“...the undertaking to reduce health inequalities will remain an empty gesture unless radical steps are taken by governments to seek better information, give priority to healthier life styles and monitor the effects of those on the health of the population as a whole and on the poorest groups in particular”.

-Sir Douglas Black (The Black Report on health inequalities in UK was named)

Introduction
Indian eye care delivery system largely depends on private (both for and not-for-profit) provision. However, eye care financing is mostly through the support received from government, international agencies and hospital/eye care provider’s own resources (user fees and other revenue). It is more likely to be a system with private provision but with different means of financing. India was the first country to launch the National programme for Control of Blindness in 1976. During 1994-2002, the World Bank supported assistance to 7 major states, estimated to contribute 70% of the country’s cataract blind. It is believed that the volume of cataract surgery has steadily increased after the implementation of this programme. Cataract Surgery Rate is estimated to be 3700 per million populations currently.

These efforts certainly need to be appreciated. However it is also important to ask if the Indian eye care system has ensured equity? The World Health Organization has operationally defined “equity in health” as “minimizing avoidable disparities in health and its determinants –including but not limited to health care-between groups of people who have different levels of underlying social attributes”¹. Equity in eye care is no exception to disparities between different social groups and this article tries to expound some issues that constrict equity in eye care in India.

Geography and Resources
Blindness in developing countries, as well as in India, is most commonly found in rural, often remote underdeveloped areas². Disparities in the prevalence of blindness between urban and rural areas in districts also prevail. At least 70% of India’s population are in rural areas and paradoxically 70% of the eye care resources in the country are in urban areas. People who live in tribal belts and mountains are the most underserved among all. In addition, access to health care facilities, literacy levels, logistic problems, and patient perceptions attribute to geographic inequity in India.

There are an estimated 11,000 eye surgeons in India with an average ratio of 1 surgeon for about 1,00,000 population. The major issues are that, outputs of eye surgeons are non-optimal and it is estimated that 50% of qualified eye surgeons are “non-operating” surgeons practicing medical ophthalmology/ refraction services or providing general medical care. Added to this, there is a wide disparity in distribution too. Eye surgeon-population ratio varies from 1: 20,000 in urban areas to 1: 2,50,000 in rural areas. This difference has led significantly to the differences in services offered and utilization.

There are around 0.64 ophthalmic assistants/
nurses per 1000 population. While the desired eye surgeon-paramedic ratio should be 1:3 to 1:4, there is less number of adequately trained/qualified paramedics as compared to eye surgeons. The surgeons therefore, have to sometimes perform jobs like refraction, pre-operative care and undertake routine diagnostic tests.

The hospital beds available for eye care in India are 2.59 per 1000 population. Eye care services tend to remain confined to larger towns and cities. NGOs play a very active role in blindness prevention activities in India. Many have their own or supported eye hospitals. But a significant concern is that these NGO facilities including the government and private sector are usually located in urban or on the periphery of urban areas. Remote and socio-economically backward populations remain underserved.

Gender

Gender differences in prevalence of blindness have been reported in all surveys of blindness in India. The important reasons for this difference can be attributed to longer life expectancy, higher occurrence of eye diseases and lower utilization of eye care services with females compared to males. Cataract surgical coverage rates are 1.2-1.7 times higher in males than in females. Cataract blindness is envisaged to be reduced by about 12.5% if women received cataract surgery at the same rate as men. Women often have less access to family financial resources to pay for eye care or transportation to reach a hospital. In addition, blindness is often viewed as an inevitable consequence of aging and women are less likely to have social support in a family to seek care. Moreover, female literacy (especially among the elderly) is low and women are less likely to know about the possibility of treatment than men.

Utilization

Inequity also exists in services utilization patterns. Studies in India has reported that cataract patients utilized services that were provided by the eye care camps in the vicinity of their residence more, compared to primary health care centres, indigenous practitioners and hospitals in the government sector that were rarely utilized. Easy accessibility, free services, reputation of the ophthalmic team and advertising were the major motivating factors that were cited by respondents for the utilization of the different facilities. Monetary constraints, distance, lack of professional trust, perception with regard to the seriousness of the eye problem, and inability of family to escort the handicapped individuals were the major reasons that were cited for not consulting different health care facilities.

Outcomes

Public health investments in eye care services is high in developing countries and usually monitored by output and not quality. There are no regulatory protocols and accreditation for quality of services and this has led to a situation where there is a wide variation in outcomes. AJ Singh et al reports in a study that patient satisfaction after IOL surgery was high compared to conventional surgery. Almost half of the patients operated in government surgical camps were dissatisfied with the outcomes and 36% were reported to be blind after the operation. Type of provider, type of surgery and age were significant predictors of poor outcomes in the study. Recent data suggest that 25-40% of operations fail in many rural areas. This unacceptably high rate is due to poor-quality surgery and inadequacy or lack of thick spectacles needed after operations done without an intraocular lens- a type of surgery with poorer results, which still accounts for about half of cataract operations in India. In spite of the mandate by the government of India that only IOL surgeries should be done, the coverage of IOL surgeries is only around 60%. Trained IOL surgeons and attitudinal blocks are important reasons attributed to the disparity in technology adopted.

Priorities of National Policy

There has been too much emphasis on Cataract intervention under the National Programme for Control of Blindness. Other problems like Glaucoma, Refractive Errors, Diabetic Retinopathy, Corneal Blindness, Childhood Blindness, Low Vision has received low attention. Dandona et al has reported in a population-based study in Hyderabad that much of the blindness in the population was due to non-cataract causes and it was recommended that a comprehensive policy for blindness that includes prevention, early detection, and treatment of other causes of blindness might be more beneficial.
Training in these sub-specialities is available only at a few tertiary level institutions and trained eye surgeons in these areas are inadequate to meet the needs of the country.

**Conclusion**

The various equity issues mandate the need for the national programme to develop a more comprehensive eye care policy including prevention, early detection and treatment of all major causes of blindness. It needs to inculcate the various equity issues and reorganize itself in order to make it a pro-equitable programme intended to serve the Indian population living under absolute poverty. Equity in eye care system can be measured as to whether the eye care delivery system is responsive to the legitimate expectations and needs of people with eye diseases and ensuring fairness on financial burden of people. Service delivery and cost recovery methods like that of Aravind Eye Hospitals that subsidizes eye care to the poor by charging appropriate price from patients who can pay according to their paying capacities is a model worth looking into, to ensure fairness in financing and provision of services. Good quality outcomes and increased utilisation patterns can be consequential through standardized protocols and creation of accreditation bodies. Incentives for ophthalmic personnel willing to work in rural underserved centres may be adapted like in the case of Nepal where an ophthalmologist serving in a rural eye hospital gets 3-4 times higher pay than an ophthalmologist in a urban hospital. The Government and international agencies can reduce gender inequality through higher reimbursement for females undergoing surgery. With evocation to these issues, eye care policy makers should refine the current policy guidelines to address the issue of inequalities in eye care in India.

**References**