ROP is a major cause of blindness in children in many middle income countries including India.

- India has the highest number of preterm births - 3.5 million annually in 2010.
- Up to 18,000 infants will go blind every year in India unless control is scaled up.
- Prevention of blindness from ROP requires collaborative efforts from all government and other agencies.
- A strong policy framework is the need of the hour to prevent infants going blind from ROP.
The problem

Retinopathy of prematurity (ROP) is a potentially blinding eye condition which affects infants born preterm. Babies born at or before 34 weeks gestational age (i.e., 6 or more weeks preterm) or weighing less than 2000gms at birth are at greatest risk.1 ROP is a major cause of blindness in children in many middle income countries2 and is becoming an increasingly important cause in India, as neonatal services expand and more preterm babies survive.3,4

ROP was first described almost 80 years ago1 and the risk factors are also well known i.e., low gestational age, inadequately monitored supplemental oxygen from immediately after birth, infection and failure to gain weight after birth. Clinical trials have also clearly demonstrated that urgent laser treatment for the sight-threatening stages of ROP is very effective at preserving vision.5

Studies show that countries with infant mortality rates (IMRs) in the range 9-60/1000 live births are the most affected (Figure 1).6 In countries with high IMRs, most preterm infants do not survive. At the other end of the spectrum countries with very low IMRs have low rates of ROP blindness as neonatal care services are of high quality and ROP screening and treatment services are available.

Figure 1. Proportion of blindness due to ROP, by infant mortality rate for the year 1999.
The cost of setting up a ROP screening and treatment program in a cluster based on the Trust-supported program (i.e., in one medical college neonatal unit and 4 SNCUs in neighbouring districts) is approximately Rs 40,00,000 per cluster, with annual running costs of Rs 60,000 per cluster. A recent study in Brazil estimated that the incremental cost of integrating screening and treatment for ROP was less than 1% of the cost of providing neonatal care.21

A study in Mexico and the USA estimated the costs to families of raising a blind child, and the lost productivity of carers and ROP blind individuals. These costs were considerable in both countries: in Mexico and the USA the incremental net annual monetary benefit of providing a service to prevent blindness from ROP was $206,574,333 and $205,906,959 respectively.22

The WHO/UNICEF initiative Every Newborn: An Action Plan to End Preventable Deaths, states that “a healthy society is one in which women and adolescent girls, newborns and children survive and thrive.”23 The same applies to children who are born preterm.

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