

Blindness prevention programmes: past, present, and future

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Blindness and visual impairment have far-reaching implications for society, the more so when it is realized that 80% of visual disability is avoidable. The marked increase in the size of the elderly population, with their greater propensity for visually disabling conditions, presents a further challenge in this respect. However, if available knowledge and skills were made accessible to those communities in greatest need, much of this needless blindness could be alleviated.

Since its inception over 50 years ago, and beginning with trachoma control, WHO has spearheaded efforts to assist Member States to meet the challenge of needless blindness. Since the establishment of the WHO Programme for the Prevention of Blindness in 1978, vast strides have been made through various forms of technical support to establish national prevention of blindness programmes. A more recent initiative, "The Global Initiative for the Elimination of Avoidable Blindness" (referred to as "VISION 2020 — The Right to Sight"), launched in 1999, is a collaborative effort between WHO and a number of international nongovernmental organizations and other interested partners. This effort is poised to take the steps necessary to achieve the goal of eliminating avoidable blindness worldwide by the year 2020.

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Mots clés: Cécité/prévention et contrôle; Organisation mondiale de la Santé; Programme national santé/ orientations; Coopération intersectorielle (*source: INSERM*).

Palabras clave: Ceguera/prevenición y control; Organización Mundial de la Salud; Programas nacionales de salud/ tendencias; Cooperación intersectorial (*fuente: BIREME*).

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Voir page 225 le résumé en français. En la página 225 figura un resumen en español.

Introduction

This article summarizes WHO's activities in blindness prevention, from the early years to the present day, and outlines the current and future global challenges in blindness prevention as well as the plans to address them.

Past and present

WHO's early efforts on blindness prevention, starting in the 1950s and predating the formal

establishment of a programme for the prevention of blindness (1), were devoted to the prevention and possible eradication of trachoma. These efforts involved not only providing assistance to Member States to assess the magnitude of the problem and institute control activities, but also several research initiatives on treatment options. The research activities included laboratory and field studies (2, 3) and, based on the results, strategies were evolved for the prevention and control of trachoma. These strategies, which were delivered in national trachoma control programmes, primarily in a number of countries in the Eastern Mediterranean, South-East Asia and Western Pacific Regions where trachoma was hyperendemic, consisted largely of antibiotic treatment using 1% tetracycline eye ointment. These national activities were, however, single-purpose vertical programmes and, although they succeeded in reducing endemicity and preventing blindness from trachoma, were generally not sustainable. As a

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result the control of blinding trachoma became an unfinished agenda (4).

Just prior to and particularly after the establishment of the WHO Programme for the Prevention of Blindness (PBL) in 1978, the scope of the organization's blindness prevention activities became more broadly based when onchocerciasis, xerophthalmia and cataract were identified, in addition to trachoma, as preventable causes of blindness. PBL's mandate was to assist Member States to organize programmes and activities aimed at the prevention and control of these four major causes of blindness and visual impairment identified at that time. Consistent with the declaration of the International Conference on Primary Health Care held in Almaty, 6–12 September 1978, the strategy adopted by PBL was the delivery of eye care as an integral part of primary health care, and the concept of "primary eye care" was developed. This strategy remains in place even today (5).

The data on blindness compiled at the request of the Twenty-fifth World Health Assembly (6) in 1972 provided the earliest epidemiological information on the magnitude and pattern of blindness globally. The methods used to collect these data in population surveys in many countries differed, however, and in 1978 WHO therefore produced standardized guidelines and protocols for this purpose (7). Subsequently, WHO also prepared a standardized protocol for collecting data for use in a simplified grading system for community-based trachoma surveys and childhood blindness (8, 9).

In 1975, largely as a result of the pivotal role played by WHO, the International Agency for the Prevention of Blindness (IAPB) was set up. Several initiatives followed as a result; for example, the theme of World Health Day on 7 April 1976 was "Foresight Prevents Blindness". The founder members of IAPB included the International Council of Ophthalmology (representing the International Federation of Ophthalmological Societies), the World Council for the Welfare of the Blind (later renamed the World Blind Union) and two international nongovernmental organizations — the American Foundation for the Blind (later renamed Helen Keller International) and the Royal Commonwealth Society for the Blind (later renamed Sight Savers International).

National programmes for the prevention of blindness

Working together with IAPB, an early initiative of WHO/PBL was to establish national programmes for the prevention of blindness in a number of Member States. As a result, in some countries the existing and partially defunct national trachoma control programmes became more broadly based and began also to address xerophthalmia and cataract. By the mid-1980s, over 50 national programmes, committees, or focal points had been established and by 1998 this number had increased to more than 110.

The goal is to have national prevention of blindness programmes in place in all Member States where blindness and visual impairment are problems of public health importance. WHO played a key role in these developments, through providing guidelines (10), sending consultants, and working with international nongovernmental organizations.

Early partnerships with international nongovernmental organizations

In addition to the above-mentioned collaboration with IAPB, WHO/PBL has promoted close collaboration with international nongovernmental organizations through exchange of information and joint activities. This was the beginning of a working relationship that has been hailed as a unique success story and the forerunner of what is now known as VISION 2020 — The Right to Sight.

The Onchocerciasis Control Programme (OCP) was a major WHO programme set up in 1974 to control onchocerciasis in seven countries in West Africa (11, 12). OCP was jointly sponsored by WHO, the World Bank, UNDP and the United Nations Food and Agriculture Organization and is supported by a coalition of more than 20 donor countries and agencies, with WHO acting as the executive agency. OCP is scheduled to end by the year 2002. Examples of the collaborative efforts between WHO and international nongovernmental agencies include the development of the Onchocerciasis Elimination Programme for the Americas (OEPA) in 1992, the African Programme for Onchocerciasis Control (APOC) (13, 14) in 1995, and the WHO Alliance for the Global Elimination of Trachoma by the year 2020 (GET2020) (15). These developments have facilitated WHO's work in Member States in various areas of blindness prevention, apart from specific disease control. There has also been important technical cooperation in the development of human resources and of infrastructure and appropriate technology (16, 17).

Global database on blindness and visual impairment

The development of the WHO Global Database on Blindness and Visual Impairment (18) provided the first reliable estimates of the global burden of blindness and visual impairment and served as baseline data for the World Bank's *World development report 1993* (19). The findings — an estimated 38 million persons blind and 110 million visually impaired (based on the 1990 world population) — were disturbing. Subsequent extrapolation of these data to the 1996 world population led to an upward revision to 45 million blind and 135 million visually impaired. Of this blindness, 80% is avoidable, while 90% of the burden it represents is borne by developing countries.

The database also revealed the disproportionate prevalence of blindness among older age groups, largely as a result of noncommunicable diseases. It has been projected that the number of visually disabled will double by the year 2020, based on age-specific prevalences and projected demographic trends, assuming that current levels of eye care services continue. This is not surprising, given the rapid “greying” of the population worldwide, and especially in developing countries. This realization formed the rationale for the development and launching of VISION 2020 — The Right to Sight.

VISION 2020 — The Right to Sight

Launched in early 1999 in Geneva by WHO's Director-General, VISION 2020 — The Right to Sight (a collaborative effort between WHO and a number of partners (governmental and nongovernmental organizations, professional bodies and institutions)) has as its goal the elimination of avoidable blindness by the year 2020. While adopting the basic strategy of providing comprehensive eye care as an integral part of the primary health care system, “VISION 2020” includes three major components as target activities: specific disease control, human resource development, and infrastructure and appropriate technology development. In the first five-year phase, disease control efforts will focus largely on cataract, trachoma, onchocerciasis, avoidable causes of childhood blindness, uncorrected refractive error, and low vision. Although global targets have been set for the three major components listed above, these are currently being fine tuned through regional- and country-level consultations to reflect the situation and the feasible targets in the regions and more specifically in individual Member States.

As VISION 2020's mission statement emphasizes, “Our mission is to eliminate the main causes of blindness in order to give all people in the world, particularly the millions of needlessly blind, the right to sight”.

The future

VISION 2020 was conceived and developed at a global level through consensus among experts from around the world. It needs, however, to be implemented locally at the country level and, more importantly, in those areas where the needs are greatest.

Ensuring implementation of VISION 2020 at the national level

WHO and its partner organizations (such as IAPB) can provide the technical expertise and resources to ensure that VISION 2020 will be carried out at the national and subnational levels. In this respect, WHO is able, for example, to monitor the achievements and constraints at the national level and to provide the support needed by countries. WHO will also provide

the necessary mechanisms to coordinate activities and assist in the optimal utilization of the resources that become available.

WHO is mandated to provide guidelines and a framework for activities such as needs assessment, planning, quality assurance, monitoring and evaluation of VISION 2020. Many of these activities have already been initiated and will be expanded and provided to Member States and partner organizations for use in national programmes.

Emerging disease trends

The needs of countries in terms of specific emerging diseases such as diabetic retinopathy, glaucoma and ageing-related macular degeneration will be included in VISION 2020 activities, as some of the more easily preventable and curable priority conditions come under control. However, in countries where many of the other diseases currently included as global priorities for VISION 2020 do not exist, attention should be given to specific emerging ocular diseases, some of which are already assuming public health dimensions. Given the finite resources that are likely to become available, emphasis is being placed on equity, and on achieving the greatest good for the largest number of people in the shortest time, at the lowest cost. At the same time, the need to ensure the quality of the outcomes is receiving prime attention.

Advocacy and resource mobilization

The goal of VISION 2020 is ambitious. Moreover, it is far too challenging a task for a single organization or country to undertake. The partnerships currently in place will be strengthened; and new collaborative partnerships will be forged with the private sector, nongovernmental organizations and groups not directly involved in prevention of blindness, as well as with civil society in general. Experience gained in setting up partnerships with industry, as exemplified by the Mectizan® Donation Program, will be explored and new collaborative arrangements established.

WHO's system of Collaborating Centres will be expanded with revised terms of reference and plans of work in line with the strategies and activities of VISION 2020. These centres, identified on the basis of their excellence, often in the areas related to the three major components of VISION 2020, could provide technical support both to countries themselves and to partner nongovernmental organizations in implementing the initiative.

Health systems research

Although basic research has not been included within the current framework of VISION 2020, epidemiological and operational research would form key components of needs assessment and programme management. These activities would take the form of participatory research at the programme implementation level.

The goal of VISION 2020, as currently stated, is the global elimination of avoidable blindness. It is envisaged that, in the process of achieving this goal, a sustainable infrastructure for the delivery of comprehensive eye care as an integral part of the health delivery system will be established. Irrespective of whether this infrastructure is in the governmental or nongovernmental sector, user fees and cost-recovery mechanisms are of critical importance in view of the market economies that prevail in most countries. Several partner international nongovernmental organizations have already developed models that have been successful in different settings. Further work in this regard would be supported and some of the successful models replicated widely, with suitable modifications.

Conclusions

The current global backlog of needless blindness and its projected doubling by the year 2020 are a challenge to the whole of society. Individuals who, by virtue of their knowledge and skills, can make a major contribution to meet this challenge have not only a professional but also a moral responsibility in this respect. Poverty looms large in those very countries with the greatest burden of avoidable blindness and this is compounded by the inequity in the quantity and quality of eye care services available in these countries.

The ultimate goal of VISION 2020 is to meet the aspirations of people to their fundamental human right to sight. WHO is well placed to provide the leadership towards achieving this goal. ■

Résumé

Programmes de prévention de la cécité : passé, présent et futur

La cécité et la déficience visuelle ont des répercussions sociales étendues, d'autant plus qu'on sait maintenant que 80 % des cas de déficience visuelle sont évitables. L'augmentation marquée du nombre de personnes âgées, davantage sujettes aux affections incapacitantes sur le plan visuel, aggrave encore la situation. Pourtant, si les connaissances et les compétences disponibles étaient rendues accessibles aux communautés qui en ont le plus besoin, une grande partie de ces cas de cécité pourraient être évités.

Depuis ses débuts il y a plus de 50 ans, et en commençant par la lutte contre le trachome, l'OMS a conduit les efforts visant à aider les Etats Membres à faire

face au défi de la cécité évitable. Depuis la création, en 1978, du Programme OMS de prévention de la cécité, des entreprises de grande ampleur ont été menées sous la forme de diverses modalités de soutien technique à l'établissement de programmes nationaux de prévention de la cécité. Une initiative récente, l'Initiative mondiale pour l'élimination de la cécité évitable (appelée VISION 2020 – Le droit à la vue), lancée en 1999, qui repose sur une collaboration entre l'OMS, des organisations non gouvernementales internationales et d'autres partenaires, s'apprête à prendre les mesures nécessaires pour atteindre le but de l'élimination de la cécité évitable d'ici à 2020 dans le monde entier.

Resumen

Programas de prevención de la ceguera: pasado, presente y futuro

La ceguera y los trastornos visuales tienen amplias repercusiones en la sociedad, tanto más graves cuanto que el 80% de los casos de discapacidad visual pueden evitarse. El pronunciado aumento de la población de edad, con su mayor tendencia a padecer enfermedades causantes de discapacidad visual, constituye un reto adicional a este respecto. No obstante, si las comunidades más necesitadas pudieran acceder a los conocimientos teóricos y prácticos al respecto, gran parte de esa carga de ceguera se evitaría.

Desde sus inicios hace más de 50 años, y empezando por la lucha contra el tracoma, la OMS ha encabezado los esfuerzos desplegados para ayudar a los Estados Miembros a enfrentarse a la ceguera evitable.

Desde el establecimiento del Programa de la OMS para la Prevención de la Ceguera, en 1978, se han dado grandes pasos mediante diversas formas de ayuda técnica para lanzar programas nacionales de prevención de la ceguera. Una iniciativa más reciente, la «Iniciativa Mundial para la Eliminación de la Ceguera Evitable» (conocida como «Visión 2020: el derecho a ver»), emprendida en 1999, constituye un esfuerzo de colaboración entre la OMS y varias organizaciones no gubernamentales internacionales y otros asociados interesados. En el marco del esfuerzo desplegado bajo ese lema deben adoptarse las medidas necesarias para alcanzar el objetivo de eliminar la ceguera evitable en todo el mundo para el año 2000.

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