehabilitation: an introduction
- How can blind children be helped? (JCEH, Issue 27)
- Low Vision Care (JCEH, Issue 49)
- List of low vision devices

#### Web sites

- Low Vision Resource Centre, Hong Kong

analysis of the available human resources and infrastructure, as well as the local legislation on rights of and services for disabled persons; identify the gaps between needs and current services; and develop an action plan to bridge those gaps.

Where local expertise is limited, technical assistance could be requested to help with the development of a low-vision service. Low-vision devices can be produced locally at low cost, using appropriate technology and local materials. Such devices could also be acquired at low cost from partner Low Vision Resource Centres. It is equally important to increase awareness and to develop a good network of referrals, so that people in need of low-vision care can access and benefit from available services.

## Chapter 3 Priorities and objectives - What do we want to achieve?

### 3.5.5 Trachoma

Trachoma is endemic in 49 countries – mostly in Africa, but also in the Eastern Mediterranean, South-East Asia, and Western Pacific regions. It remains the most common preventable cause of blindness in the world, with an estimated 5.6 million people blind, visually impaired, or at immediate risk of blindness from the disease; an additional 146 million cases of active trachoma in need of treatment; and 500 million at risk of infection. Trachoma is common in areas of the world that are socioeconomically deprived of basic needs in housing, health, water, and sanitation.

A strategy known as “**SAFE**” (**S**urgery, **A**ntibiotics, **F**acial Cleanliness, and **E**nvironmental change) has been developed and is being applied in affected areas. It is expected that through the use of the SAFE strategy it will be possible to eliminate trachoma as a blinding disease by the year 2020.

The WHO Alliance for the Global Elimination of Blinding Trachoma (GET 2020) was established in 1997 to support the work of a broad spectrum of collaborating international organizations, non-governmental development organizations (NGDOs) and foundations. GET 2020 is included under the umbrella of VISION 2020.

In VISION 2020, five million trichiasis surgeries will be provided between the years 2000 and 2010. In addition, at least 60 million people with active disease will receive treatment during the same period.

The intervention strategy should focus on the following steps.

- Step 1. Identify communities with blinding trachoma through Trachoma Rapid Assessments (TRA).
- Step 2. Provide tarsal rotation surgery for patients with trichiasis – uptake is improved when surgery is provided in the village at no cost.
- Step 3. Reduce active disease and transmission of infection, particularly in children, through topical tetracycline or oral azithromycin. Various strategies can be used, from individual treatment of cases to mass treatment of an entire village population.
- Step 4. Encourage facial cleanliness in children through health education messages.
- Step 5. Improve the water supply and reduce fly density through improved community and family sanitation practices.

#### Documents

- WHA Resolution 51.11 of 16 May 1998 on global elimination of blinding trachoma
- Simplified trachoma grading
- Preventing Trachoma, a guide for environmental sanitation and improved hygiene
- Primary Health Care level management of trachoma
- Achieving community support for trachoma control
- Guidelines for trachoma rapid assessment
- Future approaches to trachoma control
- Trichiasis surgery for trachoma
- International training workshop on the assessment and management of trachoma for national coordinators
- Planning for the global elimination of trachoma (GET) – report of a WHO consultation
- Trachoma: a women’s health issue
- ITI: Zithromax in the control of blinding trachoma – a program manager’s guide
- Other trachoma manuals

#### Articles

- Corneal blindness: a global perspective
- The SAFE strategy for the elimination of trachoma by 2020: will it work?
- Field trial of applicability of lot quality assurance sampling survey method for rapid assessment of prevalence of active trachoma

- Efficacy of oral azithromycin versus topical tetracycline in mass treatment of endemic trachoma
- Pilot study of the use of community volunteers to distribute azithromycin for trachoma control in Ghana
- Training in trichiasis surgery
- Review article: Trachoma and water

**Slide sets**

- ICEH Trachoma teaching set - slides
- ICEH Trachoma – teaching set - booklet

**NGDOs in trachoma**

- By country
- By NGO

**Available from WHO**

- Guide to trachoma control in programmes for the prevention of blindness

**Web sites**

- WHO Global Elimination of Blinding Trachoma – GET 2020
- International Trachoma Initiative
- GET - Trachoma country profiles

## Chapter 3 Priorities and objectives – What do we want to achieve?

### 3.5.6 Onchocerciasis

Onchocerciasis, or river blindness, is endemic in 30 countries in Africa and also occurs in small foci in six Latin American countries and in Yemen. Currently, there are an estimated 18 million people who are infected with onchocerciasis. Among these, approximately 0.3 million people are already blind from this disease. The disease is expected to be brought under control by the year 2010 if present efforts in endemic countries are successfully completed.

An approach has recently been developed and introduced, whereby community-directed treatment with annual doses of ivermectin would make it possible to eliminate this blinding disease burden from the affected countries in Africa and Latin America. However, the increased numbers of patients needing treatment (many of whom are living in areas of conflict), and the duration of treatment (at least 20 years), are raising concern about whether the problem will be brought under control by 2010.

Over the last 25 years, considerable progress has been made by the Onchocerciasis Control Programme (OCP) in 11 countries in West Africa through both vector control and ivermectin distribution. This success, when expressed in health, economic and developmental terms, was the reason behind the launch in December 1995 of a new programme, the African Programme for Onchocerciasis (APOC) in 19 other African countries.

In Latin America, the Onchocerciasis Elimination Programme in the Americas (OEPA) is successfully using ivermectin distribution in six countries in Central and South America. A coordination group of NGOs is working closely with all three onchocerciasis control programmes and with national counterparts in virtually all endemic countries.

#### Documents

- Rapid Epidemiological Mapping of Onchocerciasis
- Guidelines for analysis of REMO data using GIS
- Strategies for ivermectin distribution through primary health care system
- Procedural manual for ivermectin distribution programmes
- VISION 2020 – onchocerciasis (river blindness)

#### Articles

- Can ivermectin mass treatments eliminate onchocerciasis in Africa?
- Onchocerciasis: impact of interventions
- Socio-economic consequences of blinding onchocerciasis in West Africa
- VISION 2020: update on onchocerciasis
- The case of ivermectin: lessons and implications for improving access to care and treatment in developing countries

#### Web sites

- The Carter Centre

## Chapter 3 Priorities and objectives – What do we want to achieve?

### 3.5.7 Glaucoma

Initially, glaucoma was not included as one of the priority conditions in the first five-year programme of the VISION 2020 Initiative. The reason for this omission was that there are no agreed strategies for detecting early or moderately advanced glaucoma, or for treating this disease in large populations within blindness prevention programmes.

There is now increasing evidence that the glaucomas may constitute the second cause of global blindness. New diagnostic methods are being tested, and progress is made in controlling some of the other major causes of blindness. Accordingly, countries where glaucoma is a major cause of blindness should include glaucoma intervention in their five-year strategy for VISION 2020.

#### Articles

- The global impact of glaucoma
- Editorial: the adult glaucomas
- What's new in primary open angle glaucoma?
- Advances in the understanding of primary angle-closure as a cause of glaucomatous optic neuropathy
- Secondary glaucomas: the task ahead
- Chronic glaucoma case finding and treatment in rural Africa: some questions and answers

## Chapter 3 Priorities and objectives - What do we want to achieve?

### 3.5.8 *Diabetic retinopathy*

Although only little prevalence data are available on blindness due to diabetic retinopathy, the worldwide process of ageing will increase the incidence. Improved health care facilities will increase the life expectancy of diabetic patients whereby more patients will require adequate screening and treatment to prevent complications like diabetic retinopathy. This increase in both incidence and reporting is likely to occur in developing as well as developed countries.

There is increasing evidence that adequate control of diabetes, in combination with regular screening and timely laser treatment, can prevent visual impairment in patients with diabetes. High costs of staff training, patient screening, and establishing laser treatment facilities currently prevent many governments from investing in controlling diabetic retinopathy. That situation may change as other major causes of blindness are brought under control.

#### Articles

- Diabetic retinopathy: clinical findings and management
- Epidemiology in practice: screening for eye disease

#### Available from WHO

- Prevention of diabetes mellitus

## Chapter 4 Planning disease intervention – using cataract as an example

### 4.1 How to plan cataract intervention in a district

This example follows the steps indicated in Chapter 2, Sections 2.1–2.4, but focuses exclusively on cataract intervention and planning for a district with a population of 100 000 to 2 million. In many countries this would be a region, a province, a state, or a number of districts grouped together. Here, however, this area is referred to as a district.

#### Assess needs

Collect data on cataract blindness from earlier population-based surveys or rapid assessments. If these sources are not available, consider conducting a survey or Rapid Assessment of Cataract Surgical Services. If that approach is not an option, data from nearby districts with similar socioeconomic characteristics and eye-care systems may be used. If these data are not available, extrapolations can be made from the World Blindness Reference Table or the World Blindness Reference Map.

The magnitude of the cataract problem depends on the level of visual acuity selected. Ideally, this should depend on the capacity of the cataract surgical facilities, the surgical techniques used, and the visual acuity threshold commonly used for surgery. This may be at VA<3/60, VA<6/60, VA<6/36, or even lower. If no specific prevalence rates are known for these VA levels, the spreadsheet “Calculate CSR” may be of help.

When only the prevalence of cataract blindness at VA<3/60 is known, the number of cataract cases at the other VA levels can be estimated. To control cataract blindness, at least the ‘incidence cases’ (i.e. the new patients becoming blind due to cataract each year) should undergo surgery. In the absence of reliable incidence figures, this is usually estimated as 20% of the prevalence.

Divide the required CSR by the number of cataract surgeons to calculate the required number of cataract operations per eye surgeon per year.

#### Example

*Required CSR: 3000 cataract operations per year by 5 cataract surgeons  
(3000 / 5 = 600)*

#### Assess present and past cataract surgery output

Collect data on the annual cataract output for all surgical centres in the district for the previous five years. Record the number of cataract operations performed by each hospital or eye clinic per month during the last year. For this purpose, the template “Spreadsheet for cataract output by eye unit” can be used. This will reveal seasonal trends (if any) and show the contribution of each unit. Analyse why certain units are more successful in case-finding and treatment than others, and how efficiency can be increased. Identify constraints, and design strategies to overcome them. The spreadsheet will also provide useful information for the distribution of future targets.

#### Example

*Present output 1000 cataract operations performed by 5 cataract surgeons  
(Current CSR: 1000 / 5 = 200)*

#### Available from WHO

- Management of cataract in primary health care services

#### Templates

- Spreadsheet for cataract output by surgical unit
- Example of detailed analysis of priorities for cataract action plan
- Example of Gantt chart for cataract
- Planning spreadsheet
- WHO/PBL Eye Examination Record
- Coding instructions for the WHO Eye Examination Record Form
- Situation analysis
- LFA format for national VISION 2020 action plan
- Calculate CSR

#### Software

- Rapid Assessment of Cataract Surgical Services (RACSS)

### **What are the human resources available for cataract surgery?**

Collect information on all human resources involved in cataract intervention in the

district, from case-finding and mobilization to follow-up visits. Divide the total cataract surgery output during the year by the number of surgeons operating on cataracts, to determine the average annual output per eye surgeon. The same approach can be applied to determine the number of patients referred for cataract surgery and the number of eye-care workers involved in case finding.

It can be useful for each cataract surgeon to indicate the maximum number of cataract operations that he/she can perform under ideal conditions each year. Dividing the present output by this maximum output gives an indication of the utilization of each surgeon. Maximum output minus present output indicates the extra possible output. Constraints limiting current surgical output should be listed, since activities to address these constraints could become action points in the VISION 2020 action plan.

#### **Example**

*Total cataract surgeons in district: 5, with 1 posted in health centre without operating theatre (OT).*

*Output under ideal conditions: 400 cases per cataract surgeon per year.*

*Constraints: posting of 1 surgeon, limited OT time, shortage of OT staff, few cataract sets.*

*Action to be taken: appropriate posting of cataract surgeon; add tables in OT to increase efficiency; train additional OT staff; buy extra cataract sets.*

### **What facilities and equipment are available for cataract surgery?**

Collect information on all surgical facilities and equipment available for cataract intervention, from case-finding and mobilization to follow-up visits. Calculate the cataract surgery output for each surgical centre over the past five years. It may be useful for each surgical centre to indicate the maximum number of cataract operations that they can perform each year. Dividing the present output by this maximum output gives an indication of the utilization of the centre. Maximum output minus present output indicates the extra possible output. Constraints, limiting current surgical output should be listed, since activities to address these constraints could become action points in the VISION 2020 action plan.

#### **Example**

*Maximum surgical output all centres: 2500 cataract operations per year.*

*Constraints: for three months per year, no operations performed because of the summer heat.*

*Action to be taken: provide air conditioning in the OT and fans in the wards to accommodate patients during the summer heat.*

*Elsewhere, the three months per year with no operations performed could be due to lack of essential medicines and consumables. Addressing such shortages in a sustainable manner would then be the most appropriate action to take.*

### **Situation analysis**

The data described in the previous paragraphs, collected by a small subcommittee, are then presented to the larger planning meeting in which all

parties involved in district eye care are represented. During the meeting, this group will scrutinize all data, constraints, and proposed remedial action. The meeting can be divided into small working groups, each analysing in detail a disease intervention, using the Situation analysis template provided.

**Example**

<i>Required output:</i>	<i>Total 3000 (600 operations per surgeon per year).</i>
<i>Present output:</i>	<i>Total 1000 (200 operations per surgeon per year).</i>
<i>Maximum output per surgeon:</i>	<i>400 operations per year, total 2000 per year.</i>
<i>Present utilization of surgeon:</i>	<i>200/400=50%</i>
<i>Constraints:</i>	<i>limited operation theatre (OT) time, shortage of OT staff, few cataract surgical sets</i>
<i>Action to be taken:</i>	<i>extra tables in OT; train more OT staff; buy extra cataract sets.</i>
<i>Maximum output all centres:</i>	<i>2500 cataract operations per year</i>
<i>Constraints:</i>	<i>low utilization during summer months</i>
<i>Action to be taken:</i>	<i>install air conditioning in OT and fans in the wards to continue operations during summer</i>

*The example above has been illustrated in the "Situation analysis" template.*

Set priorities, objectives, and targets for each year of the five-year plan. When the situation analysis has been completed, the list of constraints and proposed corrective action may be too large to tackle, or become too expensive.

At this point in the planning process, it is important to be realistic about the amount of extra work that can be undertaken and the amount of funding available. It may be tempting to submit a 'shopping list' for the latest ophthalmological technology; however, when the present utilization of cataract surgeons is 50%, improving their output to 90–100% capacity with more basic facilities is likely to have a much greater impact on blindness.

Activities having the highest impact on cataract blindness – for the lowest cost in funds and resources – should be given priority in the action plan. In addition, activities with high visibility and public approval should be included. Especially for new programmes, this will increase public support and thereby strengthen the commitment and support of the district government.

Objectives, activities, sub-activities, starting and completion dates, responsible persons, methods for measuring progress, and costs can be entered in the planning format. (See example LFA format)

Determine whether the various tasks and responsibilities are well-distributed and will not overburden particular people. Overambitious plans often result in essential tasks not being completed in time and objectives not being met.

Finally, all sub-activities and their starting and ending times should be entered into a Gantt chart. This will show whether activities and sub-activities are planned in the right time sequence and well distributed over time.

### **How to plan at the country level**

When the survey of cataract interventions for all districts has been completed, enough data will be available to facilitate realistic national planning. The national plan should focus on management of the programme, and maintain regular contact with districts.

The areas of focus of the national plan should be the optimal utilization of available resources, adequate recruitment, and posting of staff – with special attention to underserved areas, training of existing and new staff, adequate provision of equipment and supplies, treatment policies, routine monitoring of cataract outcome, and management of information systems.

## Chapter 4 Planning disease intervention – using cataract as an example

### 4.2 What human resources development is needed for cataract?

#### Optimal utilization of staff

When staff are not utilized optimally, detailed analysis is required to identify the possible constraints. In most countries, shortages – as well as inappropriate distribution and inadequate training of surgical staff – are often the major constraints to optimal staff utilization. In the absence of a clear staff deployment and motivation policy, inappropriate distribution of personnel is extremely difficult to tackle. As a result, training of additional staff may still be required to meet the needs of the most underserved areas. Making the best use of existing staff, however, must always be considered as the first (and least costly) option. To that end, staff skills must be assessed and upgraded through appropriate retraining programmes.

To optimize staff distribution, non-essential and administrative tasks can be delegated to non-medical personnel. Attempts can be made to ensure that eye-care staff are assigned in places where they can implement their special knowledge and skills. A motivated workforce is one result of an effective policy for recruitment, deployment, and use of trained eye-care personnel in the district – especially in underserved areas that are often perceived as ‘punishment posts’.

#### Standardization and delegation

Standardization of procedures and equipment will increase efficiency, reduce costs and downtime of equipment, and lead to better quality of care. Using specially-trained staff for in-house repair and maintenance of equipment will reduce costs and downtime and extend the lifetime of expensive ophthalmic instruments. Delegating routine diagnostic tasks to specially-trained paramedical staff will increase efficiency and save the ophthalmologist time.

#### Training

Adequate and relevant training for all staff members will maintain and upgrade their skills and knowledge, increase their motivation, and boost their careers. If the training capacity is not sufficient, it will need to be expanded.

#### Community participation

Local communities can participate in outreach and eye-care activities and thereby increase output and relieve eye-care staff. Many countries have had good experiences with field workers from community-based rehabilitation (CBR) programmes, in identifying visually-impaired people in the community. These people are then examined by ophthalmologists, to determine which ones require clinical treatment and which ones need rehabilitation and low-vision care. CBR volunteers can also help to organize local screening camps, and accompany patients to the hospital for surgery.

#### Positive work culture

Crucial to the success of all these activities are a positive work culture, a positive attitude by all staff members, and a leadership that involves all staff in decision-making.

#### Documents

- WHO list of training aids (1995)

#### Available from WHO

- Management of cataract in primary health care services

#### Articles

- Human resource development
- Surgical techniques for a good outcome in cataract surgery: personal perspectives
- Community based case-finding and rehabilitation: detection of cataract patients and post-operative follow-up

#### Templates

- Time analysis format

#### Web sites

- Aravind Eye Hospitals, India: VISION 2020 e-resource
- L.V. Prasad Eye Institute, India

## Chapter 4 Planning disease intervention – using cataract as an example

### 4.3. What infrastructure development is needed for cataract?

Eye-care staff can only perform optimally when they have the necessary facilities, including buildings, operating theatres, transport, diagnostic and surgical equipment, and adequate supplies.

The surgical capacity of the facility depends on its opening hours, the number of beds available for cataract surgery, and the average length of inpatient stay. Reducing inpatient stay will increase capacity. Internal efficiency, which can minimize waiting time, is critical for reducing inpatient stay. Waiting time can even be reduced in the OT, by adding extra tables, additional nursing staff, and more cataract sets.

#### Documents

- Standard list of ophthalmic equipment (2004–2005)
- Check for latest Standard list

#### Articles

- An audit of the use of ophthalmic theatre time
- Productivity: getting cataract patients 'through and out'
- Table: increasing cataract output by adding staff, OT tables and instrument sets

## Chapter 4 Planning disease intervention – using cataract as an example

### 4.4 How to provide good cataract services

The patient's view of eye-care can be very different from the health worker's view. Neither view is right or wrong, but an awareness of these two views can help to optimize care. To ensure optimal utilization of surgical facilities, patients must be satisfied with the care they have received. Regular interviews with patients on various aspects of the cataract services provided to them, will reveal both complaints and suggestions as to how to improve services. Addressing these complaints will usually result in an increase in utilization of the eye-care services.

When patients who are blind due to cataract are asked why they have not undergone operations to date, many report fear of not regaining sight after surgery. This fear is supported by a number of population-based surveys which reported that 25–50% of operated eyes without an IOL and 10% of those with an IOL could not see 6/60 (40/400, 0.10) at various periods after surgery. Adequate optical correction could reduce by a third this group with poor outcome. Routine monitoring of cataract outcome will make eye surgeons more quality-conscious and may highlight areas where a change in procedure could result in better cataract outcome.

#### Documents

- How can we improve patient care?
- The patient's view: How can we improve patient care?
- Patient's perspective: an important factor in assessing patient satisfaction

#### Articles

- Sutureless non-phaco cataract surgery: a solution to reduce worldwide cataract blindness?
- Sutureless cataract surgery: principles and steps
- Sutureless cataract extraction: complications, management and learning curves
- Clinical trial of manual small incision surgery and standard extra-capsular surgery

#### Template

- Monitoring of cataract outcome with tally sheet

## Chapter 4 Planning disease intervention – using cataract as an example

### 4.5 How to provide patient and community education

Lack of awareness, as well as traditional customs and beliefs, often cause anxiety and misplaced apprehension in patients. Doctors usually do not have enough time to explain all details to them. Ophthalmic nurses or specially trained counsellors have more time and are closer to patients, and can therefore answer their questions about the surgical procedure, costs, medication, etc. Reports indicate that counselling can effectively remove anxiety and apprehension and increase the uptake of cataract surgery. Feedback from counsellors may also lead to modifications in procedures to increase patient satisfaction.

Other measures worth considering are the use of well-designed, culturally-appropriate and field-tested information, education, and communication (IEC) material and the use of mass media (in particular the radio – often the only mass medium available to rural populations).

#### Documents

- Awareness of eye diseases in an urban population in southern India
- Changing trends in barriers to cataract surgery in India
- Recognising and reducing barriers to cataract surgery
- Gender and use of cataract surgical services in developing countries
- The role of patient counsellors in increasing the uptake of cataract surgeries and IOLs
- Collaboration with African traditional healers for the prevention of blindness

## Chapter 4 Planning disease intervention – using cataract as an example

### 4.6 How to monitor and evaluate district cataract intervention

The district executive committee should establish a system of regular reporting on cataract output by each surgical facility in the district. How often should this be done? Once a month would be ideal, but is hardly practical. In many rural settings, every three months is often the best compromise. Whatever the case, it is important to remember that too many or too frequent requests for data often result in fewer rather than more reports being returned.

The information monitored should include the number of cataract operations, the proportion of operations with IOL implantation, and the number of cataract surgeons per unit. The cumulative data for all surgical centres in the unit can be compared with the targets for the year and the output before the intervention started (baseline data). When norms for the number of cataract operations per surgeon and/or per unit have been set, the utilization of services and performance against the local norm can also be assessed.

Units performing better or worse than the norm should be asked for the reasons for this performance level, as such information may reveal successful strategies and possible constraints which are important for increasing future cataract uptake. Such regular monitoring will also reveal any seasonal trends and which units are most affected by these.

The district prevention of blindness or VISION 2020 committee should evaluate the reports on cataract performance at each meeting and assess progress against objectives and targets. It is advisable to send an annual questionnaire on human resources, infrastructure, and equipment to all surgical units in the district to keep the records updated.

It is not enough to monitor only the number of cataract operations. Cataract output should always be compared with the local needs for cataract surgery. A better indicator to measure the status of cataract intervention is the Cataract Surgical Coverage – the proportion of cataract eyes operated upon. This indicator can only be collected through population-based surveys or a rapid assessment (RACSS). When repeated after 4–7 years, RACSS is an excellent tool to measure progress (coverage) and impact (visual outcome) over time.

VISION 2020 now considers routine monitoring of cataract outcome mandatory for all surgical units. Outcome monitoring and data analysis should be done independently by each institution, using any of the currently available packages.

#### Articles

- JCEH, Issue 44 on cataract outcome monitoring
- Monitoring visual outcome of cataract in India
- Cataract surgery outcomes: a priority agenda item
- Does prospective monitoring improve cataract surgery outcomes in Africa? – Abstract

#### Template

- Monitoring of cataract outcome with tally sheet

#### Software

- Spreadsheet for cataract output by surgical unit

## Chapter 4 Planning disease intervention – using cataract as an example

### 4.7. How to ensure sustainability

In the absence of effective prevention and sustainable ongoing surgical services – as contrasted with one-time campaigns – programmes must deal with the increasing problem of cataract blindness. Sustainability implies the ongoing availability of adequate resources – people and funds – and is dependent on the following elements:

- organizational structure which is able to make decisions when indicated
- culture of cost-consciousness
- optimal utilization of staff, infrastructure, and equipment
- utilization of community resources
- disciplined purchase policies
- cost-sharing programmes.

In many countries, eye care – especially cataract intervention – is becoming a major part of the total health cost. Someone has to pay for this care – governments, health insurance companies, patients, or donors. The cost of cataract intervention is made up of various components such as the cost of consumables, salaries, overheads, and depreciation of the infrastructure, equipment, and instruments. In addition, indirect costs incurred by the patient include transport, time lost from work, food, and accommodation.

To achieve sustainability, the costs of cataract surgery should be kept as low as possible without jeopardizing the outcome of the surgery. Approaches to keeping costs low include the following.

- **Bulk purchase of consumables**  
Consumables such as IOLs, sutures, surgical instruments, and ophthalmic drugs can be purchased at the national level to reduce costs and administrative work for districts. Possibilities for local production of eye drops, drugs, spectacles, and perhaps even IOLs and sutures, should also be explored.
- **Optimal utilization**  
The best possible use of human resources and facilities can minimize costs of salaries, overheads, and depreciation.

#### Articles

- Financial sustainability
- Cost containment in eye care
- Importance of affordable eye care

## Chapter 5 Implementation and management – How will we accomplish our goals?

### 5.1 How to build a team and motivate personnel

At the national level, involve representatives of all partners, from the outset, in the preparation and design of the VISION 2020 action plan. Presentations by each partner on what they can contribute to VISION 2020, or a visit to their office or hospital, will be informative. It is important to create an atmosphere of trust and confidence, and to implement VISION 2020 as a team. Whenever possible, the main duties and responsibilities of each VISION 2020 key partner should be described in the national plan.

Similarly, at the district level, involve representatives of all partners, from the outset, in the preparation and design of the VISION 2020 action plan. Write clear action plans with achievable objectives and realistic targets. Divide all tasks and responsibilities equally among all partners, to ensure their involvement. Document their achievements and innovative or special activities. Use training opportunities and presentations at workshops or conferences as incentives for well-performing staff members. Recognize people who perform well. If things go wrong, analyse the reasons why and determine the lessons that can be learnt.

Essential factors for successful programme implementation are:

- develop a skilled and efficient technical team
- create a small and efficient management team
- create a transparent and clear management structure that facilitates coordination between all partners.
- ensure timely procurement, distribution, and delivery of medical and surgical supplies and equipment
- ensure timely disbursement of funds to various project areas
- meet regularly and always be approachable
- enable effective communication – poor communication leads to misunderstanding and mistrust and disrupts the team.

'Ultimately, all depends on people'.

#### Checklist

- *Involve all partners in development of action plan.*
- *Write clear action plans with achievable objectives and realistic targets.*
- *Provide list with tasks and responsibilities to all team members.*
- *Provide ample possibilities for communication.*
- *Provide ample possibilities for professional development.*

#### Documents

- Training and educational materials for blindness prevention
- Directory of teaching and information resources for blindness prevention and rehabilitation
- Eye care training programmes

## Chapter 5 Implementation and management – How will we accomplish our goals?

### 5.2 How to build partnerships

Experience shows that coordination and cooperation result in better utilization of available eye-care facilities and avoid duplication of efforts, and that the promotion of eye care leads to more work for all parties involved. Partnership can also be sought with national or international nongovernmental development organizations, to provide additional expertise and support.

Outside assistance is never endless. Therefore, partnerships should also be used to develop sufficient clinical, managerial, and financial capacity to continue the work independently in the future. Balanced and tactful leadership is critical for such development, and should be an essential requirement for any prospective programme manager or national coordinator.

#### **Regional offices of the World Health Organization**

- World Health Organization regional offices

#### **Regional offices of International non-governmental development organizations**

- Sight Savers International
- Christoffel Blinden Mission (CBM)
- International Trachoma Initiative
- Helen Keller International
- IAPB Regional Offices
- Fred Hollows Foundation
- Operation Eyesight Universal
- World Council of Optometry Regional Offices
- ORBIS Offices

## Chapter 5 Implementation and management - How will we accomplish our goals?

### 5.3 How to create demand

In many developing countries, only a fraction of patients in need of eye-care services actually comes forward to make use of these services. This is not entirely due to lack of resources.

Social marketing is the process of generating demand for health-care services in the community from those who need health interventions but are not seeking them. In order to generate this demand, it is important to understand the current perceptions about disease, services, and the barriers that prevent people using the services. Perceptions and barriers may vary by disease and place. In the links under “Articles”, a detailed example is given of social marketing for cataract services in India.

Eye-care services in the district should be assessed for:

- availability (distance from patients)
- accessibility (transport facilities, open to all?)
- affordability (costs)
- acceptability (quality of care, approach to patients).

Even when all of the above conditions are met, lack of awareness and current health behaviour may prevent patients from seeking timely care. Qualitative analysis of possible barriers to accessing eye-care services, as provided in the RACSS package, will provide the understanding needed to design and conduct effective social marketing campaigns.

When planning for social marketing, use the following steps and strategies.

1. Define priority areas (e.g. cataract, eye-screening in schools, xerophthalmia). As resources are limited, be realistic in deciding on priorities.
2. Define priority populations (e.g. rural poor, children). This is partly determined by the disease intervention and availability of resources.
3. Community involvement.
4. Design case-finding and clinical service delivery strategies that reflect priorities, and consider barriers. Examples of such strategies are:
  - case-finding through diagnostic camps and village volunteers
  - CBR staff case-finding and referral
  - village health committees in trachoma control
  - involvement of local communities in all outreach activities
  - use of aphakic patients (‘satisfied customers’) for promotion
  - use of counsellors for patient education
  - provision of free food and/or free transport to and from hospital.
5. Monitor patient involvement and satisfaction.

#### Checklist

- *If local use of eye-care services is low:*
  - *make detailed analysis of availability, accessibility, affordability, and acceptability of current eye-care services*
  - *understand perceptions about eye disease*
  - *understand perceptions about eye care services*
  - *understand barriers to accessing eye-care services.*

#### Articles

- People who don't use eye services: 'Making the invisible visible'
- Awareness of eye diseases in an urban population in southern India
- Changing trends in barriers to cataract surgery in India

- *Design strategy reflecting priorities and addressing identified barriers.*
- *Monitor patient satisfaction and utilization of services.*

## Chapter 5 Implementation and management – How will we accomplish our goals?

### 5.4 How to manage a district-level VISION 2020 action plan

Once the district VISION 2020 action plan has been formulated, copies of the plan should be provided to all stakeholders and allied parties. Medical and administrative staff who will manage the programme should be appointed and briefed on their responsibilities. A workshop with the entire team would be useful, to discuss the tasks and responsibilities of each team member and lines of communication. Special training, such as computer training for individual team members, may also be required.

Activities should be initiated according to the timetable or Gantt chart in the action plan, and be completed within the given time frame. Deviations from the action plan should be kept to a minimum. The executive committee should meet once weekly to discuss ongoing activities and incoming reports. Timely reporting on activities and monthly performance is essential to assess whether or not the achievements are according to plan. Any deviations from the plan should be reported to the district VISION 2020 committee and remedial action should be taken.

The development of a management information system for eye care should be initiated at the outset of the programme, to facilitate adequate monitoring and evaluation of programme activities.

During the initial phase, the programme must rely on resources available in the district, making it essential that these resources are used optimally. Training programmes for primary eye care and community-oriented activities should be started at an early stage, in order to ensure participation and involvement of the community. Training of mid-level eye-care staff should commence only when adequate resources – such as training facilities, training materials, and ophthalmic equipment – are available.

A reliable system for the supply of drugs and other ophthalmic supplies should be developed and implemented for each level of eye-care delivery. Extra care should be taken to ensure that these supplies also reach units in underserved areas.

At the end of the first year, the district VISION 2020 committee should evaluate progress, and decide whether to continue with the existing plan or to include minor modifications. An annual report – with details concerning output, output against targets, human resources, infrastructure and equipment, and expenditure – should be prepared.

#### Documents

- Formulation and management of national programmes for the prevention of blindness: suggested outlines

## Chapter 5 Implementation and management – How will we accomplish our goals?

### 5.5 How to monitor and evaluate a VISION 2020 action plan

There are two main purposes to monitoring and evaluation in the VISION 2020 context.

The first is to help all partners – governments, IAPB, WHO, and other stakeholders – to track progress towards the strategic objectives and the principal intermediate objectives that are outlined in national and district VISION 2020 plans. These objectives are established and quantified on the basis of four five-year plans and updates. Regular monitoring will guide national and district planners in their evaluation and fine tuning of the plan and its implementation, so that they can remain directed towards achieving their VISION 2020 objectives.

The second purpose is to raise awareness – at an international level – of the problem of global blindness. By presenting to the international community data concerning the work and progress in the field of eye care, the burden of and solutions to this health problem become more obvious. Additionally, successes in one country can be used as models by another.

In order to effectively monitor trends and progress towards the achievement of established objectives, it is necessary to have a set of common core indicators for use at several levels – global, regional, national, and district.

To standardize data collection and make monitoring more effective, a WHO working group, supported by the VISION 2020 task force, was convened in June 2002 for the purpose of developing a framework and indicators for monitoring VISION 2020. This document has now become the basis for a series of data collection tools which are available to regional, national, and district eye-health officers.

Ultimately, data collected through the use of these tools will be made available through internet facilities. Please contact directly the VISION 2020 office at WHO for more information regarding use of the data collection tools and publication of the results.

#### Documents

- A framework and indicators for monitoring VISION 2020: The Right to Sight
- Informal consultation on analysis of blindness prevention outcomes

#### Articles

- JCEH, Issue 44 on cataract outcome monitoring

#### Template

- Monitoring of cataract outcome with tally sheet

#### Software

- Rapid Assessment of Cataract Surgical Services (RACSS) manual and software

## Acknowledgements

The VISION 2020: The Right to Sight Initiative acknowledges the contributions of the following individuals and organizations to this second edition of *Developing an Action Plan to prevent blindness at national, provincial and district levels*:

- Dr Hans Limburg, Consultant, International Centre for Eye Health (ICEH), London, for the preparation of the original text and compilation of the documents and their links.
- Ms Sally Parsley and Ms Ann Naughton, ICEH, London, for the production of the CD master.
- The International Agency for the Prevention of Blindness (IAPB), Hyderabad, India, for the duplication and distribution of the CDs.
- The World Health Organization (WHO) Prevention of Blindness and Deafness unit (PBD), for the revision and editing of the main text.
- The WHO Translation Services, for the translation of the main text into French, Spanish and Arabic.

Editorial committee for the second edition:

Dr Daniel Etya'ale, VISION 2020 Coordinator for Africa, WHO, Geneva  
Professor Allen Foster, ICEH, London School of Hygiene and Tropical Medicine, London  
Dr Ivo Kocur, VISION 2020 Global Coordinator, WHO, Geneva  
Dr Ramachandra Pararajasegaram, Consultant, WHO, Geneva  
Dr Serge Resnikoff, Coordinator, Prevention of Blindness and Deafness, WHO, Geneva  
Dr Gullapalli N. Rao, Chief Executive Officer, IAPB, Hyderabad, India

The authors and editors wish to express their thanks to all who provided materials and relevant web sites for inclusion in this CD.

We would appreciate your comments on this CD-ROM and welcome suggestions for other relevant documents or web sites to be included. Your comments will help to improve future versions of this CD-ROM. We would appreciate receiving a copy of your VISION 2020 action plan.

Please send your comments to:

World Health Organization  
Prevention of Blindness and Deafness  
1211 Geneva 27  
Switzerland  
Tel +41 22 791 27 59  
e-mail: [pbd@who.int](mailto:pbd@who.int)

or to:

VISION 2020 - The Right to Sight  
International Centre for Eye Health  
London School of Hygiene and Tropical Medicine  
Keppel Street  
London, WC1E 7HT  
Tel: + 44 207 927 2974  
e-mail: [info@v2020.org](mailto:info@v2020.org)

Requests for additional copies should be sent to:

International Agency for the Prevention of Blindness

L V Prasad Eye Institute

L V Prasad Marg

Banjara Hills

Hyderabad 500 034

India

Tel: +91 (40) 2354 5389

e-mail: [iapb@lvpei.org](mailto:iapb@lvpei.org)

## **Annex 1. Help**

VISION 2020: The Right to Sight: Developing an Action Plan CD-ROM, Technical specifications and Instructions for use

1. Minimum system requirements to use the “VISION 2020: The Right to Sight: Developing an Action Plan” CD-ROM;
2. Using “VISION 2020: The Right to Sight: Developing an Action Plan” CD-ROM;
3. Copying “VISION 2020: The Right to Sight: Developing an Action Plan” CD-ROM to your hard drive;
4. Useful Software: Mozilla 1.3.1 & Adobe Acrobat Reader™ 5.05 & 6.0;
5. Feedback and further technical support;
6. VISION 2020: The Right to Sight contact details.

### **Minimum system requirements**

- Windows 95, 98, or 98SE, Windows Me, NT 4.0, 2000, or XP;
- CD-ROM drive. The CD-ROM can be copied onto a hard-disk if needed. At least 400Mb of free space on the computer hard drive is needed to do this;
- At least 32MB of RAM;
- A web browser with Java script enabled. Mozilla 1.3.1 is available for Windows in the “Software” folder on the CD-ROM, see Section 4 for more information;
- Adobe Acrobat Reader to view, print and copy the background materials on the CD.

### **Using the VISION 2020: The Right to Sight: Developing an Action Plan CD-ROM**

The “VISION 2020: The Right to Sight: Developing an Action Plan” CD-ROM is accessed through an internet browser, like a web site. You will need a web browser with Java script enabled and capable of displaying graphics and tables to make full use of the material available. Mozilla 1.3.1 is available for Windows on the opening screen of this CD-ROM. See Section 4 for installation information.

To view, print or copy the background materials on the CD, you require Adobe Acrobat Reader on your computer.

#### *To start ....*

Insert the “VISION 2020: The Right to Sight: Developing an Action Plan” CD into your CD-ROM drive. The opening screen should come up automatically.

If you do not have a web browser installed on your computer, you can install Mozilla 1.3.1 from the opening screen by clicking on the arrow. Similarly, if you do not have Acrobat Reader on your computer, you can also install this package from the opening screen. If you have an older version of Acrobat Reader and you wish to update this package, you are advised to remove the older version first using the control panel.

If you are ready to continue with the CD, click on “Start” on the opening screen to open the first frame.

#### *If the CD-ROM does not run automatically...*

Select “Start” at the bottom left-hand side of your screen, and click on “Run”.

Then type: D:\index.htm (replace D with the letter of your CD-ROM drive).

Alternatively, double click on “My Computer”, right-click on the CD-ROM drive icon and click on “Autoplay”.

### *How do I move through the CD?*

With the navigation buttons on top of the screen the user can move between the different frames on this CD. After reading through the text of the first frame, click "Next" to go to the next frame. Follow the normal sequence and this will guide you stepwise through the entire planning process. Click on "Previous" to go back one frame before the current one. If you wish to go directly to a certain page, click on "Contents" to open the contents page and then click on the topic field of your choice to move directly to that page. Click on "Exit" to leave.

### *Accessibility*

- Text size. You can change the text size on this CD-ROM. In Internet Explorer (PC), use the View > Text Size menu. In Mozilla, use the View > Text Zoom menu.
- Access keys. Most web browsers support shortcuts called access keys you can use to jump to specific pages. If your browser supports them, press "ALT" + key (Windows) and then "Enter". The access keys for this CD-ROM are: c - CONTENTS, e - EXIT, g - GLOSSARY, h - HELP, n - NEXT page, p - PREVIOUS page, r - RETURN, s - SEARCH, x - PRINT TEXT

### *How to change the view of the screen?*

Press <F11> to remove the tool bars from the web browser and to show the frames full screen. Press <F11> again and the tool bars will show again. The font size can also be modified by opening the "View" menu.

### *What types of links are provided?*

On the right side of the main text, links to relevant documents, articles, slide shows, web sites, templates, software and addresses are provided.

### *Can I print the documents included on this CD?*

Yes. Click on "PRINT TEXT" link at the top of each page to print the entire text of the CD.

- Most documents on the CD are available as Portable Document Format (PDF), a universal file format that preserves the fonts, images, graphics, and layout of any source document, regardless of the application and platform used to create it. PDF files can be shared, viewed and printed by anyone with free Adobe Reader<sup>®</sup> software.
- Slide shows are also in .pdf format and can be viewed on screen or projected with an LCD projector. Open the slide show, press <Ctrl+L> to get a full screen and use <PgUp> and <PgDn>, or the arrow keys to move forward and backwards. To exit, press <Esc> and close Adobe Acrobat Viewer<sup>®</sup>.

### *How should I use the templates?*

On a number of frames on situation analysis, links to a specially designed spreadsheet are provided, in which the user can enter area-specific data on prevalence and causes of blindness, output data of eye-care services over the past five years, population data, and available human and infrastructure resources. The underlying spreadsheet will calculate the total needs, the output and utilization of human and infrastructure resources during the past few years and the required output to control blindness and visual impairment in the area. When there are differences between the current and the required output, eye-care managers have to determine whether increasing the efficiency of the existing facilities can bridge those gaps, or whether additional human resources, infrastructure, or equipment are required. This spreadsheet may help in the formulation of intervention priorities, objectives, and targets of VISION 2020 action plans.

Other templates for time analysis, budgeting, Logical Framework Analysis and Vision 2020 action plans are included as examples in Excel 95 and Word 95 format. These templates can be copied to the user's computer and modified to suit local conditions.

*Which software packages are included?*

On this CD you will also find software packages for cataract rapid assessments and cataract outcome monitoring. Click on the link and an installation screen will appear from which you can select which software to install. Manuals are also included.

### **Copying the VISION 2020: The Right to Sight: Developing an Action Plan CD-ROM to your hard drive**

The VISION 2020: The Right to Sight: Developing an Action Plan CD-ROM requires 400 Mb free hard disk space when copied to your hard disk.

*To copy ...*

Open "My Computer".

Right-click on your CD-ROM drive icon and select "Open".

Select all folders and files.

Right-click and select "Copy".

Locate and select your computer's hard-drive, right-click and select "Paste".

### **Useful software: Mozilla 1.3.1 and Adobe Acrobat Reader™ 5.05 & 6.0**

Two software programs – Mozilla 1.3.1 and Adobe Acrobat Reader™ 5.05 & 6.0 have been included on this CD-ROM to help you fully access the material ...

**IMPORTANT NOTE:** If you were supplied with a customized browser by your ISP, **DO NOT REMOVE IT** when installing Mozilla from this CD-ROM, because you will need it to access the Internet.

### **Instructions for installing Mozilla 1.3.1**

If the opening screen comes up automatically, press the "Install Mozilla" button on the opening screen to install Mozilla 1.3.1.

If the CD-ROM does not start automatically, double-click to open the "Software" and "Mozilla 1.3.1" folders. Double-click on "mozilla-win32-1.3.1-installer-sea.exe" to run the installation program.

### **Instructions for installing Adobe Acrobat Reader™ 5.05 & 6.**

- Windows 98, 98SE, Windows Me, NT 4.0, 2000 or XP users

If the CD-ROM runs automatically, press the "Install Adobe Acrobat 6" button on the opening screen to install Adobe Acrobat Reader™ 6.0. If the CD-ROM does not start automatically, double-click to open the "Software" and "Adobe Acrobat 6.0" folders. Double-click on "adbeRdr60\_enu\_full.exe" to run the installation program.

- Windows 95 users

If the CD-ROM runs automatically, press the "Install Adobe Acrobat 5 (Win 95)" button on the opening screen to install Adobe Acrobat Reader™ 5.05. If the CD-ROM does not start automatically, double-click to open the "Software" and "Adobe Acrobat 5.05" folders. Double-click on "ar505enu.exe" to run the installation program.

### **Feedback, further technical support and contact details**

VISION 2020: The Right to Sight welcomes your feedback and suggestions about this VISION 2020 – The Right to Sight: Developing an Action Plan CD-ROM. [Click here for contact details.](#)

If you still have problems running the CD-ROM after reading this document, or if you require specific advanced technical support, please contact VISION 2020: The Right to Sight. [Click here for contact details.](#)

Annex 2.

**Glossary**

**A**

Aim	A general statement of what is intended to be achieved
AC-IOL	Anterior chamber intraocular lens
Aphakia	Without a lens
APOC	Africa Programme for Onchocerciasis Control
Assessment	A collection of all information on a certain subject, including an opinion on its status
Avoidable blindness	Blindness which could reasonably be prevented or cured within the limits of resources likely to be made available

**B**

Baseline data	Measurements of the situation at the beginning of an intervention Used for planning and to measure progress after implementation of the intervention
Blindness	(WHO definition) visual acuity of less than 3/60 (or equivalent) in the better eye with best correction, or visual field in each eye restricted to less than 10 degrees from fixation

**C**

CDTI worker	Community directed treatment with ivermectin worker
CO	Corneal opacity (simplified grading of trachoma)
Cochrane Eyes and Vision Group	An international network of individuals working to prepare, maintain and promote access to systematic reviews of interventions to treat or prevent eye diseases or visual impairment
CSC	Cataract Surgical Coverage: the proportion of people (or eyes) with 'operable' cataract who have already received surgery at a certain point in time
CSR	Cataract Surgical Rate: the total number of cataract operations performed per year per million population

**E**

ECCE	Extracapsular cataract extraction
Efficiency	A measure comparing achievement with the efforts and resources expended
EHSA	Eye Health Service Area
Evaluation	The overall analysis of project achievements at intervals

**G**

Gantt chart	Detailed graph of the start and end dates of various activities under a plan
-------------	--

H

HRD Human resources development: all activities aimed to improve people's abilities to achieve defined objectives and targets

I

IAPB International Agency for the Prevention of Blindness  
 ICCE Intracapsular cataract extraction  
 IEC Information, education and communication  
 Impact The overall long-term effect of a programme on health and general socioeconomic situation  
 Incidence The number of new cases with a defined characteristic occurring in a defined area in one year  
 IOL Intraocular lens

L

LFA Logical Framework Approach: a systematic approach to analyse the current situation, formulate objectives in a logical hierarchy, identify potential risks, establish how outputs and outcomes might best be monitored and evaluated, present a summary of the project in a standard format, and monitor and review the action plan during implementation

M

Monitoring Day-to-day assessment of project activities and progress

N

NGDO Nongovernmental development organization  
 NGO Nongovernmental organization

O

Objectives A measurable and time-bound statement of what has to be achieved, e.g. 10 refractionists trained within 2 years  
 OEPA Onchocerciasis Elimination Programme in the Americas  
 Outcome General: the results of an intervention programme  
 More specifically: visual acuity or visual function after cataract surgery  
 Outlay The total costs of an intervention strategy  
 Output The total amount of work done under an intervention strategy, e.g. number of cataract operations, trichiasis operations done.

P

PEC Primary eye care  
 PHC Primary health care

PC-IOL	Posterior chamber intraocular lens
Practical	Student activity, e.g. learning a skill or group work
Prevalence	The number of cases of a clearly-defined condition in a defined area at a defined point in time
R	
RACSS	Rapid Assessment of Cataract Surgical Services
Resources	(a) Any source of information from which students are able to learn, e.g. library, teaching materials, human resources (other students, teachers, etc.). All these are referred to as "learning resources" (b) Funding, staffing, equipment, anything required to accomplish one's goals, e.g. conduct a training course, upgrade a health care facility, etc.
ROP	Retinopathy of prematurity
S	
SAFE	A strategy adopted by WHO for the control of trachoma: Surgery; Antibiotics; Facial cleanliness; Environmental change
Seasonal trend	Variations in a certain characteristic by season
SICS	Small incision cataract surgery
Simulation	Similar to a case study
Situation analysis	Assessment of all aspects of the present status of a health programme: its needs, the current output, unmet needs, constraints, available resources, costs, barriers, etc.
Social marketing	A process of generating demand for health-care services from the community from those who need health interventions but are not seeking them
Survey	Systematic examination of a few individuals from a defined population in order to know more about the entire population
T	
Target	Steps or markers on the way to achieve an objective
TF	Trachoma follicular (simplified grading of trachoma)
TI	Trachoma Infectious (simplified grading of trachoma)
Trichiasis	One or more eyelashes rubbing on the globe of the eye
TS	Trachoma scarring (simplified grading of trachoma)
TT	Trachoma trichiasis (simplified grading of trachoma)
V	
VA<3/60	A person or eye that cannot see a standardized character at 3 metres distance, what a person or eye with normal vision can see at 60 metres distance. Equivalent systems exist using other notations, such as feet (VA<20/400), decimal system (0.05) and the logMar system
W	
WHO	World Health Organization

### Copyright and disclaimer

© World Health Organization 2004, Developing an Action Plan to prevent blindness at national, provincial and district levels, edition 2. Copyright of individual documents within this CD remains with the original publishers.

All rights reserved. Extracts of the materials contained on this CD-ROM, may be used and reproduced for personal, educational, non-commercial use only. Any other use requires the permission of the relevant copyright holder. Requests for permissions, with a statement of the purpose and extent, should be addressed to Publications, World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland (fax: +41 22 791 4806; email: [permissions@who.int](mailto:permissions@who.int))

The designations employed and the presentation of the material on this CD-ROM do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned.

The World Health Organization does not warrant that the information contained on the CD-ROM is complete and correct. The Organization shall not be liable for any damages incurred as a result of use of the data or programs.