Successful Cataract Surgery Program Reduces Blindness in India

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Public Health Burden

Vision loss from cataract is the leading cause of blindness in the world. One and a half million new cases of cataract blindness occur each year, and the consequences affect individuals, families, and communities (2). The majority of people with cataract blindness live in developing nations where their blindness is related to poverty, lack of medical insurance, and inadequate access to eye care and surgical services. The cure for cataract blindness is a safe and inexpensive surgery. While the solution is simple, it has also been beyond the reach of most of the people of the world.

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The World Bank assisted Cataract Blindness Control Program of India is an example of what can happen when funds and commitment are adequate. A focus on infrastructure, creation of communication systems, and coordination of efforts from a multitude of service providers, has resulted in a program that has effectively reduced the rate of cataract blindness and cataract-related eye problems throughout India.

After 8 years of program development and delivery under the World Bank assistance program, the Indian government is committed to continuing and expanding the cataract blindness control program. Cost-effectiveness has been high and a backlog of approximately 20 million cataract surgeries is now under control.

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India and the National Program for the Control of Blindness

In 1963, during growing global attention on blindness, India became one of the first countries in the world to organize a centrally sponsored national program to address issues of eye disease. The program was aimed at controlling trachoma, an eye infection that is easily spread and that commonly results in blindness. Over the next decade this program was broadened to cover all visual impairment and also included the prevention of blindness.

The Central Council of Health, Government of India, in the year 1975, stated in the National Health Policy, that, "One of the basic human rights is the right to see. We have to ensure that no citizen goes blind needlessly, or being blind does not remain so, if, by reasonable deployment of skill and resources, his sight can be prevented from deteriorating, or if already lost, can be restored." This statement illustrates the country's political commitment at the national level.

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Strengthening Institutional Capacity

Based on the experiences of previous blindness control programs, the Cataract Blindness Control Project was committed to decentralization of eye care services in the seven targeted states. To that end, District Blindness Control Societies were established, each headed by a District Program Manager. Each district was assigned eye surgeons and Paramedical Ophthalmic Assistants (PMOAs) to diagnose patients, conduct surgeries, and perform follow-up care. Despite difficulties in coverage and administrative load, this structure has worked well. A continued commitment to hiring, training, and the strengthening of job roles will build on this foundation of service providers for an even larger push to treat cataract blindness.

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Is it Worth the Effort?

Evidence of the enormity of the task in India, to reduce blindness caused by cataract, is illustrated in statistics from just one year of the program, and in projections of the number of surgeries that will be required.

Based on an estimated 3.5 million cataract surgeries in India in 2000, results indicate that 320,000 people were saved from blindness. In order to eliminate cataract blindness completely, it would require 9 million quality cataract surgeries per year between 2001 and 2005, and then an increase to over

14 million surgeries per year between 2016 and 2020. This represents an increase of three to four times the current number of surgeries. The number of people in India for whom cataract blindness is being averted by surgery is still very small compared to the total number of people blind from cataracts (2).

Results of the Cataract Blindness Control Program are multiple and long reaching. Reorganization and strengthening of the infrastructure required to deliver services has been paramount in addressing the program objectives. Further important work remains to expand and continue the training of professionals and the education of beneficiaries in order that the improved infrastructure can function as planned. Variations among districts and states pose challenges to managing the Cataract Blindness Control Program, and numerous studies are helping to identify specific areas for improvement.

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Assessing current levels of knowledge and attitudes among beneficiaries of cataract surgery has been an important element of India's Cataract Blindness Control Program. Interesting summary information includes the following:

- There is a gender bias toward males in a family's choice of who gets to have cataract surgery.
- There is a strong perception, especially in rural communities, that cataract blindness is a common and accepted development of old age.

- Treatment seeking behavior is strongly influenced by education about positive outcomes of cataract surgery, as well as by experience and stories (both good and bad) shared in the community.
- Levels of satisfaction with cataract surgery are strongly influenced by any recovery of sight that improves the status of the patient in both the family and community setting.

Beneficiary studies have shown that failures of cataract surgery have most often resulted from poor follow-up care. When patients are dependent on others to bring them to and from a clinic, there is often a lack of attention to follow-up visits. Also, when a patient feels that the procedure is complete, he or she often discontinues visits for follow-up care. The opportunity to provide improved education and training at the point of service delivery is an important part of the continuing public health push of this program.

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Conclusion

Because of a continued commitment to addressing issues of blindness through local, national and international means, India is now experiencing a reversal in the prevalence of blindness from cataract. In an effort to reduce the backlog of cataract surgeries in 1994, the World Bank assisted Cataract Blindness Control Program made a commitment to perform 11 million surgeries over a period of 7 years. The program has exceeded this total with an estimated 15.35 million operations performed, 48% from private unfunded service providers and 52% from government and NGO facilities. The number of cataract surgeries using intra-ocular lens implants has also increased to 50%, and there has been a quality shift of surgeries away from eye camps and toward institutional locations.

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References

1 - 10, see full article.