

Summary report on the

# Regional workshop on the development of public health control strategies on glaucoma

Cairo, Egypt  
14–16 December 2009

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## **1. Introduction**

The World Health Organization (WHO) Regional Office for the Eastern Mediterranean (EMRO), in collaboration with the International Agency for the Prevention of Blindness (IAPB) and IMPACT-EMR, jointly organized a regional workshop on the development of public health control strategies on glaucoma in Cairo, Egypt, from 14 to 16 December 2009. The workshop was attended by 42 participants, including national coordinators of eye care and prevention of blindness programmes, representatives from ministries of health in Member States of the Region, representatives of nongovernmental organizations and professional societies, regional and international glaucoma experts and staff from WHO Regional Office for the Eastern Mediterranean. The main aim of the workshop was to intensify the efforts of Member States, the secretariat and international partners working in eye care and prevention of blindness and visual impairment to prevent vision loss due to glaucoma through the development of public health strategies for the control of glaucoma.

The specific objectives of the workshop were to:

- review the current status of the magnitude, types, treatment and control measures for glaucoma in the Region;
- review recent advances in the treatment and public health control of glaucoma;
- outline priorities in the treatment and public health control of glaucoma in the Region;
- develop guidelines for the treatment and public health control of glaucoma; and
- identify areas of research in the treatment and control of glaucoma.

Dr Hussein A. Gezairy, WHO Regional Director for the Eastern Mediterranean in his opening address noted that glaucoma was a group of diseases that could steal sight without warning or symptoms. Glaucoma

was the second leading cause of blindness worldwide, responsible for 12% of all blindness. With rapid demographic changes and increase in the elderly population, this number was expected to increase dramatically in the future.

Dr Gezairy said that while everyone was at risk of glaucoma, certain groups were at higher risk than others. Glaucoma was the leading cause of blindness among African-Americans. People above the age of 60 years were six times more likely to get glaucoma. The most common type of glaucoma was primary open angle glaucoma. Family history increased the risk of glaucoma four to nine times.

Some evidence linked steroid use to glaucoma. Other risk factors included eye injury, high myopia, diabetes and hypertension. Individuals at risk and those over the age of 40 should have regular, comprehensive eye examinations that included careful evaluation of the optic nerve and measurement of the eye pressure. Unfortunately, due to lack of infrastructure and trained human resources, this was not a common practice in many Member States of the Region.

It was estimated that among the 5.3 million blind people in the Region, about 500 000 people were blind due to glaucoma. Given that vision loss was associated with ageing, this number would increase in coming years.

Professor Amel Quartani (Tunisia) and Professor Mohammed Daud Khan (Pakistan) were elected as Chair and Co-chair, respectively. Dr Mohammed Mansur Rabiou (Saudi Arabia); Dr Haroon Awan (Pakistan), Dr Rajiv Khandekhar (Oman); Dr Shariq Masood (Saudi Arabia), Dr Abdul Hannan Choudhury (Egypt) served as Rapporteurs.

## **2. Summary of discussions**

The group noted that while population-based blindness surveys had been conducted in some countries (Pakistan, Oman and Qatar) and had provided useful data on the prevalence of blindness and visual impairment due to glaucoma, information on glaucoma was lacking in several Member States of the Region. As well, there are no successful models of public health control of blindness/visual loss due to glaucoma in the Region.

Participants emphasized the need to develop a rapid assessment methodology to determine the need for glaucoma control activities and to facilitate evidence-based planning as an integral part of national eye health programmes. Various guidelines and best practices for the management of glaucoma exist and are useful for reference, such as the International Council of Ophthalmology (ICO), the American Academy of Ophthalmology, and the National Institute of Clinical Excellence (NICE) United Kingdom, etc. Glaucoma is not a single disease entity but a group of conditions damaging the optic nerve resulting in irreversible vision loss. During the early stages of the disease, there may be no symptoms. Although there is no cure yet for glaucoma, surgery or medication can slow or prevent further loss of vision. Early detection is vital to delay the progression of disease and vision loss.

Participants emphasized that the delivery of any glaucoma control initiative has to be part of an overarching national eye health programme that is integrated within national health systems and development plans. To date, very little progress has been made in developing public health strategies for glaucoma that could reduce the number of people with vision loss from the disease. This is because interventions for blindness

prevention due to glaucoma are limited and there is no simple screening test.

Community-based screening for glaucoma presents many challenges. However, the primary health care level vision centres (or their equivalent, such as rural health centres) that are staffed by trained optometrists or ophthalmic paramedics could provide a screening function for glaucoma. Given the basic eye care infrastructure that such a vision centre would have, it would also provide refraction services, counselling services and follow-up treatment for patients diagnosed with glaucoma. Village health committees, comprising leaders from the community, could play an important role in providing eye health information, education and communication to the community.

Outreach services are practised for case finding e.g. cataract, refractive errors or diabetic retinopathy. This presents an opportunity to identify patients with established glaucoma, e.g. presence of glaucomatous cupping. Such patients may already have evidence of visual impairment/field loss making identification easier. Participants appreciated the synergy that might exist between interventions for control of glaucoma and other health programmes, especially screening for chronic metabolic diseases.

The establishment of patient support groups should be encouraged. Such groups could serve to enhance compliance and adherence to treatment, as well as serve as agents for advocacy. Stronger partnership and collaboration are needed among public and private sectors along with the media for dissemination of information and communication.

The secondary, or district level, is vital for the management of most patients presenting with glaucoma, as such, existing eye care services at this level should be strengthened to provide enhanced glaucoma services. At these centres, patients should also have access to low vision care and



counselling services. The tertiary centres need to be strengthened to provide advanced glaucoma care and training. Participants emphasized the need to align eye health indicators with the national health management information system.

It was noted that the standard of management of glaucoma varies widely within the Region. Participants stressed the need for suitable training of eye health professionals to provide quality care for glaucoma and recognized that it was mandatory to ensure quality assurance of eye health programmes in general and interventions in control of glaucoma specifically.

### **3. Recommendations**

#### *To Member States*

1. Regional best practice recommendations for public health management of glaucoma should be adapted according to individual country contexts and disseminated among all eye health professionals in the country.
2. Glaucoma control interventions should be aligned with the existing eye health care within the health system in countries, using the following strategic approach:
  - At the primary care level, persons identified as high risk for developing glaucoma e.g. those with a strong family history, should be referred to the next level of eye care. Orientation sessions should be held for village health committees to orient them on community eye health with special reference to glaucoma;
  - At the secondary or district level, existing eye care services in hospitals should be strengthened to provide enhanced glaucoma services. This should include provision of relevant

diagnostic and therapeutic equipment for the comprehensive assessment and treatment of glaucoma. The deployment of a suitably trained multi-disciplinary team (which may include an ophthalmologist, optometrist, ophthalmic clinical assistant and ophthalmic nurse) may be necessary at this level;

- At tertiary or specialist centre level, infrastructure, technology and human resource capacity should be strengthened to provide specialist referral services for the diagnosis, treatment and rehabilitation of patients with glaucoma. Such centres may also participate in research and human resource development, such as subspecialty training for glaucoma specialists in accordance with local regulations for accreditation and employment; and
  - The mass media should be used for dissemination of appropriate messages related to the importance of glaucoma.
3. Where feasible, glaucoma control interventions should link up with ongoing preventive health screening programmes and interventions by the government, nongovernmental organizations and other organizations that may contribute to the control of glaucoma.
  4. Countries should ensure training and deployment of glaucoma specialists according to the national human resources for eye health plan, as well as refresher training in glaucoma care for existing eye health professionals, such as ophthalmologists, optometrists and ophthalmic nurses.
  5. National eye health programmes should develop a gender-sensitive eye health information system, including indicators for glaucoma, which are aligned with, and integrated within, the national health management information system.

6. A glaucoma registry should be established at secondary and tertiary levels of eye care. This can also be used for identifying treatment and following up defaulters.
7. The monitoring and evaluation framework for the national eye health plan should incorporate indicators for glaucoma control, and quality standards for programme implementation should be developed and adopted.
8. Operational research for glaucoma control should be encouraged and pilot projects should be initiated, where feasible, to establish best practice models.

*To WHO and partners*

9. The Middle East African Glaucoma Society should conduct a situation analysis on the current status of glaucoma in the Region and present this as a report to the International Agency for Prevention of Blindness (IAPB) and WHO Regional Office for the Eastern Mediterranean by the year 2010.
10. An expert working group for glaucoma should be established, in collaboration with the Middle East Africa Council of Ophthalmology (MEACO), WHO collaborating centres and IAPB-EMR, to assist Member States in the control of blindness due to glaucoma.
11. Rapid assessment tools should be developed for glaucoma, in collaboration with appropriate institutions and expert groups for glaucoma.
12. Collaboration should be strengthened among all partners interested to support eye care and control of glaucoma.

13. IAPB-EMR may consider the production of an annual eye health regional activity report that would provide an update on eye health, including glaucoma in the Region, and could be used in advocacy and communications.