

Preventing blindness in children by integrating eye health into child health policies and systems

Joint Principle Investigators

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SUMMARY

Our consortium will refine and evaluate an integrated, primary care level child eye health systems model (hereafter called "the model"), as a sustainable and scalable approach to reduce avoidable blindness in young children by increasing access to primary eye care in Tanzania and Nepal.

Globally >70.2 million children have sight loss, 1.4 million of whom are blind. Up to 80% live in low resource settings. Poor vision in early childhood affects all aspects of development which impacts their education, employment, and wellbeing. Blind children are also more likely to die than sighted children, and carers can become anxious and depressed, with negative impacts on marriages. Most blind children are born blind from congenital conditions or become blind before the age of 5 from acquired conditions. Half of all blindness is from avoidable causes. Primary level child health care does not currently include eye care.

AIMS AND OBJECTIVES

Aims

1. Assess health systems readiness at primary level to deliver child eye health in Tanzania and Nepal.
2. Evaluate the effectiveness and cost-effectiveness of the integrated child eye health system model.
3. Identify health policy factors affecting the scale up of integrating eye health into child health systems

Objectives - listed under the following work packages (Study):

Study 1 To assess health system readiness at the primary level to deliver child eye health

Study 2 To estimate the effectiveness of the model in a stepped edge, cluster randomized controlled trial

Intervention package ("integrated child eye health systems model")

The package of interventions is based on evidence from previous studies and input from stakeholders. These will be reviewed and finalized in both countries after Study1.

- Training in eye care for primary healthcare workers by integrating eye care into routine IMNCI in-service training (health workforce)
- Supportive supervision for eye care, including ongoing quality improvement (service delivery)
- Arclights provided, a low-cost eye screening tool, validated in low resource settings (essential device)
- 'Road to Health Chart' includes eye screening (health information)
- IMNCI clinic registers and database include eye conditions (health information)
- Referral pathways strengthened (service delivery)

Integrated Management of Newborn and Childhood Illness (IMNCI) training will be delivered using standard approaches in each country i.e., by Ministry of Health IMNCI trainers, covering all childhood conditions. The primary outcome of the trial is the number of children identified with eye conditions. Secondary outcomes are the number of children with mild conditions who are correctly managed and the number with serious eye conditions who are referred and who access and receive high quality care.

Study 3 To investigate implementation, mechanisms of impact and contextual factors which influence the outcomes of the model in a process evaluation which will run alongside the trial

Study 4 To estimate the incremental cost and cost effectiveness of the model

Study 5 To understand policy factors enabling and hindering the sustainable scale-up of the model