Impact of World Bank Assisted Cataract Blindness Control Project on Cataract Backlog in Tamilnadu

Dr. R. Venkatesh, Mr. R. Meenakshi Sundaram, Mr. B.S. Ganesh Babu, Dr. Aravind, Aravind Eye Hospital, Madurai

Introduction

According to the NPCB survey, there are about 12.34 million people [Source: WHO/ GOI National Survey (1986-89)] who are blind in India of which 80% is due to cataract.

Government of India launched the National Programme for Control of Blindness (NPCB) in 1976 after it was realised that cataract was the major cause of blindness in the country. Government health care organisations and private practitioners perform the rest.

World Bank project

Government of India selected seven states under the World Bank project and Tamilnadu is the one among them (Table.1). These states were selected due to their high rate of prevalence of cataract and the feasibility in implementing the project.

This project was initiated in 1994 and a target was fixed to perform 11 million cataract surgeries by 2001. Towards achieving the target various measures like strengthening the infrastructure of district level hospitals, IOL implantation training to the district level ophthalmologists, refraction facilities at PHC level were given focus. District Blindness Control Society was formed under the chairmanship of district collectors/ magistrates. District Program Manager (DPM) is appointed by the chairman to execute administrative works regarding this project in the district. (Chart 1)

In India, NGO performs nearly 40% of the total cataract surgery in a year. To encourage NGO sector to take more load, grant in aid to reimburse the cataract surgery expenses was introduced from the year 1996. In each district, areas consisting of taluks, panchayat unions, municipalities were allotted to NGO hospitals as per their previous experience, infrastructure and capacities to undertake the workload. According to this system, a registered trust hospital is eligible to claim Rs.600/- (IOL) and Rs.400 (for ECCE) for patients who were brought from the camps and operated in their base hospitals.

Table 1: State-wise	prevalence and	estimated blind	persons

State	Population 1991	Prevalence */ 10,000 pop.	Estimated **blind persons		
Rajasthan	43997990	224	938000		
Madhya Pradesh	66181170	201	1322000		
Orissa	31659736	172	538000		
Tamilnadu	55858946	165	922000		
Maharashtra	78937187	164	1252000		
Uttar Pradesh	139112287	158	2098000		
Andhra Pradesh	66508008	150	1088000		

* Source: WHO / GOI National Survey (1986-89)

** Survey results projected for 1991 census population

Chart 1: Organisational structure for NPCB



Table 2: Cataract surgery performance in Tamilnadu

Year	No. of Cataract Surgeries			
1990-1991	88643			
1991-1992	151323			
1992-1993	171946			
1993-1994	208712			
1994-1995	251791			
1995-1996	267491			
1996-1997	296847			
1997-1998	329773			
1998-1999	373690			
1999-2000	366588			
2000-2001	362742			

Grant in aid Rs.300/- (50% of reimbursement) is paid as first installment on submission of surgery reports and balance is paid after submitting follow-up records of patients, which normally takes two months to one year.

Eye care in Tamilnadu

Tamilnadu has 55,858,946 of population with 922,000 blind persons. It has been thriving well for quite a long time with its Cataract Surgical Rate (Table 2), next to Gujarat which has performed the highest cataract surgeries in India.

Wherever the Government hospitals do not have adequate facilities like beds, surgeons and operation theatre facilities, they developed association with the local NGOs to achieve the district level target by mobilising the patients to NGO hospitals for surgery.

Impact of WB project in Aravind Eye Hospital

Aravind Eye Hospital established in 1976, operated 11,000,000 cataract patients during the past 25 years. Major workload of our organisation comes from community outreach activities (55%) and the following (Table 3) shows the increase in performance of eye camps after implementing WB project in Aravind Eye hospital.

The figures in table 3 point out that there was tremendous change in our performance after implementing the project in 1998 and also doubled our yield from eye camps. Likewise there has been a great effect on other states where the WB project has been executed. The impact of the project on the selected states is shown in (Table 4). It also provides a comparison with the other states.

Year	No. of camps	Patients screened	Cataract operations
1991	707	191000	19558*
1992	734	195977	20839
1993	797	204102	23062
1994	876	217011	27138
1995	861	215161	31946
1996	927	240000	36274
1997	1041	287571	39020
1998	1346	373997	63139**
1999	1488	413580	84261
2000	1548	426350	89811

Table.3: Eye camp performance

* IOLs were first introduced for camp patients @ Rs. 500/-

** Free IOL camps introduced

Table 4: Cataract surgery performance in WB project states

Year	AP	MP	MH	OR	Raj	TN	UP	Total	Others
1994-1995	181375	160243	257381	40059	90680	251791	295878	1277407	854310
1995-1996	246335	174731	314000	46835	120676	267491	322008	1492076	978333
1996-1997	275163	212954	357407	60641	136103	296847	370690	1709805	1012731
1997-1998	295735	254138	389701	74713	157243	329773	419865	1921168	1111141
1999-2000	346197	266434	374565	69718	195343	366588	503378	2122223	1253949

Cataract surgical rate for the year 1999-2000 was 338/10000 at National level which was 25% more i.e. 372/10000 population in WB project states when compared with the others, which rated as 292/10000. In Tamilnadu, it was almost double (191%) the performance of other states with 556/10000 population.

Conclusion

WB project paved a way to increase the cataract surgery performance, productivity of the organisation

as well as the individual ophthalmologist in these seven states. Though there was no survey done to see the prevalence rate of blindness after implementing this project to support with our data, we can confidently accept that the prevalence of cataract blindness in these districts has been brought down remarkably. WB project has been playing an important role in reducing blindness that it proves necessary to be extended to other states of the country and continue this project in the existing states to accomplish the mission of vision 2020.