



Pre-School Eye Screening Initiative (PESI)

A Northern Territory Election Policy



**Brien Holden
FOUNDATION**



RANZCO



The Royal Australian
and New Zealand
College of Ophthalmologists
THE LEADERS IN COLLABORATIVE EYE CARE



**The Fred Hollows
Foundation**

Summary

Optometry Queensland Northern Territory, Brien Holden Foundation, The Fred Hollows Foundation and the Royal Australian and New Zealand College of Ophthalmologists (RANZCO) are calling for a comprehensive **Pre-School Eye Screening Initiative (PESI)**, to provide all pre-school age children in the Northern Territory with free vision¹ screening. Those children whose screening results indicate they may have a vision related issue will be referred to an eye health professional for a full examination, with follow-up communication with their parents, carers, or kin and accessible referral pathways.

The PESI will be aligned with Vision 2020 Australia's **National Framework for Vision Screening for 3.5 to 5 Year Olds** and informed by similar pre-school child screening programs in other states and territories.

It will be implemented as an enhancement to the **Healthy Under Five Kids (HU5K) Program** and will utilise the Territory's existing child health workforce of independent lay screeners. It will leverage HU5K infrastructure and service delivery models, including community health centres, remote health centres, Aboriginal Medical Services and child health nurses, other trained health workers and screeners. It will also coordinate with the **Visiting Optometrists Scheme** and **Ophthalmology Outreach** through Royal Darwin Hospital. Optometrists and/or ophthalmologists will be the first point of call to re-assess children who have been identified with an eye condition the school vision screening. Similar children's vision screening models with proven effectiveness include Queensland's **Primary School Nurse Health Readiness Program (PSNHRP)** and NSW's Statewide **Eyesight Preschooler Screening (StEPS)**.

Background

Vision 2020 Australia's **National Framework for Vision Screening for 3.5 to 5 Year Olds** makes clear that good vision is critical to childhood development and education and that pre-school vision screening is necessary to help detect visual problems and prevent life-long vision loss in children.

Up to **90%** of eye conditions are treatable if they are detected early enough. This makes it vital that eye health issues in children are identified and treated in a timely way, particularly as we know that children with undetected or untreated vision issues do worse at school as well as being disadvantaged more broadly.

¹ Access Economics (2010) Clear Focus: The Economic Impact of Vision Loss in Australia in 2009, updated to 2021 dollar values by Health Consult (2021), Vision 2020 Australia, accessed 1 October 2022.

The Pre-School Eye Screening Initiative (PESI)

Each year, around **3,000** Northern Territory children reach the age when they start pre-school. Under the HU5K Program, children under five in the Northern Territory have access to broad health screening. This screening may include questions about the child's vision and in some cases an assessment using the **LEA paediatric vision test system**.

However, it is important that all pre-school age children receive an eye screening that accords with the recognised requirements in Vision 2020 Australia's **National Framework for Vision Screening for 3.5 to 5 Year Olds**. If the screening indicates that the child may have a vision related issue, it needs to be followed up with a full examination by an eye health professional and access to affordable referral pathways.

The PESI will focus on the three core components of effective pre-school age eye screening, as outlined in the **National Framework**, namely:

- Children between **3.5 and 5-years-old** represent an age young enough for the visual system to be amenable to the treatment of significant vision conditions such as amblyopia, strabismus, and refractive errors.
- Existing screening systems should be leveraged, and primary school health nurses upskilled to lead a children's vision screening program.
- Post-screening follow-up measures must be embedded in all vision screening programs, as this helps to ensure that children in need of treatment and/or monitoring receive appropriate and timely intervention.



How the PESI will work

Nurses, including school health nurses and other health workers and screeners who provide health screening under the **HU5K Program** will be trained in children's eye screening, assessment, and recording. This will be done by enhancing the current HU5K Program education modules. As part of their training, screeners will undergo a period of supervised practice as per the accreditation process and protocols for screeners in **QLD's PSNHRP** and **NSW's (StEPS)**. Screening services would receive the necessary equipment and resources to undertake the vision screening.

Clinical protocols, systems and documentation will be developed for the PESI eye screening and assessment, and for the parental consent and data management arrangements, including the recording and provision of the screening results to the child's parent, carer, or kin.

Where the vision screening indicates that the child may have a vision related issue, their parent, carer, or kin will receive a referral and encouragement to organise a full eye examination by a nominated eye health professional (for example, an optometrist or an ophthalmologist), in accordance with agreed referral arrangements.

The health professionals who receive the referral will help to facilitate the full eye examination by organising booking and recall reminders. Child Health will follow-up to check that the booking has been made, the eye examination has been undertaken, and the recommended treatment plan is being followed by the family.

The PESI will be developed in collaboration with key eye health organisations, including **Vision 2020 Australia, The Fred Hollows Foundation, Brien Holden Foundation, Community Controlled Health Organisations, RANZCO and Optometry Australia**, as well as with **individual Northern Territory eye health practitioners** and **community health services**.

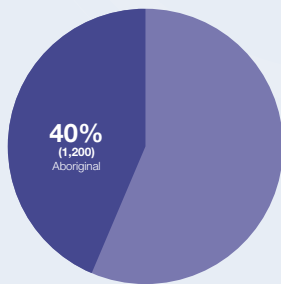
The PESI will align with the National Framework and take on board the learnings from similar pre-school eye screening programs in other jurisdictions, including NSW and QLD. It will utilise existing infrastructure through the HU5K Program, and connect with the **Visiting Optometrists Scheme**, and **Ophthalmology Outreach** through Royal Darwin Hospital.



Image courtesy of Brien Holden Foundation.

Benefits

Around **3,000** children enrol for pre-school in the Northern Territory each year, **40 per cent** of who identify as **Aboriginal** or **Torres Strait Islander**.



Based on the evaluation of the similar **Statewide Eyesight Pre-Schooler (StEPS)** program in NSW, it is estimated that **8 per cent** or **240** of the pre-school age children screened in the Northern Territory each year will be identified as requiring a referral to an eye health professional, with **90 per cent** or **216** of these children requiring treatment or further review.



Implementing a similar program, adapted to the Northern Territory's context and diverse community, will have a substantial positive impact on the education and lives of these children during their school age years. The early identification of eye conditions that have the potential to deteriorate over time if they remain undetected will also reduce the likelihood that these children will have their vision impaired later in life.

There are also longer-term, flow-on benefits for the Northern Territory health systems and the Northern Territory economy by identifying and treating eye health conditions in children that, over time, can result in a deterioration in individuals' health and economic engagement. Finally, the introduction of pre-school eye screening will help to increase the overall level of public awareness of the importance of regular eye examinations throughout life.

Cost

Based on the StEPS evaluation, updated by CPI and with a **50 per cent** per screen contingency factored-in for the remoteness of Northern Territory communities, it is estimated that each screening will cost **\$60** in **2024**. This equates to an estimated **\$180,000 per annum** for **3,000 screens**. It is estimated that there will be one-off, upfront cost of **\$150,000** for screener training and the development of protocols, documentation, systems, and communications. With a **\$50,000** evaluation in Year 3, the total estimated cost of PESI is **\$740,000** over **3 years**.