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Strengthening Indigenous eye care in Australia and New Zealand through a Leaders in Indigenous Optometry Education Network

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The leaders of optometry schools in Australia and New Zealand/Aotearoa aim to establish a Leaders in Indigenous Optometry Education Network (LIOEN) dedicated to strengthening Indigenous eye care through better educating optometry students and increasing the number of Indigenous optometrists.

Background

In 1995, the World Health Organization highlighted the need for medical schools to be socially accountable and defined this as the obligation to direct their education, research and service activities toward addressing the priority health concerns of the communities they serve.¹ Social accountability not only applies to medical schools, but to all schools involved in training healthcare providers, including optometry schools. An important national priority in Australia and New Zealand/Aotearoa that optometry schools should address is Indigenous eye health.

Article 24 of the United Nations Declaration on the Rights of Indigenous Peoples (2007) states that Indigenous peoples have an equal right to the highest attainable standard of health.² Similarly, the principle of protection in Article 3 of the Treaty of Waitangi (1840) involves the New Zealand Government working to ensure that Māori have the same rights and privileges to health as other New Zealanders.³ However, Indigenous

people continue to be marginalised due to colonialism and racism, and as a result have reduced life expectancy and considerably poorer health compared with non-Indigenous people.⁴ Vision loss contributes up to 11% of the health gap⁵ and is 2.8 times more prevalent among Aboriginal and Torres Strait Islanders than other Australians.⁶ The leading causes are uncorrected refractive error (60.8%), cataract (20.1%) and diabetic retinopathy (5.2%); all correctable or avoidable.⁶ However, approximately one-third of Aboriginal and Torres Strait Islander adults have not had an eye examination within the previous two years⁷ and one-third of Māori and Pasifika adults have never had an eye examination.⁸ Barriers to accessing healthcare include lack of services in or near Indigenous communities, cultural and language differences with healthcare providers, institutional racism and individual provider biases resulting in reduced engagement with non-Indigenous services, and associated costs.⁹

The role of optometry schools

The National Aboriginal and Torres Strait Islander Health Plan 2013–2023 and the Whakamaui: Māori Health Action Plan 2020–2025 highlight the need for better-educated health professionals delivering care to Indigenous people and for more Indigenous health professionals to ensure the delivery of culturally safe care, the

engagement of Indigenous people in their own healthcare, developing culturally safe workplaces and addressing institutionalised racism.^{10,11} Indeed, Vision 2020 Australia has recognised these priorities in a specific plan for the eye care sector.¹² Furthermore, the Australian Health Practitioner Regulation Agency (AHPRA), the 15 national health practitioner boards (including the Optometry Board of Australia), accreditation authorities (including the Optometry Council of Australia and New Zealand [OCANZ]), and Aboriginal and Torres Strait Islander health sector leaders and organisations recently produced a Statement of Intent and a strategic plan to work together to achieve equity in health outcomes between Aboriginal and Torres Strait Islander peoples and other Australians by 2031.^{13,14} These organisations have committed to achieving a vision of Aboriginal and Torres Strait Islander patient safety being the norm, through the application of the Health Practitioner Regulation National Law,¹⁵ by ensuring:

- a culturally safe health workforce supported by nationally consistent standards, codes and guidelines;
- increased participation of Aboriginal and Torres Strait Islander people in the registered health workforce;
- greater access for Aboriginal and Torres Strait Islander people to culturally safe health services; and
- the use of leadership and influence to achieve reciprocal goals.

Consistent with the obligations of health professional educators and these national eye care sector and health practitioner regulatory strategic plans, there are two important ways in which optometry schools can reduce eye health inequities. These are: firstly, by integrating cultural safety and Indigenous perspectives into the curricula; and secondly, by improving the recruitment and graduation of Indigenous students. The concept of cultural safety was developed in an Indigenous context in New Zealand/Aotearoa based on the work of Ramsden¹⁶ and has since been accepted in Australia.¹⁷ It focusses on how people are treated in society, social determinants of health and practitioner self-awareness of the cultural lens through which they view the world, not peoples' diversity. It represents a shift from

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providing care regardless of differences to care that takes peoples' unique needs into account.¹⁷ In Australia and New Zealand/Aotearoa, cultural safety provides a decolonising model of practice based on dialogue, communication, power-sharing and negotiation, and the acknowledgement of white privilege to challenge racism at personal and institutional levels and establish trust in healthcare encounters.¹⁷ While there are various characterisations of cultural safety, the definition agreed across AHPRA-regulated health professions is:

*Cultural safety is determined by Aboriginal and Torres Strait Islander individuals, families and communities. Culturally safe practice is the ongoing critical reflection of health practitioner knowledge, skills, attitudes, practising behaviours and power differentials in delivering safe, accessible and responsive healthcare free of racism.*¹³

The understanding is that the inclusion of quality cultural safety training in curricula will not only produce better practitioners but will also influence other important changes, such as increased recruitment and graduation rates for Indigenous students (as the program itself will be culturally safe), and increased representation of Indigenous staff within the higher education sector.¹⁸ Although some work has been undertaken to improve cultural safety training in optometry programs, there is variability in the curricula,¹⁹ there are few Indigenous graduates and there are few Indigenous academics involved in programs.

The critical role that optometry schools have in further improving Indigenous eye health through education has been formally recognised since 2010 in the Roadmap to Close the Gap for Vision,²⁰ where goals include increasing the capacity of educational institutions to create culturally safe practitioners and offering students clinical experience in Indigenous health settings. More recently, and similar to several other accreditation organisations,²¹ OCANZ has also recognised the role of educational institutions by mandating compulsory Indigenous health curricula in optometry.²² Furthermore, to expand and increase the consistency of the curricula, OCANZ provided much-needed specific guidance to optometry schools by developing the Optometry Aboriginal and Torres Strait Islander Health Curriculum Framework in 2019 as an adaptation of – and complementary to – the 2014 Aboriginal and Torres Strait Islander Health Curriculum

Framework.²³ A framework for Māori and Pasifika health curriculum is also in progress. However, with few optometry academics who identify as Indigenous and other optometry academics in need of further training, challenges remain.

Graduating Indigenous optometrists has been even more of a challenge than integrating cultural safety into the curricula. Just 1% of Australia's regulated health professions identify as Aboriginal and/or Torres Strait Islander, well short of the 3.3% representation in the general population.²⁴ Aside from Aboriginal and Torres Strait Islander health practitioners, where being Aboriginal and/or Torres Strait Islander is a requirement, the professions with the second-highest representation at 1.2% are nursing and midwifery. Unfortunately, optometry in Australia has the lowest representation at 0.1% (7 out of 5,781 registered optometrists).²⁴ Representation is no better in New Zealand/Aotearoa, where an estimated 2% of 931 registered optometrists identify as Māori or Pasifika,²⁵ considerably less than the 24.6% representation in the general population.²⁶ Without further intervention, representation is unlikely to improve as much as needed, as there are thought to be only six Indigenous students currently enrolled across the seven accredited optometry programs in Australia and New Zealand/Aotearoa. Although most optometry schools are linked to a variety of university programs, entry pathways, scholarships and supports that aim to increase Indigenous student recruitment, these have had minimal impact. Accepting a health workforce that fails to reflect the communities it aims to serve is unjust and is likely to be contributing to the ongoing inequities in health and healthcare.²⁷

While optometry is a relatively small health profession and optometry schools may not have been as well-resourced as medicine and nursing schools, we have a responsibility and must do more to improve Indigenous eye health.

Lessons and guidance from current networks and initiatives

Optometry Council of Australia and New Zealand

With the recent launch of the OCANZ Optometry Aboriginal and Torres Strait Islander Health Curriculum Framework,²³ there is an impetus for educators to transform cultural safety and Indigenous perspectives training in optometry programs. The

Framework has been developed to address the need for greater integration of cultural safety into optometry programs and aims to prepare graduates to provide culturally safe health services. The recommended curriculum themes are:

- Integrating cultural safety into reflective practice and professionalism;
- History and diversity of Aboriginal and Torres Strait Islander peoples, the post-colonial experience and implications for population health and healthcare practice; and
- Delivery of culturally safe eye healthcare in partnership with Aboriginal and Torres Strait Islander health professionals, organisations and communities.²³

Acknowledging that support is needed to implement the Framework, OCANZ has conducted two educator workshops to date. However, at present, educators not only lack curriculum and assessment resources, but also have limited experience and confidence in this field. For the Framework to be successfully embedded in curricula, to deepen the understanding of cultural safety in the discipline and to change practice, the upskilling and continuing development of optometry educators is essential, as is a collaborative platform for sharing and co-creating high-quality, effective teaching resources.

Medicine and nursing are more advanced in these endeavours. As part of the Medical Deans Indigenous Health Project, the Leaders in Indigenous Medical Education (LIME) Network was established in 2005, funded by the Australian Government.²⁸ Similarly, the Leaders in Indigenous Nursing and Midwifery Education Network (LINMEN) was established in 2017.²⁹ The leaders of Australian and New Zealand/Aotearoa optometry programs agree that it is time for a Leaders in Indigenous Optometry Education Network (LIOEN), dedicated to better educating optometry students in cultural safety and Indigenous perspectives and taking collective responsibility for increasing the unacceptably low number of Indigenous optometrists.

Leaders in Indigenous Medical Education Network

The LIME Network aims to ensure the quality and effectiveness of teaching and learning of Indigenous health in medical education, as well as best practice in the recruitment and retention of Indigenous medical students and

trainees.²⁸ The LIME Network was established and formalised at its inaugural conference, the 'LIME Connection', in Fremantle, Western Australia, in 2005.³⁰ It became a stand-alone project in 2008, forming part of the broader Medical Deans 'Closing the Gap' program, with secured funding from the Australian Government until 2020.

The LIME Network, hosted by the Faculty of Medicine, Dentistry and Health Sciences at The University of Melbourne, is managed by a small staff group who maintain, expand and deliver resources and services, and by a reference group that comprises academic and professional staff representing each medical school in Australia and New Zealand/Aotearoa, nominated by the Dean. Where possible, representatives are Indigenous. The role of the reference group is to develop and support the implementation of strategic initiatives, as well as to provide peer networking and professional development and contribute to the engagement strategy and specific program work.

The LIME Network maintains a highly valued website³¹ that has curriculum resources (including case studies, seminars, newsletters, CDAMS Indigenous Health Curriculum Framework³² and accreditation tools), reports from each of the biennial 'LIME Connection' conferences, pathways to medicine/specialisation for students and student resources; all are available for free public download. Members of the LIME Network include more than 1,000 medical educators, specialists, policy makers, medical students and community members engaged with Indigenous health and health professional education. Evaluations indicate that the LIME Network has been successful in contributing to the increase in Indigenous students enrolled in medicine and the consistency and quality of Indigenous health learning and teaching in medicine.^{30,31}

Leaders in Indigenous Nursing and Midwifery Education Network

In 2017, the Congress of Aboriginal and Torres Strait Islander Nurses and Midwives (CATSINaM) received funding support from the Australian Government Department of Health to establish LINMEN. The goal of LINMEN is to improve the quality of cultural safety education and training for students and educators in nursing and midwifery.²⁸ Governance and management of LINMEN falls under CATSINaM, which was established in 1997 to represent Aboriginal and Torres

Strait Islander nurses and midwives and to increase the recruitment and retention of Aboriginal and Torres Strait Islander people in nursing and midwifery. A collaborative peer support network, LINMEN works to achieve its goals through an online platform designed to help members connect and collaborate, access resources and share projects related to teaching cultural safety and Aboriginal and Torres Strait Islander health, history and culture. LINMEN maintains a comprehensive resource database that provides free access to journal articles, reports, videos, book chapters, conference papers and project resources for members. Additionally, regular networking events and professional development opportunities are provided. Membership is free and open to nursing and midwifery educators and education providers.

Indigenous Allied Health Australia and Ngā Pou Mana

Although there is not yet an optometry equivalent of CATSINaM, the Australian Indigenous Doctors' Association or Te Ohu Rata ōAotearoa Māori Medical Practitioners Association, Indigenous Allied Health Australia (IAHA) and Ngā Pou Mana have strategic priorities that include growing the future Indigenous allied health workforce and transforming the cultural safety of the allied health sector, as well as supporting current Indigenous allied health professionals. Established in 2009, IAHA's 1,610 members are diverse and the organisation works across sectors.³³ Likewise, Ngā Pou Mana's diverse membership has grown five-fold to 570 in just two years. Perhaps partnerships with these broader interdisciplinary organisations could result in achieving shared goals with greater efficiency and effectiveness. Additionally, there is an opportunity for optometry to model Indigenous leadership and self-determination from the outset of an Indigenous education network in health.

How to strengthen Indigenous eye care through education

It is time for optometry schools to advance a radical improvement in Indigenous eye health in Australia and New Zealand/Aotearoa through higher education and, in doing so, to address privilege and stand against racism. Recently, specific direction and guidance have been provided through AHPRA's National Scheme's Aboriginal and Torres Strait Islander Health and Cultural Safety Strategy 2020–2025¹³ and the OCANZ

Optometry Aboriginal and Torres Strait Islander Health Curriculum Framework.²³ However, to implement and embed these, optometry educators need a supportive, coordinated approach, much like LIME and LINMEN. The leaders of optometry programs are committed to improving Indigenous eye health through the establishment of LIOEN in partnership with Indigenous leaders (and headed by Indigenous optometrists as soon as possible) by:

- embedding cultural safety and Indigenous perspectives across optometry curricula;
- developing, sourcing, sharing and delivering high-quality learning and teaching on cultural safety and Indigenous perspectives;
- supporting a community of practice and professional development for optometry educators;
- promoting and nurturing a culturally safe learning environment for optometry students; and
- growing the number of Indigenous optometrists entering the workforce to meet demand.

We recognise that this cannot be achieved without partnering with Indigenous peoples, that it will require critical individual and institutional reflection, that it will be a considerable undertaking and will take time. Given limited resources and the enormous workload placed upon Indigenous leaders and educators, working collaboratively with other healthcare professions might increase the effectiveness of Indigenous education networks and the likelihood of sustainability, resulting in a healthcare system free of racism and better health outcomes for all.

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References

1. Boelen C, Heck JE. *Defining and Measuring the Social Accountability of Medical Schools*. Geneva (CHE): World Health Organization; 1995.
2. UN General Assembly. *United Nations Declaration on the Rights of Indigenous Peoples: Resolution / Adopted by the General Assembly*. Report No.: A/RES/61/295. New York (NY): United Nations; 2007.

3. New Zealand History. *Treaty of Waitangi 1840 February 6: Article the third [Article 3] - The Crown Gave an Assurance that Māori would Have the Queen's Protection and All Rights (Tikanga) Accorded to British Subjects*. Wellington (NZ): New Zealand Ministry for Culture and Heritage; 2020.
4. Anderson I, Robson B, Connolly M, Al-Yaman F, Bjertness E, King A, et al. Indigenous and tribal peoples' health (The Lancet-Lowitja Institute Global Collaboration): A population study. *Lancet*. 2016;388(10040):131-57.
5. Vos T, Taylor HR. Contribution of vision loss to the Indigenous health gap. *Clin Exp Ophthalmol*. 2013;41(3):309-10.
6. Foreman J, Xie J, Keel S, van Wijngaarden P, Sandhu SS, Ang GS, et al. The prevalence and causes of vision loss in indigenous and non-indigenous Australians: The National Eye Health Survey. *Ophthalmology*. 2017;124(12):1743-52.
7. Foreman J, Xie J, Keel S, Taylor HR, Dirani M. Utilization of eye health-care services in Australia: The National Eye Health Survey. *Clin Exp Ophthalmol*. 2018;46(3):213-21.
8. Ahn MJ, Frederikson L, Borman B, Bednarek R. Eye health in New Zealand: A study of public knowledge, attitudes, and practices related to eye health and disease. *Health Educ*. 2011;111(2):147-55.
9. United Nations Permanent Forum on Indigenous Issues. *State of the World's Indigenous Peoples: Indigenous Peoples' Access to Health Services* [Internet]. New York (NY): United Nations Department of Economic and Social Affairs; 2015 [cited 2020 Sep 6]. Available from: <https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/03/The-State-of-The-Worlds-Indigenous-Peoples-WEB.pdf>
10. Australian Department of Health and Ageing. *National Aboriginal and Torres Strait Islander Health Plan 2013-2023* [Internet]. Canberra (AUST): Government of Australia; 2013 [cited 2020 Sep 6]. Available from: [https://www1.health.gov.au/internet/main/publishing.nsf/content/B92E980680486C3BCA257BF0001BAF01/\\$File/health-plan.pdf](https://www1.health.gov.au/internet/main/publishing.nsf/content/B92E980680486C3BCA257BF0001BAF01/$File/health-plan.pdf)
11. NZ Ministry of Health. *Whakamaua: Māori Health Action Plan 2020-2025* [Internet]. Wellington (NZ): Government of New Zealand; 2020 [cited 2020 Sep 6]. Available from: <https://www.health.govt.nz/publication/whakamaua-maori-health-action-plan-2020-2025>
12. Vision 2020 Australia. *Strong Eyes, Strong Communities: A Five Year Plan for Aboriginal and Torres Strait Islander Eye Health and Vision 2019-2024* [Internet]. Melbourne (AUST): Vision 2020 Australia; [cited 2020 Sep 6]. Available from: <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>
13. Australian Health Practitioner Regulation Agency. *National Scheme's Aboriginal and Torres Strait Islander Health and Cultural Safety Strategy 2020-2025* [Internet]. Melbourne (AUST): AHPRA; 2020 [cited 2020 Sep 6]. Available from: <https://www.ahpra.gov.au/About-AHPRA/Aboriginal-and-Torres-Strait-Islander-Health-Strategy.aspx>
14. Australian Health Practitioner Regulation Agency. *National Scheme Aboriginal and Torres Strait Islander Health Strategy Statement of Intent*. Melbourne (AUST): AHPRA; 2018.
15. *Health Practitioner Regulation National Law Act 2009. Act Number 79/2009. Version 006*.
16. Ramsden IM. *Cultural Safety and Nursing Education in Aotearoa and Te Waipounamu* [Dissertation]. Wellington (NZ): Victoria University of Wellington; 2002.
17. Congress of Aboriginal and Torres Strait Islander Nurses and Midwives. *The Nursing and Midwifery Aboriginal and Torres Strait Islander Health Curriculum Framework: An Adaptation of and Complementary Document to the 2014 Aboriginal and Torres Strait Islander Health Curriculum Framework* [Internet]. Canberra (AUST): CATSINaM; 2017 [cited 2020 Sep 6]. Available from: <https://www.catsinam.org.au/static/uploads/files/nursing-midwifery-health-curriculum-framework-final-version-1-0-wffegyedblq.pdf>
18. Burn H, Black J, Harwood M, Gordon I, Burnett AM, Hamm LM, et al. Eye care delivery models to improve access to eye care for Indigenous people in high-income countries: Protocol for a scoping review. *BMJ Open*. 2019;9(7):e029214.
19. Truong M, Bentley SA, Napper GA, Guest DJ, Anjou MD. How Australian and New Zealand schools of optometry prepare students for culturally competent practice. *Clin Exp Optom*. 2014;97(6):540-9.
20. Taylor HR, Boudville AI, Anjou MD. The roadmap to close the gap for vision. *Med J Aust*. 2012;197(11):613-15.
21. Pitama SG, Palmer SC, Huria T, Lacey C, Wilkinson T. Implementation and impact of indigenous health curricula: A systematic review. *Med Educ*. 2018. doi: 10.1111/medu.13613.
22. Optometry Council of Australia and New Zealand. *Accreditation Standards and Evidence Guide for Entry-Level Optometry Programs. Part 2 - Standards* [Internet]. Melbourne (AUST): OCANZ; 2016 [cited 2020 Sep 6]. Available from: <https://www.ocanz.org/assets/Accreditation/10102e093c/PART-2-Accreditation-Standards-and-Evidence-Guide-for-Entry-Level-Optometry-Programs-Effective-1-Jan-2017.pdf>
23. Optometry Council of Australia and New Zealand. *Optometry Aboriginal and Torres Strait Islander Health Curriculum Framework: An Adaptation of and Complementary Document to the 2014 Aboriginal and Torres Strait Islander Health Curriculum Framework* [Internet]. Melbourne (AUST): OCANZ; 2019 [cited 2020 Sep 6]. Available from: <https://www.ocanz.org/assets/Accreditation/1e67933cc4/Optomtery-Aboriginal-Torres-Strait-Islander-HCF-OCANZ-Board-October-2018.pdf>
24. Australian Health Practitioner Regulation Agency and National Boards. *2018/19 Annual Report. Our National Scheme: For Safer Healthcare* [Internet]. Melbourne (AUST): AHPRA 2019 [cited 2020 Sep 6]. Available from: <https://www.ahpra.gov.au/Publications/Annual-reports/Annual-Report-2019.aspx>
25. Optometrists and Dispensing Opticians Board. *Annual Report 2018/19* [Internet]. Auckland (NZ): ODOB; 2019 [cited 2020 Sep 6]. Available from: <https://www.odob.health.nz/wp-content/uploads/2019/08/WEB-Annual-Report-YE-31.03.19.pdf>
26. Stats NZ. *2018 Census Data Allows Users to Dive Deep into New Zealand's Diversity* [Internet]. Wellington (NZ): Government of New Zealand; 2018 [cited 2020 Sep 6]. Available from: <https://www.stats.govt.nz/news/2018-census-data-allows-users-to-dive-deep-into-new-zealands-diversity>
27. Curtis ET. Vision 20:20 and indigenous health workforce development: Institutional strategies and initiatives to attract underrepresented students into elite courses. In: Shah M, McKay J, editors. *Achieving Equity and Quality in Higher Education Palgrave Studies in Excellence and Equity in Global Education*. London (UK): Palgrave Macmillan; 2018. p. 119-42.
28. *The LIME Network. Leaders in Indigenous Medical Education* [Internet]. Carlton (AUST): University of Melbourne; 2020 [cited 2020 Sep 6]. Available from: <https://www.limenetwork.net.au/about-us/the-lime-network/>
29. LINMEN. *The Leaders in Nursing and Midwifery Education Network* [Internet]. Canberra (AUST): CATSINaM; 2018 [cited 2020 Sep 6]. Available from: <https://www.linmen.org.au/home/>
30. Haynes TM, Collins ME, Mazel O, Lawler LM, Ryan C, Ewen SC. History of the LIME Network and the development of Indigenous health in medical education. *Med J Aust*. 2013;199(1):65-8.
31. Mazel O, Ewen S. Innovation in indigenous health and medical education: The Leaders in Indigenous Medical Education (LIME) Network as a community of practice. *Teach Learn Med*. 2015;27(3):314-28.
32. Phillips G. *CDAMS Indigenous Health Curriculum Framework* [Internet]. Melbourne (AUST): University of Melbourne VicHealth Koori Health Research and Community Development Unit; 2004 [cited 2020 Sep 6]. Available from: <https://medicaldeans.org.au/md/2018/07/CDAMS-Indigenous-Health-Curriculum-Framework.pdf>
33. Indigenous Allied Health Association. *Annual Report 2018-2019* [Internet]. Canberra (AUST): IAHA; 2019 [cited 2020 Sep 6]. Available from: http://iaha.com.au/wp-content/uploads/2019/09/IAHA_AReport_AW_2019_vFINAL_WEB.pdf

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