

Budget Submission 2023-2024

National peak body for the eye health and vision care sector

Vision 20/20 Australia



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

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 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] The main causes 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 with access to early detection and management, including simple and cost-effective treatments like cataract surgery and spectacles. [2]

Over half a million Australians are affected by vision loss and blindness. Aboriginal and Torres Strait Islander people are disproportionally impacted, experiencing blindness and vision loss at three times the rate of other Australians[2], accounting for 11% of the health gap.[3] With access to the right support and services, all Australians with vision loss can remain independent and engaged in the community.

Vision loss has significant social and economic costs, 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.[4]

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 Australian's can access world-leading treatment and support when they need it.

With 50 per cent of the population predicted to require eyecare services by 2050, the time to act is now.[5] This submission calls for support from the Government to ensure that all Australians and our nearest neighbours can access the eye care services they need, when they need them by:

1. Ending avoidable vision loss and blindness in Aboriginal and Torres Strait Islander communities
2. Increasing access to publicly funded sight saving eye care
3. Ensuring eye care, early intervention and education are accessible for all Australian children
4. Strengthening health systems in the Indo-Pacific
5. Improving accessibility and inclusion for people who are blind or have low vision
6. Investing in eye and vision research.

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[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.
[2] Foreman J, Keel S, Xie J, Van Wijngaarden P, Crowston J, Taylor HR and Dirani M (2016) *The National Eye Health Survey 2016*, Vision 2020 Australia and Centre for Eye Research Australia, accessed 15 August 2022
[3] Arnold A, Dunn R and National Indigenous Eye Health Survey Team (2009) *National Indigenous Eye Health Survey: Minum Barreng (Tracking Eyes), Melbourne*, The University of Melbourne and Centre for Eye Research Australia, accessed 15 August 2022.
[4] UNSW School of Optometry and Vision Science, 2020, *Access to public cataract services in Australia,* accessed 9 January 2022.
[5] Holden BA , Fricke TR, Wilson DA et al. Global prevalence of myopia and high myopia and temporal trends from 2000 through 2050.Ophthalmology. 2016; 123: 1036-104

1. End avoidable vision loss and blindness in Aboriginal and Torres Strait Islander communities

Provide $73.6 million to improve eye health for Aboriginal and Torres Strait Islander People

Blindness and vision loss is three times more common among Aboriginal and Torres Strait Islander People relative to other Australians, attributable in part to having to wait significantly longer to access eye care services. Approximately 90 per cent of this blindness and vision loss is preventable or treatable if detected early enough.[6]

Addressing avoidable blindness is a key priority identified by the Government in the National Aboriginal and Torres Strait Islander Health Plan 2021-2031.[7] Despite this and significant government investment, approximately 30 per cent of eye care needs remain unmet.

Access to culturally appropriate eye care services is a vital component of preventing avoidable blindness in Aboriginal and Torres Strait Islander People.[8] Investment in Aboriginal and Torres Strait Islander led eye health models should be prioritised to ensure local service availability and community control into the future, with visiting optometry and ophthalmology services, local case management and regional implementation managers working alongside communities to achieve this.

Vision 2020 Australia recommends investment in the following priorities from the *Strong eyes, strong communities five year plan for Aboriginal and Torres Strait Islander eye health and vision:*[9]

- **$2.5 million over 5 years to build eye health capacity in the Aboriginal and Torres Strait Islander health workforce.**
  Building skills capacity and ensuring adequate resources for eye health in Aboriginal and Torres Strait Islander Community led organisations and across the primary health care system is an important pre-condition for self-determination and community control in the delivery of eye health models by Aboriginal and Torres Strait Islander Peoples and is vital for improving the eye health and vision of Aboriginal and Torres Strait Islander People.

  $2.5 million is proposed to fund Aboriginal and Torres Strait Islander led registered training organisations to deliver free TAFE 'eye-health upskilling' units designed for individuals who have completed the Certificate IV in Aboriginal and/or Torres Strait Islander Primary Health Care. This will strengthen technical skills in local communities and grow the number of Aboriginal and Torres Strait Islander people qualified to address the eye health needs of Aboriginal and Torres Strait Islander People. It will also enhance pathways for growth into program management and leadership, helping to build and sustain local capacity to deliver community led eye health and multidisciplinary collaborative care models.

[6] Foreman J, Keel S, Xie J, Van Wijngaarden P, Crowston J, Taylor HR and Dirani M (2016) *The National Eye Health Survey*

[7] DHAC (Department of Health and Aged Care) (2021), *National Aboriginal and Torres Strait Islander Health Plan 2021–2031*, accessed 5 January 2023

[8] AIHW (Australian Institute of Health and Welfare) (2021) *Indigenous Eye Health Measures 2021*, AIHW, Australian Government, accessed 5 January 2023.

[9] Vision 2020 Australia (2019) *Strong eyes, strong communities – A five year plan for Aboriginal and Torres Strait Islander eye health and vision*, 2019-2024, accessed 5 January 2023

- Increase funding for the Visiting Optometrists Scheme (VOS) to support Optometrists in providing an additional 21,000 optometry eye examinations per year. **$19.4 million over 5 years.**
- Fund 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). Enabling the provision of consultations, treatment (including cataract surgery) and follow-up care at regional and district hospitals to ensure Aboriginal and Torres Strait Islander people receive ophthalmology services when they need them. **$24.6 million over 5 years.**
- **$21.6 million over 5 years** to fund 100,000 case managers and local support services that will ensure continued access to treatment and eye care for Aboriginal and Torres Strait Islander People, build local knowledge of eye health and vision and aide integration into broader health care. Based in community-controlled health organisations, these roles will also increase the overall effectiveness of outreach and other visiting eye care services.
- Fund part-time regional implementation managers employed in 25 regions to liaise and coordinate continuity for local care pathways. **$5.5 million over 5 years.**

2. Increase access to publicly funded sight-saving eye care

Enhance the eye health workforce and improve infrastructure to increase public access to sight saving eye care

Cataract, age-related macular degeneration, glaucoma and diabetic eye disease are leading causes of vision loss in Australia and will continue to increase with an ageing population.[10] Fortunately, there are proven, cost-effective treatments such as cataract surgery that can reverse or slow the loss of vision.

However, people who rely on the public health system currently experience significant barriers in accessing these treatments as services are distributed unequally throughout the country and eye care providers struggle to meet growing demand and clear backlogs as a result of COVID-19. Aboriginal and Torres Strait Islander People, vulnerable communities and those living in rural and remote areas are disproportionately impacted, with Aboriginal and Torres Strait Islander People waiting significantly longer for cataract surgery than other Australians.

With 1 in 2 people predicted to require eye care services by 2050, eye care reform is necessary now to prevent a lifetime of avoidable blindness. A partnership between the eye sector, Aboriginal and Torres Strait Islander Health Organisations, government and other key stakeholders is proposed to deliver a sustainable public system that optimises use of all available workforces, draws on local models and pathways, addresses current inequities in accessing treatment and supports the development and implementation of community designed and led models of eye care. This would include -

- A situational analysis to develop a clear and concise picture of the eye health workforce in Australia and the development of a costed workforce plan in consultation with Government, the eye health sector and other relevant stakeholders.
- The pilot of a multi-disciplinary collaborative eye care model for the management of eye disease that focuses on providing timely and culturally appropriate health care in the right setting by the right provider. The pilot will be developed with relevant health providers and professional and patient representative groups, while drawing on the successes of local models of collaborative eyecare. Upon completion, an independent evaluation will inform broader rollout across the nation.
- **$2.5 million** to pilot an eye care specific electronic medical record system in one metropolitan and one regional public hospital that will improve data collection and reduce wait times for patients through improved assessment and collaborative triage.

Embed Vision Care in Chronic Health Checks

People with chronic disease are often at higher risk of avoidable vision loss, either due to the condition itself and/or potential side effects of treatment. Enabling people who have, or are at risk of, chronic conditions to have a vision check as a routine part of their primary health care will help ensure Australians at risk of vision loss are identified and referred early for prevention and management.

Vision 2020 Australia calls for changes to MBS items 701, 703, 705 and 707 to make vision checks a requirement of chronic health checks. This would align with MBS item 715 for

[10] DHAC (Department of Health and Aged Care), *Eye Health and Vision*, DHAC, Australian Government, accessed on 25 January 2023.

Aboriginal and Torres Strait Islander Peoples and the impacts on associated optometric MBS billing would be minimal (0.7% increase on current billing rates)[11].

It is important that appropriate care pathways are embedded alongside the above, ensuring that those requiring further eye care are referred to optometry or ophthalmology as appropriate.

Strengthening preventative eye checks through Medicare

Early detection can significantly improve the chances of preventing avoidable vision loss and its associated risks. As part of this government's commitment to strengthening Medicare, we call for adjustments to ensure preventative eye health remains viable for both clinicians and patients. Including -

- **Increasing the Optometric domiciliary loading benefit for residential aged care and home visits**

Eye disease is very common and under recognised in residential aged care.[12] Regular eye examinations are critical to enable early detection of eye disease, reduce irreversible damage and morbidity.

The Aged Care Royal Commission highlighted the importance of ensuring that aged care residents have access to visiting allied health professionals, including optometrists, as part of their care plans (e.g.Rec. 38). However, optometrists providing domiciliary services under MBS items 10931 – 10933 are only compensated for extra costs through a loading of up to $24.20 which does not account for the true expenses of providing these services. This also applies to rebates for home visits under these MBS items, making it financially unviable for optometrists to support the eye health of older Australians still living in their own homes.

We support Optometry Australia in calling for an increase in the domiciliary loading for these services to $85.00 per visit, paid proportionately for multiple patients. Assuming a 10 per cent increase in these services because of this measure, the additional cost would likely be **$500,000 per annum**.

[11] Analysis undertaken in 2021 by Vision 2020 Australia predicts the associated increase in MBS billing (optometric) is 0.7% increase on current billing rates, based on current optometric testing rates in both the 45-64 and the 65+ age groups and current chronic health check testing rates for those cohorts.

[12] Cummins R and Heraghty J (2018) *Vision and eye healthcare study in residential aged care facilities study report*, Macular Disease Foundation Australia.

3. Ensuring eye care, early intervention and education are accessible for all Australian children

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

Eye disorders are one of the most common long-term health problems experienced by Australian children, costing the health care system $542 million each year.[13] If left untreated, they can lead to vision loss or blindness, which can have significant long-term effects on a child's sensory, cognitive, social and language development.[14]

We also know that vision loss has life-long implications. In a study completed in 2016, Deloitte Access Economics found that a 17-year old living in Australia with a vision impairment received $53,916 less in real lifetime earnings than a person without vision impairment[15].

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.

Children's vision screening programs in Australia have demonstrated good return on investment,[16] decreasing blindness in children and outweighing associated health care costs.[17] 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.

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 as part of the Government's Early Years Strategy (a copy of the framework can be found at Attachment A).

Streamline NDIS access for children with vision loss

For children who are blind or have low vision, it is vital that supports be introduced as soon as possible. Currently, system settings for the NDIS Early Childhood Early Intervention Pathway mean many children do not receive timely access to supports because:

- Diagnostic criteria for vision loss are strict. Diagnosis can be difficult for vision conditions at an early age, and conditions which will lead to deterioration in vision are not easy to diagnose
- The eligibility criteria of developmental delay aren't easily demonstrated in young children
- Knowledge regarding available vision supports and the ideal approach for children is inconsistent among NDIS planners and assessors.

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[13] AIHW (Australian Institute of Health and Welfare) (2008) *Eye Health among Australian children*, AIHW, Australian Government, accessed 16 August 2021.
[14] American Optometric Association (2017) *Comprehensive pediatric eye and vision examination* , accessed 3 October 2020.
[15] Deloitte and Save Sight Institute (2016), *Socioeconomic impact of low vision and blindness from paediatric eye disease in Australia*, Deloitte and Save Sight Institute, accessed 25 January 2023
[16] Incremental cost effectiveness ratio of $13,942 per QALY gained.
[17] New South Wales Ministry of Health (2018), *Evaluation of the Statewide Eyesight Preschooler Program (StEPS) Final Report*, Ministry of Health, New South Wales Government, accessed 16 August 2021.

The NDIA has collaborated with people who are deaf or have hearing loss on developing a system which ensures children with hearing loss get access to vital supports as early as possible.

Vision 2020 Australia recommends the NDIA work with the eye health and vision care sector to develop:

1. Reference packages to guide NDIS planners and assessors in providing crucial Early Intervention supports to children entering the scheme, and
2. A streamlined access pathway for children with vision loss, which ensures children receive supports as soon as possible following recognition of vision concerns.

These initiatives should form part of the Government's Early Years Strategy as a preventative measure for future developmental delay and to ensure children have access to support services when they need it.

Ensure education is accessible for students who are blind or have low vision

Children who are blind or have low vision should have the same access to education as those without disability. However, children who are blind or have low vision can encounter barriers to learning and may require a set of disability-specific skills to be able to fully access and engage with the school curriculum.

The Expanded Core Curriculum identifies key areas where students can benefit from additional, targeted education by qualified specialist teachers. Research suggests that students who have been taught using its methodology enjoy better outcomes later in life. Implementing the Expanded Core Curriculum nationally will ensure children who are blind or have low vision receive an education equivalent to their peers and equal access to opportunities in adulthood.

People who are blind or have low vision are also more likely to gain employment if they are equipped with a tertiary qualification. However, universities do not always consider the access needs of people with vision disabilities when procuring information and communications technology. As a result, students face barriers such as complicated web interfaces, inaccessible documents and unusable digital submission systems.

To ensure equal access to education, we recommend the Government:

1. Implement the Expanded Core Curriculum and introduce benchmarks to ensure it is delivered consistently to children with vision loss.
2. Introduce accessible information and communications technology procurement standards and require all publicly funded universities to comply with these.

4. Strengthening health systems in the Indo-Pacific

$25 million over 5 years to strengthen Papua New Guinea's health system

Papua New Guinea (PNG) has one of the highest rates of blindness in the world, with over 860,000 people experiencing vision loss,[18] the majority of whom are women.[19]

The main causes are:

- Untreated cataracts which can be removed with low cost, sight saving surgery
- Uncorrected refractive error which can be corrected with the right pair of glasses (which two out of three people do not have access to); and
- High diabetes prevalence (15.4% of population), with limited access to care, education and treatment.

Over 90 per cent of blindness and vision impairment in PNG is avoidable, but there are only 11 ophthalmologists performing surgery for a population of nine million (WHO advises that countries of this size should have at least 90 ophthalmologists). PNG also has rapidly rising rates of noncommunicable diseases (NCDs), like diabetes, which can lead to diabetic retinopathy and irreversible vision loss.[20]

Vision impairment or blindness has a direct impact on a person's ability to engage in work, education and development – undermining efforts to engage in social and economic mobility. Increasing access to proven and cost-effective interventions to prevent and treat blindness, will drive economic growth, with every $1 spent returning a $4 economic gain.[21]

The priority areas identified by the PNG National Department of Health (table B) will strengthen PNG's primary, secondary and tertiary healthcare systems by developing and upskilling the local workforce, supporting the countries recovery from COVID-19 and ensuring they are better equipped to deal with future health challenges. It will also provide outreach services throughout PNG to address the current burden of vision loss and prevent escalating rates of avoidable blindness.[18]

Increase disability inclusion in overseas development assistance

The COVID-19 pandemic has had a catastrophic impact on people with disabilities, including those living with vision impairment and blindness. People with disabilities experience barriers accessing information, health services, supports, livelihoods, and social protection measures. They represent more than 50 per cent of all COVID-19 related deaths.

We have also seen a disproportionate number of people with disabilities pushed into extreme poverty and experience heightened barriers to inclusion. Women have been disproportionately impacted.

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[18] Lee L, D'Esposito Fm Garap J, Wabulembo G, Koim SP, Keys D, Cama AT, Limburg H and Burnett A (2018), *Rapid assessment of avoidable blindness in Papua New Guinea: a nationwide survey*. British Journal of Ophthalmology 2019; Mar;103(3):338-342. doi: 10.1136/bjophthalmol-2017-311802. Epub 2018 May 23. PMID: 29793925.
[19] Brien Holden Vision Institute (2017), *Rapid Assessment of Avoidable Blindness and Diabetic Retinopathy– Papua New Guinea, 2017*, Brien Holden Vision Institute, accessed 09 December 2021.
[20] International Diabetes Federation 2017, *IDF Diabetes Atlas – 8th Edition*, Brussels.
[21] Armstrong, Kirsten L; Jovic, Martin1; Vo-Phuoc, Jennifer L1; Thorpe, Jeremy G1,; Doolan, Brian L2 The global cost of eliminating avoidable blindness, Indian Journal of Ophthalmology: Sep–Oct 2012 - Volume 60 - Issue 5 - p 475-480 doi: 10.4103/0301-4738.100554

We welcome the Government's recent restoration of the ODA disability allocation to its former level and call for a further increase to a minimum of $14.4 million in FY2023–24 budget and an increase in line with GNI thereafter.

A proactive focus on disability inclusion in Australia's development program that is fully resourced will help break the cycle of poverty and disability and will strengthen health care systems in the region, making them better equipped to deal with future health challenges.

Table B – Invest $25 million over 5 years to strengthen the PNG health system

Element	Description	Outcomes
Service Delivery	Support the national eye health leadership in PNG to provide service delivery in remote areas to increase access to essential eye care including cataract surgery and refraction services. Improve workforce capacity in Provincial Health Authority's through mentorship and upskilling of ophthalmology registrars, low vision sub-specialty upskills training and integration of eye care in primary health service delivery.	• System strengthening through quality eye care service delivery and effective integration with primary health. • Address current disparities in accessing treatment and ensuring stronger connections to support those identified as having permanent vision loss.
Centre for Eye Health	Establish a National Department of Health-endorsed, Centre for Eye Health, which will provide long-term solutions to the shortage of eye health workforce (land donated by PNG Government, 50% funding committed by NZ government) The Centre for Eye Health will provide - • Quality training for doctors and mid-level personnel. • Workforce support and training, at primary, secondary and tertiary levels. • Specialised eye care services alongside Port Moresby General as the national referral hospital. • A dedicated clinic specialising in diabetic retinopathy screening, prevention, and management.	• A quality eye health workforce at primary, secondary and tertiary levels. • Improved access to critical eye treatment and services • Reduction in the prevalence of diabetic retinopathy through early screening and prevention. • Strong national and sub-national eye health leadership, coordination and planning.

5. Improving accessibility and inclusion for people who are blind or have low vision

Improve access to Assistive Technology for Australians with vision loss outside the NDIS

The majority of Australians who are blind or have low vision are not eligible for the NDIS, either because they are over the age of 65 or because they do not meet strict eligibility criteria. These include a significant proportion of Aboriginal and Torres Strait Islander people, with dual sensory loss and comorbidity who are already at a disadvantage.

These people can often remain independent and continue living safely at home through the provision of a variety of Assistive Technology (AT). AT includes relatively low-cost optical magnifiers which allow people to read medication labels, food expiry dates, and essential correspondence independently, and mobility aids which can enable people who are blind or low vision to safely leave their homes.

Currently, people outside the NDIS are missing out on this vital equipment, leading to higher risk of falls, hip fractures, and entry into residential care. This is because:

- The current Commonwealth Home Support Program (CHSP) and residential care system settings do not provide sufficient funding for AT;
- Long waiting lists for Home Care packages often make them inefficient for delivering AT;
- State/territory based AT programs are difficult to navigate for both consumers with low vision and service providers and provide inconsistent levels of funding and equipment.

The introduction of AT in early vision loss significantly reduces the risk of adverse outcomes and is a good return on investment – with every dollar spent returning between $3.90 and $25.63.[22]

Vision 2020 Australia supports the Assistive Technology for All campaign and the call for the introduction of a nationally consistent, harmonised scheme to deliver AT to people with disabilities outside the NDIS.

Amend the Broadcasting Services Act to legally require the provision of audio description on free-to-air TV

Audio Description is a service which provides information about on-screen content to people who are blind or have low vision. Access to Audio Description is about more than entertainment. If a person who is blind or has low vision cannot enjoy the same programs as the rest of society, they are less likely to be included in conversation and community. Audio Description can also provide potentially life-saving information which is usually only delivered as text (e.g. mental health hotlines, emergency information).

In Australia, there is no legal requirement for any TV network to deliver audio described content. This has been found to be a human rights violation under Articles 9 and 30 of the United Nations Convention on the Rights of Persons with Disabilities.[23] Amendment to the Broadcasting Services Act, similar to the legal mandate which has required provision of

[22] AHA (Australian Healthcare Associates) (2020), Review of Assistive Technology Programs in Australia Final Report for the Australian Government Department of Health, Department of Health, Australian Government, accessed 7 July 2022.
[23] United Nations (2022) Convention on the Rights of Persons with Disabilities, United Nations, accessed 23 January 2020.

closed captions for people who are deaf or hard of hearing, is needed to require free to air TV to provide audio description.

This amendment would:

1. Require all free-to-air TV channels to provide Audio Description for all emergency announcements and those related to mental health
2. Require all free-to-air TV channels to provide a minimum amount of Audio Description per week. This amount would be set at:
    - 14 hours per week in the 1st 3 years following implementation
    - 21 hours per week in the 4th year following implementation and
    - 28 hours per week from the 5th year following implementation.
3. Set quality standards for the provision of Audio Description, similar to those established in the UK
4. Require Audio Description that is broadcast on live television to also be available for on-demand or catch-up viewing.

Invest in mental wellbeing for Australians with vision loss - $3 million

People with vision impairment are three times more likely to experience depressive symptoms. The mental distress triggered by a vision loss diagnosis includes a sense of hopelessness and helplessness, loneliness, panic and shock. Further compounding this is the impact of intergenerational trauma, lack of access to trauma-informed services and relatively low social and emotional wellbeing of Aboriginal and Torres Strait Islander people. As the level of social participation and community involvement for vision impaired people contracts, this reiterates feelings of isolation and helplessness, a problem which has been amplified by the COVID-19 pandemic.

People with vision impairment and poor mental wellbeing are less likely to access essential services such as assistive technology, rehabilitation and treatment. Only one in ten are receiving the psychological support they need.[24] This rate is almost five times lower than the general population.[25]

There is a clear and pressing need to invest in mental wellbeing support for vision impaired Australians, doing so will result in:

- Increased awareness and knowledge regarding mental wellbeing among eye care professionals
- Increased rates and accuracy in referrals for psychological support
- Reduced rates of chronic mental health sufferers; and
- Reduced prevalence and disease burden.

[24] Dillon, L., Tang, D., Liew, G., Hackett, M., Craig, A., Gopinath, B., & Keay, L. (2020). Facilitators and barriers to participation in mental well-being programs by older Australians with vision impairment: community and stakeholder perspectives. *Eye*, *34*(7), 1287-1295. https://doi.org/10.1038/s41433-020-0992-z

[25] AIHW (Australian Institute of Health and Welfare) (2022), *Mental health: Australia's mental health services*, AIHW, Australian Government, accessed 10 December 2022.

In addition to maintaining and extending subsidised psychological services, Vision 2020 Australia is requesting funding of **$3 million** for:

1. Skills and knowledge training for eye care professionals to help identify and refer people with poor mental wellbeing;
2. Awareness promotion to reduce social stigma of poor mental wellbeing by engaging people with lived experience, documenting and sharing their stories; and
3. The development of tools, resources and clinical guidelines specific to supporting the mental wellbeing of people with vision loss, accessible to affected people, their families and healthcare providers.

6. Investing in 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 years[26]

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.[27] 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[28]).

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.

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[26] 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).

[27] 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 2021.

[28] ORIA (Ophthalmic Research Institute of Australia) (2019), *ORIA Research Funding & Impact 2019*, accessed 5 July 2022.

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

Vision 20/20 Australia

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



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

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

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Foreword

Eye disorders are one of the most common long-term health problems experienced by Australian children[1]. 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 health[3] 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.

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[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 Guide[5] 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, 6/9[5], 6/12 and 6/18[7] as a minimum. Vision chart should be placed at the manufacturer's recommended test distance[8].

  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 eight weeks 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 eight weeks 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 three months (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 one month by an eye health practitioner.

[9] New South Wale'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** • Experience in working with children and parents/carers. **Cultural competency**[11] • Have a clear understanding of cultural safety within the community that vision screening will be conducted in. **Communication skills** • Effective/appropriate/professional communication with service providers, parents/carers and children • Understanding of patient confidentiality. **Technical skills** • Competency in using vision screening equipment • Accurate record keeping • Ability to follow protocols and procedures • Ability to adhere to OHS/compliance/infection control guidelines.
Qualifications	• Working with Children Check • Successful completion of prescribed competency package.

[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 evaluation[12].

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 up[13]
- 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 considered[14].

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.

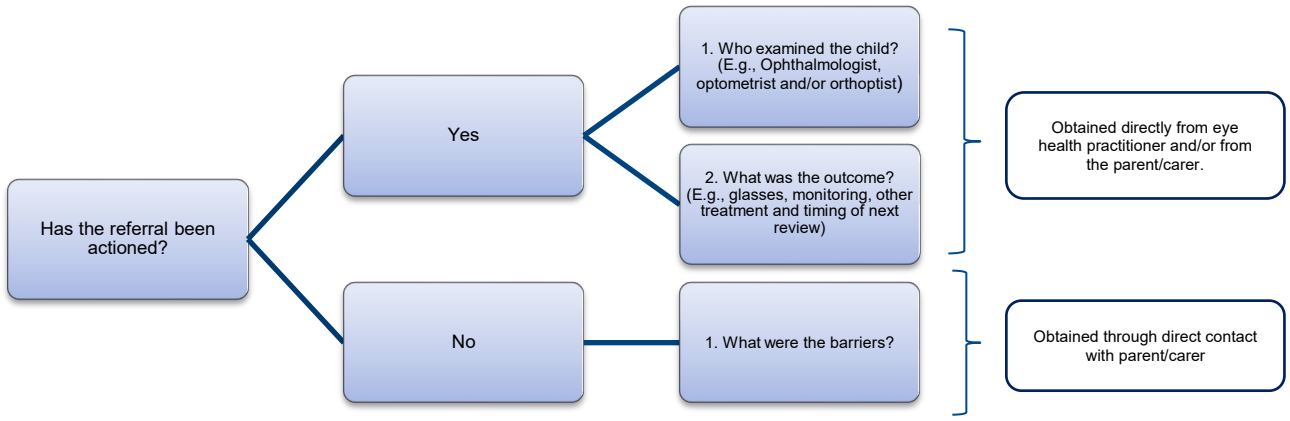
Obtaining additional/supplementary information from parents/carers could also be included, particularly in instances where eye health practitioners have not completed follow up outcomes.

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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- 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
- 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.

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, Rachelle 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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