THE UNIVERSITY OF WESTERN AUSTRALIA

Department of Optometry
School of Allied Health

21 October 2022

Submission from University of Western Australia, Department of Optometry:
In response to request from Parliament of Western Australia regarding Child Development Services

	Optometry's role	**UWA's contribution**
The role of child development services on a child's overall development, health and wellbeing	Identify children at risk of/with binocular vision disorders such as amblyopia (lazy eye) and strabismus (turned eyes). These conditions place children at life-long risk of vision impairment and reduced productivity (Webber 2018). These conditions are best treated in childhood – children who miss out on this window are more likely to suffer life-long disadvantage in terms of job prospects and risk of future vision impairment. Identify children who have a focussing or eye alignment difficulty, or refractive error which can also have an impact on learning ability. Indigenous children have increased incidence of convergence insufficiency and visual information processing skills that would not be identified by non-optometric health care workers (and not always included in optometric screening protocols) (Queensland study: Hopkins 2016). Based on studies in rural Queensland, 35% of children screened required further treatment for refractive error, binocular vision and/or ocular health conditions Indigenous children were around half as likely to have had an eye test previously. The risk of future eye diseases increases significantly with higher degrees of myopia (short-sightedness). Interventions now exist to slow progression **for school aged myopic children**, which reduces their risk of visual impairment in the future. These interventions cannot be implemented for adults. Optometry has role advocating for changes in visual behaviour that can be protective (for instance recommendations regarding screen time and time spent outside).	School screenings by optometrists assess for refractive error, binocular vision issues and visual perceptual disorders, and provide support for education through schools/childcare centres. Referral point for ACCHO's and local community workers in rural areas Can refer through already established pathways to ophthalmology for tertiary care. Raise awareness of common vision conditions in children to enable greater detection of eye conditions Further research around myopia management for children, and service provision related to children's vision in rural Western Australia.

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How child development services are delivered in both metropolitan and regional Western Australia	Currently, child health nurses assess and refer children presenting for child development assessments in line with recommendations form the Commissioner for Children and Young People. This depends on parents bringing their children in for this assessment, and also seeking further care should a referral be required. There is no systematic approach to ensure children attend these appointments, and no support or follow-up provided if issues are found. Some ad hoc services are provided by sparsely situated optometrists concentrated in Perth but widely spaced throughout WA. Pathways between some local child development services and their nearby optometrists develop over years of caring for children together, but the number or success of these informal referral pathways are also unknown.	According to the Commissioner for Children and Young People website, 69.8% of children did not receive the 2-year old health check. Almost 20% of WA children remain developmentally vulnerable when they start school, and Aboriginal children are twice as likely to be developmental vulnerable. To address this, UWA will mobilise a supported network of practitioners and students (increased manpower to cover larger screening programs) with the knowledge, skills and resources to implement a standardised vision screening program.
The role of specialist medical colleges, universities & other training bodies in establishing sufficient workforce pathways	Adapt and implement international standardised child eye health screening protocols, to improve compliance, reporting, advocacy and visual outcomes. Embed vision screening programs into student placements in urban and rural centres, developing a workforce of future practitioners with the knowledge, attitudes and practices to screen and examine children	UWA Optometry is involved in **clinical teaching** (workforce development), **service delivery** (including schools, child care, healthcare centres, aboriginal controlled centres and hospitals) and **education** (expertise in health promotion, learning pedagogy, culturally sensitive content delivery and certification of health workers). UWA Optometry is engaging key stakeholders across medical and ophthalmological services throughout Perth metro, regional and rural WA. Many organisations (eg. Lions Eye Institute, West Australia Centre for Rural Health) are already taking or have agreed to take UWA optometry students on board for placement. UWA's newly graduated optometrists (the first to be trained in Western Australia) will be entering the workforce in early 2024. Highly trained in research and with experience in on-the-ground delivery of

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		culturally-sensitive, evidence based vision care in rural and regional settings, they have the skills and experience to significantly expand the eye-care work force in WA, especially in rural areas. UWA is uniquely positioned in the intersection between research (ascertaining key data and parameters of the issue) and delivery of evidence-based care through integrated multidisciplinary models. The Eye Health Centre Western Australia (EHCWA - UWA Optometry public eye clinic), will include eye care service delivery that includes special areas of expertise such as paediatrics, binocular vision, anterior eye diseases, posterior eye diseases, low vision and etc. Clinicians working with EHCWA will provide services at the local schools, and co-manage patients with child care, healthcare centres, aboriginal controlled centres and hospitals. In addition, the UWA Optometry facilities are increasingly going to be used by practicing Optometrists for activities of continuing professional development. In addition, the facilities are used by colleagues with medical expertise to train future doctors (eye related content and clinical skills).
How to increase engagement with, and collaboration between, government and non-government child development services including Aboriginal Community Controlled Organisations	A consistent presence is key. Having established protocols and procedures so referral criteria and pathways are clear and agreed by all parties, and checkpoints exist to ensure good outcomes. Collaboration between university, government, peak bodies and health care providers is key for the sustainability and longevity of programs. Often services exist because of personal	UWA already has advanced discussions with ACCHO's for placement of students at some rural sites. UWA already provides services at NG lands in eastern WA. UWA will begin a clinic at Midland with Lions on 24/10 aimed at improving care to Aboriginal and refugee patients, and this group also have children who require care and a similar pathway.

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	relationships which can break down if people move away, retire or change jobs. Long term planning is critical when working with ACCHO's, where developing trusted relationships over many years is crucial.	
How child development service models and programs outside of Western Australia could be applied in Western Australia.	**Victoria** – MIST (visual acuity) screening through Maternal and Child Health Nurses – children aged 3.5-4 brought by parents for normal child development check at this age, referred to optometry if reduced acuity in one or both eyes, or if concerns regarding strabismus earlier than this (no data on uptake or outcomes).The Victorian Government also provides the Glasses for Kids program which screens children at some selected schools in areas of disadvantage and provides free glasses. **NSW** – StEPS program – referral at <6/9, referral rate 19%, 11% lost to follow up) Both require follow up care, which may be harder in disadvantaged communities due to a range of barriers. **QLD** therefore adopted a school-based approach run by nurses (Primary School Nurse Health Readiness Program Prep Vision Screening). Forty-two per cent of Aboriginal children participating in the AEDC in 2015 lived in communities classified as the most disadvantaged, in comparison to 10 per cent of non-Aboriginal children, so this may be the best approach in WA.	UWA has an advantage in that the same software will exist across sites to allow for data collection so further research can be conducted to determine the unique challenges of WA which is not well known at this time. Keeping track of referrals, treatment and outcomes would be useful across WA but also Australia-wide. School based approach may be best initially. Any program set up involving nurses or health care workers requires clear guidelines for referral to optometry who can triage and manage the majority of cases (incidences of disease requiring ophthalmological care or strabismus requiring care are low, and can be referred once assessed by optometry) The best visual outcomes for children in Western Australia will be achieved with a **multidisciplinary approach** involving optometry, ophthalmology, orthoptics, child-care, schools, paediatricians, general medicine, ACCHO's and other allied health practitioners. An optometry-led working group that explored delivery and referral pathways from screening to tertiary level would provide a streamlined and efficient use of the available workforce while reducing the risk of leaving children in need.

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