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BUDGET SUBMISSION

2024 - 2025

**Vision
20/20
Australia**

**National peak
body
for the eye health
& vision care
sector.**



We respect and honour Aboriginal and Torres Strait Islander Elders past and present.

We acknowledge the stories, traditions and cultures of Aboriginal and Torres Strait Islander peoples and recognise their continuing connection to land, waters and community.

Artwork by Timothy Buckley - Iris

About Vision 2020 Australia

Vision 2020 Australia is the national peak body for the eye health and vision care sector.

It represents over 50 organisations involved in local and global eye health and vision care, health promotion, low vision support, vision rehabilitation, eye research, professional assistance and community support.

A range of Vision 2020 Australia members are making submissions to the annual budget process. The proposals in this Vision 2020 Australia submission have been developed to complement those being proposed by individual members.

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Executive Summary

Vision loss costs the Australian economy \$27.6 billion annually. [1] It is estimated that over 14 million Australians have one or more long-term eye conditions; of these, more than 150,000 have partial or total blindness. [2] Eye disorders are one of the most common long-term health problems experienced by Australian children and can exist without any signs. [3] The risk of developing eye conditions then continues to increase with age, with almost four million women and men aged 65 years and older affected. The five most common eye conditions in Australia are preventable and/or readily treatable, in fact 90 percent of cases can be prevented or treated with access to early detection and management, including simple and cost-effective treatments like cataract surgery and spectacles. [4]

Aboriginal and Torres Strait Islander people are disproportionately impacted, experiencing blindness and vision loss at three times the rate of other Australians, accounting for 11% of the health gap. [5]

Untreated vision problems in children can affect literacy, educational performance, social and emotional development, and have been linked to significantly lower NAPLAN performance compared to peers with normal vision. [6] Vision loss has significant social and economic costs for adults as well, with vision impairment and blindness associated with double the rates of falls, three times the risk of depression, four times the risk of hip fractures; and consequently, greater utilisation of health care, aged care (including earlier entry to residential care), and social services. [7]

With access to the right support and services, all Australians with vision loss can remain independent and engaged in the community. However, failures in government policy and the impacts of the COVID-19 pandemic have led to growing wait lists for eye care services and treatment, which means key opportunities to prevent avoidable blindness are being missed. Addressing inequities in eye care will help reduce health spending and free up resources, prevent conditions and injuries that cost us more in the long term and ensure every Australian has the best possible chance of remaining independent and connected.

Investing in eye health and vision care research will lead to innovative advances in treatment and prevention and will ensure that all Australians can access world-leading treatment and support when they need it.

With 50 percent of the population predicted to require eyecare services by 2050, the time to act is now. [8] This submission calls for investment from the Government to ensure that Australians can access the eye care services they need, when they need them by -

1. Supporting a self-determined future for First Nations eye health
2. Ensuring eye care, early intervention and education are accessible for all Australian children including those with irreversible vision loss and blindness
3. Investing in eye health and vision research.

1. Support a Self-Determined Future for First Nations Eye Health

Provide \$63.1 million to improve eye health for Aboriginal and Torres Strait Islander People

Eye diseases and vision problems are the most common long-term health conditions reported by Aboriginal and Torres Strait Islander people. [9] Concerningly, blindness and vision loss are three times more common among First Nations people relative to other Australians. This discrepancy is partly attributable to reduced access to eye care services. [4] Notably, approximately 90 percent of this blindness and vision loss is preventable or treatable if detected early. [4] Addressing avoidable blindness is a key priority identified by the Government in the National Aboriginal and Torres Strait Islander Health Plan 2021-2031. [10] Despite substantial government investment, significant gaps persist in meeting various eye care and treatment needs.

As we look ahead to the future of Aboriginal and Torres Strait Islander eye health, it is crucial to embed the foundational principle of supporting self-determination for First Nations Australians, as enshrined in the National Agreement on Closing the Gap. [11]

Vision 2020 Australia advocates for a health system strengthening approach to First Nations eye health. This approach encompasses supporting First Nations leadership, strengthening the First Nations health workforce, and enhancing eye health service delivery within First Nations communities. The proposed measures outlined below are aimed at firmly establishing a self-determined future for First Nations eye health, each garnering the endorsement of Vision 2020 Australia members:

1. Fund the establishment of the First Nations Eye Health Alliance

The Vision 2030 – Workshop report [12] provides insight into the vision and goals for the First Nations eye health sector, as expressed by Aboriginal and Torres Strait Islander individuals working in eye health. This report emphasises the need for a First Nations eye health peak body to lead the sector. The First Nations Eye Health Alliance (FNEHA), a self-determined Aboriginal and Torres Strait Islander corporation, has been incorporated to fulfill this crucial role.

Government investment in FNEHA will facilitate the establishment of this entity, fostering a strong and sustainable Aboriginal and Torres Strait Islander Community Controlled sector, and supporting the self-determination of First Nations people and their communities.

Cost: \$3.3 million over four years to support the establishment of the First Nations Eye Health Alliance.

2. Fund the next National Aboriginal and Torres Strait Islander Eye Health Sector Plan through the First Nations Eye Health Alliance (FNEHA)

As the Roadmap to Close the Gap for Vision and the Strong Eye's Strong Communities strategy retires, there arises a need for a new First Nations led sector plan. This plan is crucial for cultivating collaborative approaches to improving eye health outcomes for First Nations people and their communities.

The First Nations Eye Health Alliance (FNEHA), a self-determined Aboriginal and Torres Strait Islander corporation, is dedicated to the prevention of vision loss and blindness in First Nations

communities nationwide. As an Aboriginal and Torres Strait Islander led entity, FNEHA is well-positioned to lead the development of this essential sector plan, working closely with key stakeholders from the First Nations eye health sector across the country. Investing in FNEHA not only ensures the plan's success but also aligns with the overarching goal of empowering First Nations communities in shaping the future of First Nations eye health.

Cost: \$1.5 Million over four years to support the First Nations Eye Health Alliance to lead in the development, and contribute to the implementation and evaluation of, the next National Aboriginal and Torres Strait Islander eye health sector plan.

3. Strengthening Eye Health Capability and Capacity within the First Nations Health Workforce

a. Strengthening Technical Skills through “Eye-Health Upskilling” Units.

Aboriginal Health Workers play an integral role in health service delivery for First Nations people, encompassing individual case management, health system navigation, and ensuring culturally safe service delivery. [13]

Strengthening the technical proficiency of local community health workers in the field of eye health is fundamental to the development of sustainable and comprehensive eye health services within communities. To address this need effectively, a two-pronged approach is proposed: embedding eye health into the core curricula for Aboriginal Health Workers and upskilling the existing workforce.

For the success of this initiative, sustained funding is essential to support First Nations-led registered training organisations to deliver free “eye-health upskilling” units for Aboriginal Health Workers. These units of study, based on existing units such as [HLTAHCS013 – Provide eye health care](#), jointly developed by the Australian Government and the Government of the Northern Territory, or equivalent units in other jurisdictions, will empower Aboriginal Health Workers with the skills to conduct eye health assessments, address minor and emergency eye health issues, and provide ongoing support for clients. Participants will also acquire the ability to offer resources and information about eye health, contributing to a more informed community.

This strategic initiative not only aims to enhance technical competencies but also seeks to nurture local capacity, creating a pathway for career growth into program management and leadership roles within the eye health sector.

Cost: \$2.6 Million to provide free “eye-health upskilling” for at least one Aboriginal Health Worker at each Aboriginal Community Controlled Health Organisation (ACCHO) across Australia

b. Building capacity and Ensuring Resources for Eye Health

i. Case Management and Local Support Services:

Aboriginal Health Workers, having undergone specialised “eye-health upskilling,” are uniquely positioned to play a crucial role in delivering vital eye health-related case management and local support services within community-controlled health organisations. Equipped with enhanced technical competencies, these health workers can adeptly navigate the complexities of eye health care, providing tailored assistance and support

to individuals within their communities. Beyond addressing immediate eye health needs, these services significantly contribute to a more integrated approach within the broader health care system.

This funding will empower Aboriginal Health Workers to make a lasting impact on the eye health outcomes of their communities, establishing an environment where individuals receive personalised, culturally sensitive support for their eye health needs. This initiative contributes to the overarching goal of establishing sustainable, community-driven eye care that aligns with the principles of self-determination and comprehensive healthcare.

Cost: \$22.8 million over 5 years to fund 100,000 case management and local support services

ii. Regional Eye Health Managers:

The landscape of eye health services, providers, infrastructure, and community requirements exhibits considerable diversity across Australia. Embracing a regional perspective is crucial to accurately assess population-based needs, refine patient pathways, optimise existing capacities, and address locally identified service gaps, thereby enhancing the overall quality of services. This regional approach not only facilitates improvements on a local level but also serves as a guiding framework for broader system design at a jurisdictional and national level.

The proposed Regional Eye Health Managers are positioned to play a pivotal role in fostering coordination, ensuring the continuity of local care pathways, and contributing to the overall efficiency of eye health services within their respective regions and beyond.

Cost: \$5.8 million over 5 years to fund part-time regional eye health managers employed in 25 regions.

4. Empowering Communities and Improving Access to Services Through Enhanced Outreach Eye Care Services:

Outreach optometry and ophthalmology services play a vital role in ensuring that Aboriginal and Torres Strait Islander people have equitable access to essential eye care. The Visiting Optometrists Scheme (VOS) plays a crucial role in delivering essential eye care services within these communities, while outreach ophthalmology services enable the provision of consultations, treatment (including cataract surgery) and follow-up care at regional and district hospitals.

To ensure the continued success of both VOS and outreach ophthalmology services, it is vital to establish a robust financial foundation, enabling growth and facilitating increased access to eye care services for more First Nations People. A well-supported VOS reduces dependence on external referral pathways, ensuring access to optometry services within communities, empowering communities with more choice and flexibility in managing their eye health. Simultaneously, strengthened ophthalmology outreach programs ensure timely access to essential services for Aboriginal and Torres Strait Islander people.

Investing in bolstering outreach eye care services is a step towards empowering communities to shape their eye health services, promoting self-determination and ensuring sustainable, community-driven eye care for the long term.

Cost:

- **\$2.5 Million per year to provide 29,000 additional VOS-supported eye examinations annually.**
- **\$24.6 Million over 5 years to provide an additional 12,300 outreach ophthalmology services through the Medical Outreach Indigenous Chronic Disease Program (MOICDP), Eye and Ear Surgical Support Services (EESSS) and Rural Health Outreach Fund (RHOF).**

2. Ensuring eye care, early intervention, and education are accessible for all Australian children, including those with irreversible vision loss and blindness

Eye disorders are one of the most common long-term health problems experienced by Australian children. [14] Including health expenditure, lost productivity, and other financial costs, the estimated economic impact of vision impairment in children in Australia is \$624 million per year, or \$1,845 per child. [15]

Vision impairment has a profound impact on the way children learn and develop. Research tells us that 80 per cent of learning is done through sight. [16] If left untreated, eye health problems in children can lead to vision loss or blindness, which can have significant long-term effects on a child's sensory, cognitive, social and language development. [17] Without the appropriate support, children face the risk of adverse educational, employment and health outcomes later in life.

Good vision is therefore integral to development, learning and success later in life, highlighting the critical importance of early identification and treatment of conditions that compromise children's vision.

1. Introduce vision screening for all 3.5 to 5-year-old children

Children's vision screening programs in Australia have demonstrated good return on investment,¹ decreasing blindness in children and outweighing associated health care costs. [18] However, there is no consistent, national evidence-based approach to screening and in some jurisdictions, there is no screening at all, resulting in inconsistent outcomes for Australian children.

In December 2023 the Australian Government released a draft Early Years Strategy 2024-2034, which was developed to shape its vision for the future of Australia's children and their families. The strategy calls for an integrated, whole-of-Government approach that prioritises making supports and services responsive and inclusive to children and their parents.

To ensure all children have the opportunity to get their eyes tested before starting school and encourage a proactive attitude to regular eye testing throughout the schooling years, we recommend the Government adopts the Vision 2020 Australia National Framework for Vision Screening for the early identification and management of vision and eye health problems in 3.5 to 5-year-old children in support of the implementation of the Early Years Strategy (a copy of the framework can be found at Attachment A).

2. Introduce a National Vision Foundational Supports Program for Children with Vision Loss

It is estimated that approximately 6,700 Australian children require orientation and mobility services because of vision-related disability. [19] However, only around 1,700 of these children receive support from the NDIS. [20] The complexity of measuring the impact of

¹ Incremental cost effectiveness ratio of \$13,942 per QALY gained.

progressive vision conditions or diagnosing the cause of vision loss in some circumstances, is resulting in delays for those seeking NDIS access.

Meanwhile, funding sources are increasingly unavailable for children with moderate vision loss, who may not need the individualized support provided by the scheme, but still require additional assistance.

Recommendation 1 by the Independent Review of the NDIS proposed the introduction of “foundational supports” for people outside the scheme. [21]

Before the introduction of the NDIS, the Better Start program for children with disabilities gave access to vision rehabilitation support soon after diagnosis. [22]

With an investment of \$19 million over 2 years, the Government could provide this key support and training to an estimated 5,000 children with vision loss, aged 0 to 18, who are currently missing out on crucial skills they need to keep up with their peers. [23]

We estimate that at least 4 percent of these could be Aboriginal and Torres Strait Islander children, whose families have struggled with the bureaucratic complexities of accessing the scheme.

A National Vision Foundational Supports program, providing 20 hours of specialist therapeutic support following identification of vision concerns, would ensure that every child who is blind or has low vision can access the compensatory learning and capacity building they need to remain independent.

The program, delivered by specialist vision providers with decades of experience, would offer a mix of occupational therapy, orientation and mobility, assistive technology trials and training, and early childhood education.

Participants with moderate vision loss may never need more assistance than this program provides. But for those who need ongoing intervention, the program would create a strong evidence base to be used in the NDIS access and planning process.

Cost: \$19 million over two years to provide foundational support services to 5,000 children with vision loss.

3. Investing in inclusive Australian Eye and Vision Research

Prevent avoidable vision loss and restore sight through the establishment of a dedicated Eye Disease and Vision Loss Mission within the Medical Research Future Fund (MRFF) - \$150M over 10 years²

Australia has some of the world's leading vision researchers undertaking cutting edge research to prevent avoidable vision loss and improve outcomes for people living with blindness or low vision. However, vision loss is not funded in either the first or second MRFF 10-year Investment Plan.

Vision loss costs the Australian economy \$27 Billion per year. [1] By 2050, fifty percent of the population will require eye care services. We have an opportunity to develop innovative technology to prevent this forecast growth and deliver services at greater scale to improve eye health.

Investment in eye health clinical trials and the translation of pre-clinical innovations provide a good return on investment, with every \$1 spent returning a \$10 economic gain (2009 figures). [24]

Australia and its researchers are at the leading edge, but ongoing investment is necessary to continue the good work.

Vision 2020 Australia has led the development of a sector wide research agenda that identifies priority areas for immediate and long-term investment (Attachment B), providing a roadmap for a dedicated vision mission within the Medical Research Future Fund.

An Eye Disease and Vision Loss Mission will enable better understanding of the eye and visual system, develop therapies that prevent or eliminate vision loss, and expand opportunities for societal participation for Australians who are blind or require vision rehabilitation.

In alignment with, and in addition to the priority areas identified by the sector and listed in Attachment B, Vision 2020 Australia also advocates for:

First Nations Controlled Research:

As we look towards a self-determined future for First Nations Eye Health, a critical component involves securing dedicated funding to support research initiatives controlled by First Nations Organisations. First Nations-led research is not only a means to generate valuable insights but also an avenue for building research capacity within First Nations Organisations and nurturing a culture of self-determination in healthcare decision-making.

This initiative aligns with the broader vision of empowering First Nations communities to actively shape the trajectory of their eye health outcomes. By supporting First Nations Organisations in steering their own research endeavours, we take a significant step toward

² This proposal includes funding for Australian Eye and Tissue Banks to recover and allocate end-of-life human eye tissue to eye researchers so researchers can undertake the necessary bench-top investigations of disease discovery, and drug, treatment, and future therapies development. This would assist research and development across the whole spectrum of ocular conditions and wide health conditions (e.g., diabetes, dementia).

strengthening a self-determined and culturally informed approach to improving eye health for First Nations peoples.

This includes ACCHOs and other services providers. The funding is pivotal in enabling service providers to establish collaborative partnerships with research organisations while preserving autonomy and control over the research direction.

ACCHOs, as community-controlled entities, and other service providers play a vital role in understanding the unique healthcare needs of their communities. An investment in First Nations-led research that includes service providers, not only acknowledges the significance of community-led initiatives, but also takes steps towards developing a research landscape that is sensitive to the cultural nuances and priorities of First Nations peoples.

The funding will serve as a catalyst for building partnerships between service providers and research organisations, ensuring that research aligns with the specific health challenges and aspirations of First Nations communities.

Improving Culturally Safe Access to Clinical Trials:

While Australia boasts some of the globe's leading vision researchers conducting groundbreaking studies to prevent avoidable vision loss and enhance outcomes for individuals with blindness or low vision, access to these new and innovative ocular disease treatments for First Nations Australians remains limited. This limitation stems from various barriers, foremost among them being the inadequacy of culturally safe services. To bridge this gap, a dedicated funding stream is essential to promote and ensure culturally safe participation in clinical trials for Aboriginal and Torres Strait Islander people.

Attachment A

National Framework for Vision Screening for 3.5-5-year-olds



National Framework for Vision Screening for 3.5 - 5-year-olds

18 November, 2021

National peak body for the eye health and vision care sector.

**Vision
20/20
Australia**



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Artwork by Timothy Buckley - Iris

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Foreword

Eye disorders are one of the most common long-term health problems experienced by Australian children¹. Good vision is critical to childhood development and education. Therefore, early detection of visual problems, and appropriate and timely treatment of eye conditions is important for all Australian children to help prevent life-long vision loss.

There is broad agreement across the eye health sector that pre-school vision screening is necessary to help detect visual problems and prevent life-long vision loss in children. Vision screening programs in Australia vary widely across the states and territories and could benefit immensely from a National Framework for children's vision screening.

This document outlines a National Framework for Vision Screening for 3.5-5-year-olds. This age range represents an important opportunity as vision can be screened reliably, and identification and treatment of visual problems occurs prior to the commencement of school. The Framework draws on available evidence from local screening programs and protocols such as the New South Wales Statewide Eyesight Preschool Screening Program (StEPS)². Its development has involved extensive consultation with sector experts, including clinicians and a range of organisations involved in eye health. Vision 2020 Australia gratefully acknowledges the sector's contribution, insight, and advice in developing this Framework.

The National Framework's main objective is to help facilitate universal access to integrated people-centred eye care for Australian children. This objective is in line with the World Health Assembly's 2020 resolution on eye health³ and the United Nations resolution of 'Vision for Everyone: accelerating action to achieve the Sustainable Development Goals'⁴.

There are three core concepts that underpin this Framework. Firstly, that children between 3.5-5-years-old represent an age young enough for the visual system to be amenable to the treatment of significant visual conditions such as amblyopia, strabismus and refractive errors. Secondly, that existing screening systems should be leveraged, and the screening workforce should be flexible and broad to maximise access. Finally, 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.

The Framework comprises two sections:

1) **National Minimum Standard for Vision Screening for 3.5-5-year-olds**

An outline of the minimum considerations/inclusions for an effective vision screening program for Australian children.

2) **Post-Screening Follow Up Processes**

An outline of the key considerations and processes that are integral to follow-up care, screening program monitoring and evaluation.

¹ Australian Institute of Health and Welfare (2008), *Eye Health among Australian children*, accessed 16 August 2021

² Integrated Care Strategy (2018), *Evaluation of the Statewide Eyesight Preschooler Program (StEPS) Final Report*, New South Wales Government, accessed 16 August 2021

³ Seventy-Third World Health Assembly (2020), *Integrated people-centred eye care, including preventable vision impairment and blindness*, Seventy-Third World Health Assembly, accessed 30 August 2021

⁴ United Nations, *General Assembly Adopts Resolutions Aimed at Ensuring Global Access to Eye Care, Combating Illicit Trafficking in Wildlife, Highlighting Links with 2030 Agenda*, accessed 30 August 2021

National Minimum Vision Screening Standard for 3.5-5-year-olds

Objective

To ensure all 3.5-5-year-old Australian children have access to integrated and people-centred eye care (IPEC), where vision screening programs with coordinated pathways for referral and follow up will help with early detection of vision problems and facilitate timely treatment.

Overarching principles

The National Minimum Standard for Vision Screening will be underpinned by the following principles:

- Vision screening to be conducted at an age young enough for the visual system to be amenable to treatment of significant visual conditions, including amblyopia, strabismus and refractive error
- Approach aims to maximise coverage and ensure access for all
- Approach to be flexible, leverage existing state/territory platforms and accommodate local community needs, capacity, and infrastructure
- Approach should adhere to the World Health Organization's Screening Programme Guide⁵ and produce valid information, leading to better child health outcomes
- Screening must be supported by effective pathways for referral, follow up and access to appropriate eye care
- Screening must be supported by proactive strategies to improve community and parental awareness, education, involvement and follow up
- A broad workforce should be utilised to maximise reach of the screening program, with all screeners to meet required standards/skill levels
- Data collection, evaluation and reporting to be embedded to drive continuous improvement and transparency.

Pre-screening regimen

Written information provided to parents/carers about vision screening should have the appropriate level of detail, avoid being overly complicated, and should be available in most commonly spoken community languages.

The following materials should be provided to parents/carers prior to the screening:

1. Written information about:

- The screening process
- The importance of vision screening for vision and eye health in children, and
- Common eye conditions affecting children.

Written information should also state that vision screening does not replace a comprehensive eye exam and parents/carers with concerns regarding their child's eyes/vision should consult an eye

⁵ World Health Organization (2020), [Screening Programmes: a short guide. Increase effectiveness, maximise benefits and minimize harm](#), accessed 28 October 2021

health practitioner. Additionally, parents/carers have the right to have their child's eyes assessed by an eye health practitioner at any stage irrespective of the screening outcome in addition/simultaneous to vision screening.

2. Consent form, including parental/carer consent:

- For screening to be conducted
- For screener to connect with relevant educators and community organisations where appropriate to provide feedback to these services, and
- For information collected via screen to be recorded within an information management system for purposes of follow up, evaluation and research (subject to ethics approval and use of de-identified data only).

3. History questionnaire covering the following topics:

- Current eye care/current spectacle wear, and
- Parental/carer concerns regarding child's eyes/vision.⁶

Screening regimen

The primary purpose of the screening is to identify children with significant visual compromise. Given this, the minimum vision screening tests to conduct includes careful inspection of the child's eyes and an assessment of the monocular distance vision of both eyes.

Observation:

- Observe the child's eyes to determine if any abnormalities may be present, which are of concern or could affect either the vision or the child's general comfort.

Assessment of distance vision:

- The monocular distance vision will be measured with the child in their habitual correction state (i.e., wearing distance glasses if they have them, or unaided if they do not have glasses for distance).
- A device which occludes one eye at a time (e.g., eye patch or occlusion glasses) should be used so that the child cannot see through or around during the test.
- Use a distance vision chart with crowded or linear optotypes (e.g., HOTV, LEA chart) that includes equivalent measures for 6/6, 6/9⁵, 6/12 and 6/18⁷ as a minimum. Vision chart should be placed at the manufacturer's recommended test distance⁸.

It is recognised that the final screening regimen adopted may vary by jurisdiction to ensure contextual factors, including workforce availability and cultural appropriation are incorporated.

⁶ Information regarding parent/carer concern will not be used as an independent referral criterion, rather this information will supplement the referral for children who do not pass the vision screen

⁷ It is recognized that 6/9.6 or 6/19 respectively will be the equivalent measure for some distance vision charts

⁸ Emergent technologies, including automated screening tools, are not currently specified for use under the National Minimum Standard for Vision Screening in 3.5-5-year-olds. These technologies should be considered for inclusion where there is appropriate funding and resourcing capacity.

Referral criteria

Outlined below are the criteria to be used by screeners to determine the outcome of the screen. In instances where the parent/carer has indicated the child is under current eye care via the history questionnaire then screeners should advise parents/carers to continue this care for all criteria listed.

'Eye health practitioner' collectively includes ophthalmologists, optometrists, and orthoptists. Where access to an eye health practitioner is not available within appropriate timeframes then the child should be referred to a 'medical practitioner' or 'healthcare worker', which intends to mean a medical physician or healthcare worker who does not have ophthalmic expertise.

It is recommended that each jurisdiction considers the inclusion of secondary screening clinics, which are staffed by a more experienced screener or orthoptist. This will incur additional resourcing and may not be feasible and/or justifiable in all locations. However, these clinics will allow children in the 'unable to be tested'⁹ category to be re-screened, reducing false positive referrals and the burden on public health systems.

Pass	The distance vision is 6/12 ¹⁰ or better in each eye. Referral not required.
Refer	The distance vision is worse than 6/12 but is 6/18 or better in one or both eyes. Parents/carers advised to have their child's eyes tested within <u>eight weeks</u> by an eye health practitioner.
Refer	There is obvious pathology on observation of the external eye(s) that is currently untreated (i.e., where the observed pathology has not been indicated on the history questionnaire). Parents/carers advised to have child's eyes tested within <u>eight weeks</u> by an eye health practitioner.
Refer	Child is unable to be screened (e.g., uncooperative/unable to test). Parents/carers advised to have the child re-screened through a secondary screening clinic OR have the child's eyes tested prior to the commencement of school or within <u>three months</u> (whichever comes first) by an eye health practitioner.
High priority referral	The distance vision is worse than 6/18 in one or both eyes. Parents/carers advised to have their child's eyes tested as soon as possible and preferably within <u>one month</u> by an eye health practitioner.

⁹ New South Wales's Statewide Eyesight Preschooler Screening (StEPS) program found that 53,000 children were referred to an eye health professional after their screening, and nearly 17% were referred under the 'unable to be screened' category.

¹⁰ A retrospective evaluation of vision screening referral accuracy in New Zealand by Langeslag-Smith et al (2015) suggests that adopting a referral criterion of vision 'worse than 6/12' lowers the false positive rate without adversely affecting the negative predictive value of screening. The average age of the cohort analysed in this study was 52±4 months (range 37-70 months).

Langeslag-Smith MA, Vandal AC, Briane V, Thompson B, Anstice NS. Preschool children's vision screening in New Zealand: a retrospective evaluation of referral accuracy. *BMJ Open*. 2015;5(11):e009207.

Screening environment

The screening should be conducted across a broad range of community facilities, and ideally in environments that are familiar and friendly to children as this may aid screening cooperation and uptake. The minimum screening conditions include:

Size	The space in which screening is conducted should allow a testing distance of at least three meters.
Lighting	The screening space should be well lit, without sources of glare or reflections on the vision chart.
Distractions	The screening space should have minimal auditory and visual distractions.
Optimise accuracy	The screening space should be set up to ensure that children waiting to be screened cannot see the chart.

A list of recommended screening locations is outlined in Appendix A.

Screening workforce

Screeners

Wherever possible, vision screening should be conducted by a broad workforce of screeners where there is no perceived conflict of interest. The workforce is likely to comprise mostly of lay screeners, nurses and teachers in most jurisdictions. It is recommended that university students who are completing training in optometry and orthoptics should also be considered for the screening workforce. Screeners should have the following attributes, skills and qualifications:

Attributes/Skills	Experience
	Cultural competency ¹¹
	Communication skills
	Technical skills
Qualifications	

¹¹ 'Cultural competency' in this Framework is defined as an understanding of the diversity that exists across different cultures and committing to an open attitude and preparedness to engage with individuals and groups from culturally and linguistically diverse backgrounds.

Training of screeners

Each jurisdiction should utilise a formal training program for screeners with the following inclusions:

- An initial training and competency package and assessment, that is completed to a satisfactory level by all screening staff upon recruitment
- Training materials/packages should include cultural safety/competency, and privacy and confidentiality components
- An annual professional development and refresher program to help maintain and develop technical skills, that is to be completed by all screening staff
- Development and delivery of the training packages should be conducted by eye health practitioners or experienced screening program staff, who have a strong understanding of the National Minimum Standard for Vision Screening in 3.5-5-year-olds
- Training materials/packages should be reviewed and updated annually by trainers
- Supplementary training for screeners identified with high false-positive referral rates
- Training materials/packages should be delivered through various platforms (e.g., face-face training, webinars, self-paced learning modules) to ensure maximum reach.

Post Screening Follow Up Processes

Background

One of the key challenges encountered to date with vision screening programs is the relatively high rates of children who fail screening but are lost to follow up. As this is a key limiter to the overall goals of vision screening it is essential that sustainable and practical strategies are implemented in this area. The goal is to develop and document a system for follow up that helps minimise the number of children who fail vision screening but are lost to follow up. This document outlines the principles and considerations for referral pathways and follow-up procedures that will optimise post-screening outcomes.

Guiding principles

The Framework recommends each jurisdiction develop and embed follow up processes guided by the following principles:

- Approach to provide clear and consistent guidance regarding how and where to refer for follow up, with the primary objective of supporting timely access to a full eye examination wherever possible
- Approach will be considerate towards parent/carer positions and avoid evoking unnecessary distress
- Approach aims to accommodate a range of settings, populations and workforces
- Approach aims to incorporate strategies to address known barriers (e.g., cost of care) to follow up, and/or support enabling factors (e.g., parental/carer involvement) to follow up
- Approach aims to support connections with community-controlled health organisations and support networks
- Approach will be supported by appropriate information management protocols and systems underpinned by appropriate privacy arrangements, that support a shared understanding of whether follow up has occurred and could support broader data collection and evaluation¹².

Referral pathways

Screened children under current eye care as indicated by the parent/carer via the history questionnaire should be advised to continue this care regardless of their screening outcome. In all other instances, to maximise the potential for the child to receive timely care, it is recommended that wherever possible referrals be made to eye health practitioners in the first instance.

Based on the referral criteria outlined in the National Minimum Standard for Vision Screening in 3.5-5-year-olds the recommended referral timeframes are:

Within eight weeks

- The child does not pass the screening because the distance vision is worse than 6/12 in one or both eyes
- The child has obvious pathology on observation of the external eye(s) that is currently untreated.

¹² Where possible, it would be preferable for this to be operated off an existing platform if it has the capacity to accommodate the required information and protocols. Consideration will also need to be given to how existing state or territory vision screening programs could be leveraged and/or connected to the proposed arrangements.

As soon as possible (preferably within one month):

- The child does not pass the screening and the distance vision is worse than 6/18 (or equivalent)⁷ in one or both eyes.

Systems and information management to support follow up

In selecting an appropriate system for information management it is recommended that the following features are considered:

- Electronic systems are most likely to provide the necessary breadth of access and support efficient follow up¹³
- The information management system(s) should support streamlined processes and enable various parties involved in the screening program's delivery, follow up and evaluation to access information relevant only to their purposes
- The information management system(s) should include functionality for recording the screening results on/offline, facilitate follow up processes, store large data that can be easily accessed and allow extraction of de-identified information for research, analysis and evaluation
- The information management system(s) should have high accessibility and usability, accommodating a diverse range of users, and contain only the core information essential for follow up and data analysis. As this work develops and progresses, there will be a need to consider system features or complementary products that ensures broad compatibility with existing IT systems
- Use of an electronic management system requires appropriate consent, information privacy and cybersecurity controls, and ongoing system support and maintenance
- Linking and/or incorporating vision screening information into existing health databases, such as 'My Personal Health Record' and 'My Health Record' should be considered¹⁴.

Information management

Access to public information regarding the vision screening process, interpreting screening outcomes, and where to access follow up care is important. This will ensure that both screeners and parents/carers can refer to relevant information and resources as they need them, and the information is consistent.

Various mechanisms to support information management on a large scale could be established in each jurisdiction, varying from a program-specific website/portal, through to building the required capability off an existing platform if a suitable option could be identified. Consideration should be given to existing systems in place for the local population, and how these could be leveraged or otherwise connected.

¹³ It is recognised that electronic systems are the ideal option but may not be feasible where there may be significant barriers to accessing the web and/or funding and resourcing. In these circumstances, it may be necessary to consider a hybrid information management system comprising both paper and electronic-based systems.

¹⁴ It is noted that the Australian Digital Health Agency is looking to develop a Child Digital Health Record. If this occurs, further consideration should be given to how vision screening information could be incorporated/linked to this Record.

Under any information management system, access to relevant resources and data would be required by:

- **Parents/carers and general public**

To access information regarding the vision screening program and where to go for screening and/or follow up care.

- **Screeners**

To access information regarding the vision screening program and add screening activities and outcomes.

- **People conducting follow up**

To identify children who require follow up and record the outcomes of that follow up.

- **Program management and/or evaluators**

To access de-identified data for program reporting, quality assurance/improvement and reporting.

- **Researchers**

To access de-identified data for research purposes.

Follow up protocol

Eye care practitioners will have a role to play in conducting follow up examinations and providing basic data on follow up outcomes. Parent/carer involvement is also critical to ensuring follow up care is achieved post-screening, and direct contact with parents/carers about this process would maximise this opportunity for engagement. However, relying on parents/carers for clinical outcomes including diagnosis and management, comes with inherent challenges and can impact the reliability of the information obtained. It is therefore recommended that where it is feasible, eye health practitioners are principally responsible for entering basic follow up outcomes, but this must be balanced carefully to minimise the demand on practitioners' time.

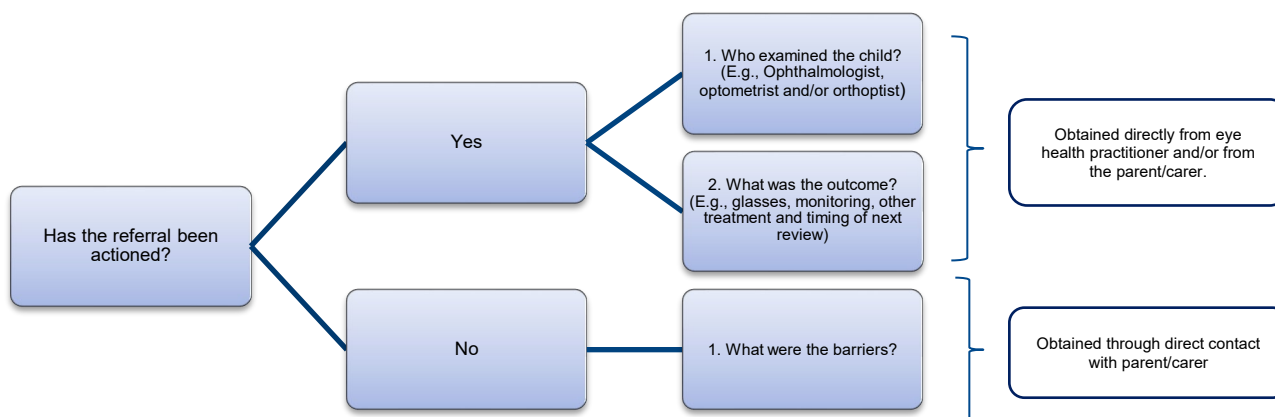
Obtaining additional/supplementary information from parents/carers could also be included, particularly in instances where eye health practitioners have not completed follow up outcomes.

Each jurisdiction should develop and embed a robust follow up protocol specific to its location, available resources, and cultural considerations, with the following inclusions:

- A designated and resourced role(s) within the screening program workforce responsible for monitoring and coordinating follow up of children who were referred after their vision screen
- Progress, outcomes and reported barriers to follow up care should be recorded within the information management system
- In instances where follow up outcomes are outstanding, then there should be at least two documented attempts to contact and engage parents/carers
- Information and discussion about follow up should be available in most commonly spoken community languages.

Figure 1 summarises the key information to be gathered in the follow up process.

Figure 1. Follow up information to be gathered



Evaluation and monitoring

Monitoring progress and outcomes will facilitate future program evaluation(s) and identify opportunities for improvement. It is recommended that each jurisdiction undertake regular evaluations of the vision screening program, including follow up processes.

Objectives of future program evaluation(s) will be to understand:

- Program reach
- Barriers to accessing screening and follow up pathways
- Rates of screening pass/fail
- Referral accuracy
- Acceptability across stakeholders, and
- Feasibility.

The key aspects of the evaluation and monitoring framework should therefore include reporting systems covering:

- Demographics of screened children
- Screening statistics:
 - Consent rate
 - Screens conducted and outcomes
 - Diagnostic categories
 - Accuracy and appropriateness of screening referrals, and
 - Follow up rates and outcomes, including the time elapsed between screening and definitive follow up care.
- Workforce statistics:
 - Composition
 - Geographical distribution, and
 - Labour.

To understand program acceptability, key stakeholders will be surveyed to provide qualitative information regarding their experiences and perceptions.

Reaching children who are not screened before they start school

It is recommended that each jurisdiction consider a range of additional measures to reach children who are not screened before they start school, for example:

- **Catch up screening clinics/visits**¹⁵

Providing additional opportunities for children who were consented but missed the vision screen. The frequency and location of catch-up clinics/visits will depend on demand, workforce availability, resourcing and funding.

- **School entry point survey**

All children to receive an entry point survey upon enrolment of their first year of school to identify children who have not been screened or had their vision tested. In a range of jurisdictions there are existing measures in place to capture this information, and where it is possible these processes will be leveraged, or recommendations provided to enhance the quality of the information obtained.

- **Targeted screening**

For the cohort of children not yet screened or tested, a targeted invitation to vision screening will be provided along with written information about children's vision and the importance of vision screening. Adopting a targeted approach will increase the likelihood of uptake.

¹⁵ The StEPS program found the screening rate was 19% higher in areas where catch up clinics were available.

Closing remarks

The National Framework for Vision Screening in 3.5-5-year-olds will provide an essential foundation for effective vision screening programs nationwide.

Vision 2020 Australia are requesting that the Commonwealth and State Governments adopt the Framework and ensure implementation in each jurisdiction.

A National Framework supported by both levels of Government will facilitate early detection and treatment of vision problems, maximise treatment outcomes and help prevent life-long vision loss in Australian children.

Recommended Citation:

Vision 2020 Australia (2021), *National Framework for Vision Screening for 3.5-5-year-olds*.

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- Brien Holden Foundation
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- Keratoconus Australia
- National Aboriginal Community Controlled Health Organisation
- NSW Health - Statewide Eyesight Preschool Screening
- Optometry Australia
- Orthoptics Australia
- Sight for All
- The Royal Australian and New Zealand College of Ophthalmologists
- The Royal Victorian Eye and Ear Hospital
- University of New South Wales – School of Optometry & Vision Science
- Victorian Aboriginal Community Controlled Health Organisation.

Vision 2020 Australia Prevention & Early Intervention Committee Members

- Ms Skye Cappuccio
- Mr Timothy Fricke
- Mr Gregory Harper
- Mr Rodney Jackson
- Ms Simone Kenmore
- Ms Margaret Lum
- Dr Frank Martin
- Ms Marion Rivers
- Dr Sue Silveira
- Dr Sandra Staffieri
- Ms Vicki Staikos
- Prof Hugh Taylor
- Ms Lien Trinh.

Appendices

Appendix A – Recommended Screening Locations/Sites

- Aboriginal Community Controlled Health Organisations (ACCHOs)
- Childcare centres
- Child and family health services
- Early intervention services
- Family day care services
- Immunisation clinics
- Kindergartens
- Playgroups
- Refugee services
- School orientation programs.

Appendix B – Implementation Costs & Considerations

Implementation of the National Framework for Vision Screening in 3.5-5-year-olds will be completed at the local level for each state and territory. Various contextual factors will affect local implementation strategies and costs including:

- Existing vision screening systems and workforces that can be leveraged,
- Local population figures and projections, geographical distribution and demographics,
- Existing health record databases and infrastructure, and
- Local government funding priorities.

The NSW StEPS Program Evaluation 2018 is a useful resource and provides some key cost guides, for example:

- It was calculated that 0.32FTE screeners was required per 1000 children,
- The NSW StEPS Program was estimated to cost \$37.37 per screened child in 2020, and
- The incremental cost-effectiveness ratio (ICER) of StEPS was evaluated at \$13,942 per Quality Adjusted Life Year (QALY) gained.

The logo for Vision 20/20 Australia is contained within a white, cloud-like shape with two overlapping circles. The text "Vision 20/20 Australia" is written in a bold, black, sans-serif font, stacked vertically.

**Vision
20/20
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Attachment B

Eye Health and Vision Care Strategic Roadmap

Eye Health and Vision Care Strategic Roadmap

Goal

To ensure the best eye health and vision care is achievable for all Australians by:

- Expanding our understanding of the eye and visual system
- Developing therapies that prevent or correct vision loss
- Improving the delivery, effectiveness and reach of eye care services
- Improving quality of life and full participation of people who are blind, have vision loss or require vision rehabilitation
- Ensuring equitable eye care is accessible to all Australians wherever and whenever they need it.

The challenge

Over half a million Australians are currently affected by vision loss and blindness. This number is estimated to double by the year 2030 unless decisive and timely action is taken now.

Vision impairment can lead to a wide range of problems including reduced mobility, depression and anxiety, and increased risks of dementia, falls, vehicular accidents and higher mortality rates; with an estimated cost to the Australian economy of \$27.6 billion annually.¹

Investment in eye health and vision care research is required to develop innovative advances to prevent and treat eye conditions causing preventable and avoidable vision loss, and is critical to ensure that all Australians can access world-leading, effective and timely treatment, and support when they need it.

Despite this unmet need and the well documented economic cost of poor vision, government investment in eye health and vision research has been relatively low compared to that made in other areas of medical research.²

Given the critical importance of good vision to the broader independence, societal participation, health and wellbeing of all Australians, the eye health and vision care sector seeks funding for a dedicated Medical Research Future Fund “Mission for Vision” to accelerate research into eye health and vision care.

An Eye Health and Vision Care Mission will enable better understanding of the eye and visual system, develop therapies that prevent or eliminate vision loss, and expand opportunities for societal participation for Australians who are blind or require vision rehabilitation.

Purpose

This Roadmap provides a pathway for the eye health and vision research sector to address the growing burden of vision loss among the Australian population. It takes into account progress to date, research gaps and emerging priorities.

¹ Vision 2020 Australia by Access Economics Pty Limited, Clear Focus: The Economic Impact of Vision Loss in Australia in 2009, June 2010 – updated to 2021 costings by Health Consult (2021)

² A comparison of the distribution of Medical Research Future Fund grants with disease burden in Australia, Stephen E Gilbert, Rachele Buchbinder, Ian A Harris and Christopher G Maher, Med J Aust 2021; 214 (3)

The Roadmap is the culmination of a series of consultations with a broad range of stakeholders including people with lived experience, Aboriginal and Torres Strait Islander Organisations, clinicians, researchers, universities, patient advocacy organisations and disability service providers.

These engagements led to the creation of the “Vision for the Future – A 10 Point Plan to enhance Australian Ophthalmic Research” document (appendix 1), which provides a cross-sector, multidisciplinary approach to vision research to deliver vision for life for all Australians.

Guiding principles

Roadmap implementation will take into account the need to:

- Target the development of innovative, safe and effective treatments.
- Focus on research quality and likely impact on patient outcomes.
- Ensure meaningful engagement with people living with vision loss, carers and families in all aspects of research where possible.
- Ensure respectful and collaborative engagement with Aboriginal and Torres Strait Islander communities and deliver strengths-based research.
- Generate long-term outcomes that improve clinical care delivery.
- Facilitate multidisciplinary collaboration, including international collaboration and engagement.
- Support equitable outcomes and enhance service delivery for Australians of all ages, including Aboriginal and Torres Strait Islander Peoples; CALD communities; other at-risk groups; and people in regional, rural and remote areas.

Research Priorities

Research priorities aim to prevent blindness and vision loss, provide effective treatment and rehabilitation where vision loss has occurred and ensure quality supports for people who are blind or vision impaired.

A comprehensive set of research priorities for achieving this is outlined in the Vision for the Future - 10 Point Plan to enhance Australian Ophthalmic Research (appendix 1). Each

priority focusses entirely on improving the lives and experiences of people at risk of or currently experiencing blindness or vision loss and intersects with the following core areas -

1. Vision science

Investment in vision science will provide a fundamental understanding of the causes and drivers of different forms of eye disease and will provide opportunities to develop and trial new and more effective treatment.

Increasing our understanding of the function and biology of the eye, and vision and neurological developmental pathways, will enable us to develop innovative ways to monitor eye health and sight-threatening disease that informs disease prevention, diagnosis and treatment management, improves patient care and outcomes, and expands opportunities for people who are blind or require vision rehabilitation.

2. Prevention

Targeted research to test the viability of innovations in prevention and early detection strategies that reduce vision loss, will strengthen the underlying evidence base and inform disease prevention, diagnosis and treatment management.

The main causes of vision loss in Australia can be attributed to five preventable and/or readily treatable conditions: uncorrected refractive error, cataract, diabetic retinopathy, macular degeneration and glaucoma. The risk of developing each of these conditions increases with age, but 90 per cent can be prevented or reduced by early identification and treatment.³

Developing innovative ways to identify and monitor eye health and sight-threatening disease is vital in increasing the population's understanding of risk factors and encouraging behaviour change to reduce those risks. Addressing barriers to screening and health care delivery for at risk groups, will close the eye health gap between Indigenous and non-Indigenous Australian's and ensure the eye health needs of all Australians are met.

3. Treatment & Support

Developing and trialling new and more effective treatment and support strategies for people with vision loss, will improve service delivery and expand opportunities for people who are blind or require vision rehabilitation. For example, further research into how we apply advanced therapeutics such as gene therapy, mRNA technology and stem cells is required to develop personalised treatments to improve eye health and reverse vision loss.

Improving understanding of how to reduce the effect of degenerative sight-threatening diseases on quality of life in the ageing population, will allow us to better support those impacted.

Better research into best practice patient engagement and health promotion strategies will improve understanding of the impacts of eye disease on independence and quality of life.

³ Vision 2020 and Centre for Eye Research Australia, 2016, The National Eye Health Survey 2016.

Appendix 1

Vision for the Future - A 10 Point Plan to enhance Australian Ophthalmic Research

Focus area	Research Question/s	Example Solutions
Vision science Core area 1	How do we increase understanding of the function and biology of the visual system from eye to brain and apply this to improve patient care?	Support vision and eye basic science research.
Vision for life Core area 3	How can we reduce the effect of degenerative sight-threatening diseases on quality of life in an ageing population? How can we better support people living with a lifetime burden of eye disease?	New approaches to manage common blinding eye disease by identifying new treatment targets, translational clinical studies, health services research to work out more effective delivery methods. New approaches to reducing the burden of sight-threatening diseases that impact quality of life at differing stages of life.
Increase the effectiveness of treatment Core area 3	What are the markers of early-stage disease and disease progression that can inform therapy?	Develop therapies for previously untreatable sight-threatening eye diseases. Develop and translate pathophysiologic concepts into these techniques. Develop and optimise therapies to restore vision. Diagnostic techniques using novel imaging functional, genetic and other methods, to individualise treatment decisions.
Applying precision medicine to eye disease Core area 1,3	How can we use newer individual person specific features to improve testing and diagnosis of sight-threatening diseases?	Develop biomarkers to guide better treatment decisions. Translate basic vision science research into new treatments Develop advanced diagnostic testing allied with and based upon pathophysiologic concepts. Apply genetic testing to eye disease
Pre-clinical & Clinical Trials Core area 3	How do we use enhanced clinical trials capacity to improve patient care?	Establish and support coordinated clinical trials networks across Australia. Support for more effective clinical trials that improve patient care. Support for the translation of research concepts and models into clinical trials.
Prevention Core area 1	How do we enhance and embed preventive activities to reduce avoidable vision loss, and strengthen the underlying evidence base?	Application of public health strategies for the identification and implementation of evidence-based models of eyecare within the existing funding and structural framework.

Focus area	Research Question/s	Example Solutions
Screening & early detection Core area 1	How can we improve detection strategies for sight-threatening disease to identify and treat those at highest lifetime risk of blindness or vision loss?	Research into new techniques such as biomarkers, genomics, new ocular imaging and functional testing methodology, AI, children's vision, health system integration.
Enhance service delivery Core area 2,3	How can we improve access to and uptake of high-quality eye care services?	Enhance multidisciplinary teamwork, patient-centred care, health system integration. Optimise eyecare pathways across providers, integrating systems and data to improve access in varying environments including rural and remote areas.
Meeting the needs of Aboriginal and Torres Strait Islander Peoples (Closing the Gap) Core area 1,2,3	How do we achieve equity of eye health and vision outcomes for Aboriginal and Torres Strait Islander peoples and embed community leadership and control?	Address barriers to screening and health care delivery in Aboriginal and Torres Strait Islander communities. Build inclusive healthcare and research systems led by Aboriginal and Torres Strait Islander workers, researchers, and communities. Embed locally accessible clinical care and research facilities within Aboriginal and Torres Strait Islander communities to maximize accessibility. Train and mentor Aboriginal and Torres Strait Islander staff within these facilities for leadership positions.
Improving Patient Journey Core area 1,3	How do we better understand the impacts of eye and brain disease on vision and quality of life (including social and economic impacts) and manage these?	Better understand patient/health care professional interactions to improve care delivery. Assess disease-specific vision issues, and deliver tailored advice to providers, patients, and carers. Improve vision aids and rehabilitation. Involve patients in research and care delivery decisions.

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**National peak
body
for the eye health
& vision care
sector.**

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