

# Joint position statement: Strengthening eye screening for newborns and pre-schoolers in Malaysia

The Malaysian Society of Ophthalmology, the College of Ophthalmologists, the Malaysia Advocacy for Myopia Prevention, the Association of Malaysian Optometrists, the Malaysian Association of Practising Opticians, and the Malaysian Paediatric Association firmly recommend an all-of-Malaysia effort to strengthen eye screening for all children nationwide in Malaysia, especially for newborns aged 0–30 days and for preschoolers aged 5–6. Our position is supported by colleagues from the Asia-Pacific Paediatric Retina Association (APPREA).

Normal vision is important to the development and quality of life in children as well as to their lifelong education, social skills, and contribution to the national economy. Early identification and treatment of vision impairment can identify and manage visual impairment and its related human, health, economic, educational and societal burdens. Therefore, we strongly advocate a nationwide eye screening guideline and comprehensive nationwide program to safeguard the vision and health of newborns and preschoolers, our youngest citizens.

## **Vision impairment is common in children**

Ocular conditions such as retinopathy of prematurity (ROP), congenital cataracts, refractive errors, strabismus, and amblyopia are significant causes of childhood blindness and visual impairment. Data from 2023 from the Ministry of Health estimated the prevalence of ROP to be 12.9% among premature infants < 32 weeks in Malaysia. A 2016 study in Malaysia showed that visual impairment was present in 12.5% of children aged 5-6 years old, with 61.0% having visual impairment in both eyes. These numbers are staggering and could even be under-reported as Malaysia does not have a nationwide eye screening program.

Left untreated, these conditions can lead to irreversible vision loss and developmental delays, which in turn lead to educational gaps and a long-term reduction in national economic output, in addition to the severe human cost, suffering, and burdens of vision loss.

## **Current practices in Malaysia are not adequate: we must learn from international practices**

Newborn eye screening is not consistently implemented in Malaysia, and preschool vision screening is often limited to urban areas. A comprehensive nationwide program is essential to address these gaps and reduce the lifelong burden of preventable blindness.

Several countries have successfully implemented newborn and preschool eye screening programs:

- **Canada, Italy, the Netherlands and the United States:** Initiated vision screening during infancy throughout the schooling period.
- **Canada:** Targets infants and children aged 3-5 years old, screened by nurses and trained staff.
- **The Netherlands:** Targets 1-month old infants to children aged 6 years old, screened by physicians or nurses.
- **The United Kingdom:** The UK National Screening Committee recommends vision screening for children aged 4–5 years old, under the responsibility of local authorities.
- **India:** The Rashtriya Bal Swasthya Karyakram (RBSK), launched in 2013, includes vision screening for children.

These programs underscore the feasibility and benefits of systematic screening in diverse healthcare settings, including middle-income countries, offering valuable models for Malaysia's own national program.

## **Implementing a nationwide eye screening program for children has three important benefits**

We believe that there are three important benefits from a nationwide eye screening program for children. One, we can improve health outcomes for children. Early detection and treatment of eye disorders can prevent lifelong visual impairment, reducing the burden on individuals, families, and the healthcare system.

Two, we can help deliver educational and developmental gains for children. Good vision is crucial for learning and development during schools and during a lifelong career. Managing visual impairment early improves educational attainment and future productivity.

Three, we can achieve economic benefits. In the short-term, preventing childhood blindness and visual impairment leads to substantial cost savings. Studies from the Netherlands, England, Wales and Romania showed that screening for amblyopia in children aged 4–5 years old are cost-effective in all 4 countries. In the long-term, healthcare costs of more expensive curative interventions can be reduced, and economic gains from higher productivity can be realized.

**We recommend an inter-agency task force for good vision in children**

The health of children in Malaysia is multi-agency, involving the government agencies responsible for health, education, community development, rural development, and economy. Therefore, we recommend creating an inter-agency task force (IATF) dedicated to good vision in children.

This IATF can conduct relevant stakeholder engagement to co-create the roadmap for a nationwide eye screening program for children, including mobilising political and financial capital. The Health Ministry can take the lead to pilot in specific locations to assess the feasibility and plan for a nationwide scale-up. The Education Ministry can launch public awareness initiatives together with NGOs and scientific associations, on the importance of eye screening for preschoolers.

By taking these steps, Malaysia can build a robust and sustainable vision screening program that ensures every child has the opportunity to see a brighter future.

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