2022-23 Pre-Budget Submission

January 2022

National body working in partnership to prevent avoidable blindness and improve vision care

Contents

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

In Australia, 90 per cent of blindness and vision loss is preventable or treatable if detected early enough.[1] Despite this, many Australians continue to experience avoidable vision loss due to conditions such as cataract and diabetes eye disease, that could easily be prevented through early detection and cost-effective treatment.

Aboriginal and Torres Strait Islander people are disproportionally impacted, experiencing blindness and vision loss at three times the rate of other Australians, accounting for 11% of the health gap.[2]

In 2016, the National Eye Health Survey found 453,000 Australians were blind or vision impaired, recent modelling by Vision 2020 Australia indicates this is now closer to 840,000 and that by 2030 this could exceed 1.04 million.[3]

This has significant social and economic costs, with recent data indicating vision loss costs the Australian economy $27.6 billion annually or $46,950 per person with vision loss aged over 40.[4]

With the right support and services, people with unavoidable blindness and vision impairment can remain independent, engaged in their communities, and live the life they choose.

Investment in prevention, good eye health and supports for people who are blind or have vision loss is wise and will decrease ongoing costs to Government while supporting good quality of life for individuals. This submission outlines a range of initiatives to do just that:

- Provide an additional $65 million over 4 years ($9 million in 2022-23) to meet the Australian Government commitment to ending avoidable blindness in Indigenous communities by 2025, through full implementation of the Strong Eyes, Strong Communities recommendations.
- Invest $26.4 million over 4 years to tackle the blindness crisis in Papua New Guinea.
- Provide an additional $14 million per annum for disability inclusion in Australia's aid program to ensure people living with disability are not left behind.
- Invest $5.04 million over 4 years to trial a just-in-time online or phone coaching service and develop online resources for disability and aged care workers and assessors.
- Fund a national, harmonised scheme to provide Assistive Technology to older Australians with disabilities including vision loss.
- Introduce packages for children with vision loss entering the NDIS, similar to those which already exist for children with hearing loss.
- Amend the Broadcasting Services Act to legally require the provision of Audio Description on free-to-air TV.
- Establish a dedicated vision mission within the Medical Research Future Fund of $150 million over 10 years.

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[1] Vision 2020 and Centre for Eye Research Australia, 2016, The National Eye Health Survey 2016.

[2] Taylor HR, National Indigenous Eye Health Survey Team, National Indigenous Eye Health Survey: Minum Barreng (Tracking Eyes), Melbourne: Indigenous Eye Health Unit, The University of Melbourne, 2009.

[3] This estimate is based on the prevalence of the 5 most common causes of vision loss (cataract, uncorrected refractive error, diabetic retinopathy, aged related macular disease and glaucoma).

[4] Access Economics, 2010*, Clear Focus: The Economic Impact of Vision Loss in Australia in 2009: A Report prepared for Vision 2020 Australia*, Melbourne updated to 2021 dollar values by Health Consult, September 2021.

- Fund ophthalmology staff specialist positions in the public system and develop new and innovative eye health workforce strategies that improve access to cataract surgery and intravitreal injections in regional, rural and remote Australia.
- Adopt the Vision 2020 Australia National Framework for Children's Vision Screening to ensure all children have their eyes screened prior to starting school.
- Implement the Expanded Core Curriculum nationally for students who are blind or have low vision and require universities to comply with accessible information and communications technology (ICT) procurement standards.

Budget Priorities for 2022-23

End avoidable blindness in Aboriginal and Torres Strait Islander communities

Invest $65 Million to meet the Australian Government commitment to ending avoidable blindness in Indigenous communities by 2025.

The Australian Government has committed to ending avoidable blindness in Indigenous communities by 2025.[5] Despite this, Aboriginal and Torres Strait Islander People continue to experience blindness and vision loss at three times the rate of other Australians.

Strong Eyes, Strong Communities – a five year plan for Aboriginal and Torres Strait Islander Eye Health and Vision 2019-2024[6] sets out a concrete plan of action to take this commitment forward. While Government has taken action on some recommendations, there are still a number that require immediate Government support.

With further investment *Strong Eyes, Strong Communities* can deliver over 183,000 additional outreach services as well as other activities that will build sustainable, community led locally-responsive eye care into the future. A total of $65 million over 4 years is required to achieve this. Of this, $9 million is being sought in the 2022-23 Federal Budget. This investment will not only enhance local health capacity and outcomes, but will also provide local employment opportunities in community-controlled health organisations and will honour the Government's commitment to ending avoidable blindness in Aboriginal and Torres Strait Islander communities.

[5] Australia's National Long Term Health Plan (2019), p7 https://www.health.gov.au/sites/default/files/australia-s-long-term-national-health-plan_0.pdf
[6] Vision 2020 Australia 2019, *Strong Eyes, strong communities*, https://www.vision2020australia.org.au/wp-content/uploads/2019/03/Strong-Eyes-Strong-Communities-A-five-year-plan-for-Aboriginal-and-Torres-Strait-Islander-eye-health-and-vision-2019-2024.pdf

Table A: *Strong Eyes, Strong Communities*- Priorities for action to end avoidable blindness

Priority Action	Deliverables	$ Million
Co-design, implement and evaluate ACCHO led models of eye care.	Establishment of 3 pilot sites for Aboriginal Community-Controlled Health Organisation led models of eye care	$3.5M
Build capacity of ACCHO staff and bolster prevention efforts.	Fund eye health training for ACCHO staff in 143 Aboriginal Community-Controlled Health Organisations across Australia	$4.2M
Provide priority equipment to facilitate local service provision.	Slit lamps and ocular coherence tomography units in priority locations, reducing the need for people to leave communities to access eye care.	$4.2M
Improve local case management and support for people to access and continue treatment and care.	100,000 local support services provided over 5 years.	$20.1M
Expand the Visiting Optometrists Scheme (VOS).	Provide up to 21,000 additional optometry eye examinations per year, as well as additional ophthalmology services.	$12.9M
Expand the Rural Health Outreach Fund (RHOF).	12,300 additional rural outreach services	$4.3M
Fund regional implementation managers	Regional implementation managers employed in 25 regions to build local and responsible pathways to care.	$5.1M
Establish nationally consistent arrangements for subsidised glasses	Provide subsidised glasses for up to 40,000 Aboriginal and Torres Strait Islander people.	$10.8M
	Total	**$65.0M**

Tackling the blindness crisis in PNG

Invest $26.4M over 4 years to tackle the blindness crisis in PNG

Papua New Guinea (PNG) has one of the highest rates of blindness in the world with an estimated 860,000 people with vision loss[7] - 61% of whom are women.[8]

The main causes are untreated cataracts, uncorrected refractive error and a high prevalence of diabetes (15.4% of population) [9], which can all be corrected with proven and cost-effective interventions.

Funding in the budget for the below priority areas, identified by the PNG National Department of Health (and with an investment from the New Zealand Government of $16 million), will address the current burden of vision loss and prevent escalating rates of avoidable blindness due to the COVID-19 pandemic.[18]

- Immediate investment in remote service delivery so that up to 160,000 people per year have their sight restored and can reach their full potential.
- The establishment of a sustainable purpose-built Centre of Excellence to train eye care clinicians, community health workers and existing staff.

In line with our development partnership with PNG, Australia should support the PNG healthcare system to ensure that the 90% of vision loss that can be prevented and treated is, when it is appropriate to do so.

[7] Lee L, et al. Rapid assessment of avoidable blindness in Papua New Guinea: a nationwide survey. British Journal of Ophthalmology 2018;0:1-5

[8] Brien Holden Vision Institute 2017, *Rapid Assessment of Avoidable Blindness and Diabetic Retinopathy Report* – Papua New Guinea, Sydney.

[9] International Diabetes Federation 2021, IDF Western Pacific members, Members (idf.org)

Table B – Seeing the Future: Tackling the blindness crisis in PNG

Element	Description	Outcomes
Immediate Action: **Remote Service Delivery**	Support the national eye health leadership in PNG to provide remote service delivery 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 and low vision sub-specialty upskills training. Strengthen collaboration between eye health and non-communicable disease sectors through joint strategies, improved referral pathways and knowledge exchange.	• Deliver 76 clinics across 6 locations, reaching at least 160,000 people with access to sight saving surgery and glasses • System strengthening and integration, through upskilling of local health workers and integration of eyecare into broader health care (including public health campaigns) • Address current disparities in accessing treatment and ensuring stronger connections to support those identified as having permanent vision loss
Sustainable long-term solution: **Centre of Excellence**	Establish a National Department of Health-endorsed, purpose built Centre of Excellence in Eye Health Care, which will provide long-term solutions to the shortage of eye health workforce (land donated by PNG Government, funding committed by NZ government) The Centre of Excellent will provide - • A training facility for new ophthalmologists, ophthalmic clinicians, and optometrists. • Comprehensive training & development programs for health care staff. • Clinical facilities that can expand local provision of specialist eye care. • Expertise and facilities that can support country-wide improvements in access to and quality of critical eye care • Access to diabetic retinopathy screening, prevention, and management.	• 24 local Ophthalmologists trained • 4 local Optometrists trained • Increased access to critical eye treatment and services • Reduction in the prevalence of diabetic retinopathy through early screening and prevention.

Increase the disability inclusion allocation in overseas development assistance

Provide an additional $14M per annum for disability inclusion in Australia's aid program to ensure people living with disability are not left behind

The COVID-19 pandemic has had a catastrophic impact on people with disabilities, including those who are blind or vision impaired, who are more susceptible to contracting the virus and experiencing barriers to support services.

Australia has been a global leader in championing disability-inclusive development as a core component of its aid program and international engagement. However, in the last two years there has been a drop in funding for disability inclusion in overseas development assistance. Last financial year (2021-2022), the budget dropped 25% from $12.9 million to $9.6 million, at a time when people with disabilities are being pushed to the margins.

To ensure this isn't a continuing trend, the central disability allocation should be increased in the budget to a minimum of $14 million per annum, representing just 0.35% of Australia's total aid spend.

A proactive focus on disability inclusion will help break the cycle of poverty and disability.

Eyes on Care: Informed Support for People who are Blind or have low vision

Invest $5.04 million over 4 years to trial a just-in-time online or phone coaching service and develop online resources for disability and aged care workers and assessors.

Many people who acquire permanent vision loss have very little knowledge of the supports and training available that could allow them to remain independent and continue in many of the same activities they previously enjoyed.

The assessors who identify what supports people need, and the care workers who most frequently interact with them, are ideally placed to assist them. "Eyes on Call" is an innovative, on-call eye health and vision coaching and support service for disability and aged care workers and assessors. The service will provide staff with up-to-date information and connect them to existing resources across the eye health and vision sector.

Under this proposal and funding, Vision 2020 Australia would facilitate establishment of:

1. The Eyes on Call hotline that any care worker or assessor could contact.
2. Referral of queries to eye sector organisations with specific expertise.
3. A follow up service to provide additional assistance and encourage skills enhancement.
4. Key information relevant to the worker and care context regarding common eye conditions and contacts for sourcing local eye care services.
5. An evaluation project to quantify reach and impacts of the service.

Further information can be provided on costs and implementation if required.

Assistive Technology for Older Australians with Vision Loss

Fund a national, harmonised scheme to provide Assistive Technology to older Australians with disabilities including vision loss

There are around 200,000 Australians over the age of 65 who are blind or have significant low vision. These people can often remain independent and continue living safely at home through the provision of a variety of Assistive Technology (AT).

But 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 don't provide sufficient funding for AT;
- Long waiting lists for Home Care packages often make them inefficient for delivering AT;
- The 65 state/territory based AT programs are difficult to navigate for both consumers 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.[10]

This budget should introduce a nationally consistent, harmonised scheme to deliver AT to people who are blind or have low vision.

[10] Australian Healthcare Associates for the Australian Government Department of Health 2020, review-of-assistive-technology-programs-in-australia-final-report_0.pdf (health.gov.au)

Streamlined Access for Children with Vision Loss

Introduce packages for children with vision loss entering the NDIS, similar to those which already exist for children with hearing loss.

It is vital that supports be introduced as early as possible for children with vision loss. Currently however, system settings for Early Childhood mean many children don't 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 isn't easily demonstrated in young children;
- Knowledge regarding available vision supports and the ideal approach for children is inconsistent among NDIS planners and assessors.

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

This budget should require the NDIA to work with its members to develop and fund a package of supports for children who have vision loss.

Securing Audio Description on Australian TV

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 can't 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. Amendment to the Broadcasting Services Act, similar to the legal mandate which has required provision of 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 a minimum amount of Audio Description per week. This amount would be set at:
    a) 14 hours per week in the 1st 3 years following implementation
    b) 21 hours per week in the 4th year following implementation and
    c) 28 hours per week from the 5th year following implementation.
2. Set quality standards for the provision of Audio Description, similar to those provided in the UK.
3. Require Audio Description that is broadcast on live television to also be available for on-demand or catch-up viewing.

Investment in Australian eye and vision research

Prevent avoidable vision loss and restore sight through the establishment of a dedicated vision mission within the Medical Research Future Fund $150M over 10 years

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.

Vision loss costs the Australian economy $27 Billion per year.[11] By 2030, the number of people experiencing vision loss is predicted to exceed 1.04 million.[12] We have an opportunity to develop innovative technology to prevent this forecast growth and deliver eye care services at greater scale.

Investment in clinical trials and the translation of pre-clinical innovations is essential to keep Australia, and its researchers at the leading edge. It is also a good investment, with a return of $10 for every $1 spent on eye health research (2009 figures[13]).

Vision 2020 Australia has led the development of a sector wide research agenda that identifies priority areas for immediate and long-term investment (Table C), providing a framework for a dedicated vision mission within the Medical Research Future Fund. A roadmap to facilitate Government implementation is in the process of being developed.

Creating a dedicated mission will accelerate sight saving treatment, enhance support and give life to Australia's commitment to further investment in research.

[11] Access Economics, 2010, *Clear Focus: The Economic Impact of Vision Loss in Australia in 2009: A Report prepared for Vision 2020 Australia*, Melbourne updated to 2021 dollar values by Health Consult, September 2021.

[12] Vision 2020 and Centre for Eye Research Australia, 2016, The National Eye Health Survey 2016.

[13] Ophthalmic Research Institute of Australia 2019, *ORIA Research Funding & Impact*, https://oria.org.au/wp-content/uploads/2012/02/ORIA-RESEARCH-IMPACT-REPORT-20191.pdf

Table C - 10 point plan to enhance Australian vision research

Focus area	Examples of research questions
Vision science	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?
Vision for life	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?
Increase the effectiveness of treatment	What are the markers of early-stage disease and disease progression that can inform therapy?
Applying precision medicine to eye disease	How can we use newer individual person specific features to improve testing and diagnosis of sight-threatening diseases?
Pre-clinical & Clinical Trials	How do we use enhanced clinical trials capacity to improve patient care?
Prevention	How do we enhance and embed preventive activities to reduce avoidable vision loss, and strengthen the underlying evidence base?
Screening & early detection	How can we improve detection strategies for sight-threatening disease to identify and treat those at highest lifetime risk of blindness or vision loss?
Enhance service delivery	How can we improve access to and uptake of high-quality eye care services?
Meeting the needs of Aboriginal and Torres Strait Islander Peoples (Closing the Gap)	How do we achieve equity of eye health and vision outcomes for Aboriginal and Torres Strait Islander peoples and embed community leadership and control?
Improving Patient Journey	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?

Increase public access to sight saving eye care treatment

Fund ophthalmology staff specialist positions in the public system and develop new and innovative eye health workforce strategies that improve access to cataract surgery and intravitreal injections in regional, rural and remote Australia

Cataract and macular diseases (including age-related macular degeneration and diabetic eye disease) are two of the leading causes of vision loss in Australia.[14] Fortunately, there are proven, cost effective treatments 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. To prevent a lifetime of avoidable blindness Australian's need timely access to these services.

To address the barriers Vision 2020 Australia recommends:

- Implementing a 90-day rule for cataract surgery, so patients are seen within 90 days of requesting an assessment and operated on within 90 days - and reporting of performance against this.
- An increase in publicly funded and/or affordable access to intravitreal injections[15] and benchmarks implemented that measure reach and timeliness.

[14] Cataract causes bilateral vision impairment in 20% of Aboriginal and Torres Strait Islander people aged 40 years and over and 14% of other Australians aged 50 years and older.

[15] In alignment with the Australia Governments National Strategic Action Plan for Macular Disease A better view - National Strategic Action Plan for Macular Disease (health.gov.au)

A National Framework for Children's Vision Screening

Australian Government endorsement of the Vision 2020 Australia National Framework for Children's Vision Screening to ensure all children have their eyes screened prior to starting school

Eye disorders are one of the most common long-term health problems experienced by Australian children.[16] 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.[17]

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 earnings than a person with clear vision.

Good vision is therefore integral to childhood development, learning and success later in life. Making it essential that conditions compromising children's vision are identified and treated early.

Children's vision screening programs in Australia have demonstrated good return on investment,[18] decreasing blindness in children and outweighing associated health care costs.[19] However, there is no consistent, evidence-based approach to screening, resulting in different approaches in each jurisdiction and variations in outcomes.

It is recommended the Government adopt 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. A copy of the framework can be found at Attachment A.

[16] Australian Institute of Health and Welfare (2008), *Eye Health among Australian children*, accessed 16 August 2021.
[17] American Optometric Association, "Comprehensive pediatric eye and vision examination" (Accessed 3/10/10) http://aoa.uberflip.com/i/807465-cpg-pediatric-eye-and-vision-examination/9?m4=
[18] Incremental cost effectiveness ratio of $13,942 per QALY gained.
[19] Integrated Care Strategy (2018), *Evaluation of the Statewide Eyesight Preschooler Program (StEPS) Final Report*, New South Wales Government, accessed 16 August 2021

Education for Children who are Blind or Have Low Vision

Implement the Expanded Core Curriculum nationally for students who are blind or have low vision and require universities to comply with accessible information and communications technology (ICT) procurement standards.

Students with disability have a right to access and participate in education on the same basis as students without disability.[20] 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.

To address this, the Expanded Core Curriculum has been developed which 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. But universities don't 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.

Requirements for all publicly funded universities to comply with accessible information and communications technology procurement standards should be put in place.

[20] [20] https://www.disabilitygateway.gov.au/sites/default/files/documents/2021-11/1786-australias-disability.pdf

Attachment A

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

18 November 2021

Contents

Foreword

Eye disorders are one of the most common long-term health problems experienced by Australian children[21]. 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)[22].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[23] and the United Nations resolution of 'Vision for Everyone: accelerating action to achieve the Sustainable Development Goals'[24].

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

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

[23] 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

[24] 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 Standard for Vision Screening in 3.5-5-year-olds

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[25] 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
    - 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 health practitioner. Additiionally, parents/carers have the right to have their child's eyes assessed

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

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[26]

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[27] as a minimum. Vision chart should be placed at the manufacturer's recommended test distance[28].

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.

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

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

[28] 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'[29] category to be re-screened, reducing false positive referrals and the burden on public health systems.

Pass	The distance vision is 6/12[30] 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.

[29] 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.

[30] 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[31]

- 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

[31] '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.

- Successful completion of prescribed competency package

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

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[32].

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.

[32] 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)[2] 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[33].
- 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[34].

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.

[33] 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.

[34] 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.

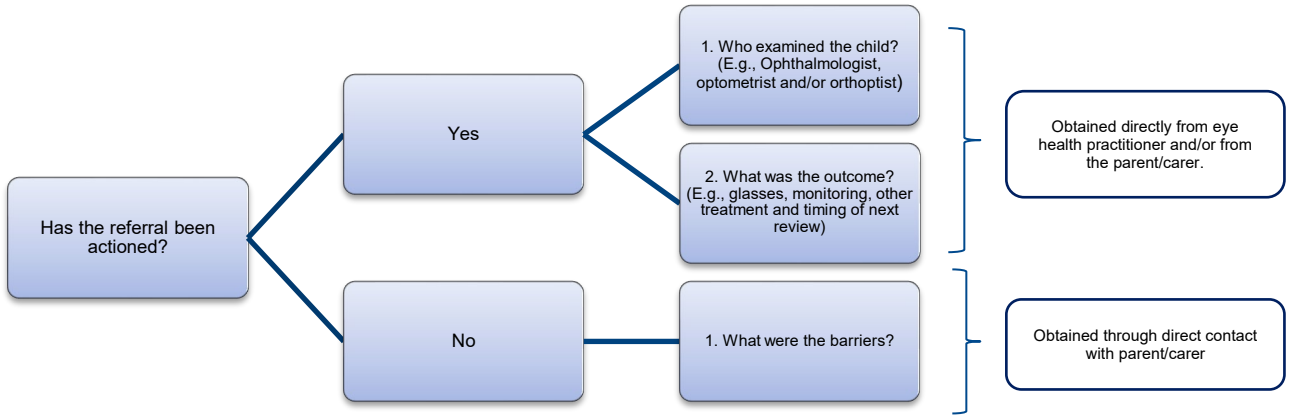
- Progress, outcomes and reported barriers to follow up care should be recorded within the information management system.

- 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.

The figure below (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; and
- Screening statistics
    - Consent rate
    - Screens conducted & outcomes
    - Diagnostic categories
    - Accuracy and appropriateness of screening referrals
    - Follow up rates and outcomes, including the time elapsed between screening and definitive follow up care
- Workforce statistics
    - Composition
    - Geographical distribution
    - 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[35]

  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.

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.

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

Appendices

Appendix A – Recommended Screening Locations/Sites

- Aboriginal Community Controlled Health Centres
- 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.