
Downloaded from: http://researchonline.lshtm.ac.uk/3458/

DOI:
explore the risk factors of VADD-related childhood blindness. 

Results: Prevalence of childhood blindness in Kishoreganj was found to be 1.03/1,000 children; 32.7% of all children with severe visual impairment/blindness (SVI/BL) had lens disorders leading to blindness. Corneal opacity was the cause of SVI/BL in 23.4% of the study children. Thirty per cent of children were severely visually impaired or blind due to hereditary diseases and 27.1% were severely visually impaired or blind due to childhood factors. Overall, 37.8% children were severely visually impaired or blind due to treatable eye conditions. Illiteracy of mother (odds ratio [OR]= 2.45), illiteracy of father (OR= 1.74), mother’s disease in pregnancy (OR=3.74), child not receiving vitamin A capsule during diarrhoea (OR=5.01), and child not receiving vitamin A capsule during measles (OR=3.88) appeared as significant risk factors for VADD-related childhood blindness. The following were found to be significant protective factors against vitamin A deficiency in children: child immunised against measles (OR=0.10); colostrum given to child (OR=0.15); child breastfed (OR=0.13); child given dark green leafy vegetables (OR=0.01); child given meat/fish/eggs (OR=0.08); oil/fat used in child’s food (OR=0.14); vitamin A capsule given to child in last year (OR=0.31); vitamin A-rich food eaten during pregnancy (OR=0.02); and anthelmintics given to child (OR=0.15).

Conclusion: A comprehensive and integrated programme is needed to control the high prevalence of childhood blindness in the Kishoreganj district. The control programme should include primary prevention strategies for VADD-related blindness, strategies to identify children with eye disease at an early age, and referral and treatment of children with cataract. These programmes should take a primary eye care approach to highlight the risk factors and protective factors of VADD-related blindness in children.

Use of key informants in determining the magnitude and causes of childhood blindness in Chikwawa district, southern Malawi

Khumbo Kalua
Senior Community Ophthalmologist,
Lions Sight First Eye Hospital, Blantyre, Malawi.
Email: khumbokalua@yahoo.com

Background: Population-based studies to determine the magnitude and causes of childhood blindness require very large sample sizes and are very costly. Alternative methods such as the key informant method (which is cheap and easy to use) have been found to be as reliable as population-based studies in settings where the population is very dense.

Aims: To determine the magnitude and causes of childhood blindness in Chikwawa district, Malawi, using the key informant method; to see how this method can be used in a setting of low population density, where the population is widely dispersed.

Methods: Key informants are local people who know their community well. They were randomly selected by the communities themselves and trained for one day in techniques to identify children in the community who are blind. Each key informant covered an average of 4–7 villages which were widely dispersed. Identified children were examined by the ophthalmologist to confirm the diagnosis.

Results: A group of 44 key informants was selected and trained. There were more female (80%) than male (20%) key informants. The key informants correctly identified 37 children who were blind in 196 villages (86% of the expected number from the area). The prevalence of childhood blindness was found to be 0.09%. Cataract was found to be the most common cause (35%) of childhood blindness, followed by corneal scarring (22%).

Conclusion: The key informant method was found to be cheap and useful in identifying children who are blind, even in areas where the population is widely dispersed. We recommend that this method be used to identify children who are blind in other districts of Malawi and where population-based surveys cannot be conducted.