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Educating for Indigenous health equity: An international consensus statement

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Educating for Indigenous Health Equity: An International Consensus Statement

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Abstract

The determinants of health inequities between Indigenous and non-Indigenous populations include factors amenable to medical education's influence, for example, the competence of the medical workforce to provide effective and equitable care to Indigenous populations. Medical education institutions have an important role to play in eliminating these inequities. However, there is evidence that medical education is not adequately fulfilling this role, and in fact may be complicit in perpetuating inequities.

This article seeks to examine the factors underpinning medical education's role in Indigenous health inequity, in order to inform interventions to address these factors. The authors developed a consensus statement that synthesizes evidence from research, evaluation, and the collective experience of an international research collaboration including experts in Indigenous medical education. The statement describes foundational processes that limit Indigenous health development in medical education and articulates key principles that can be applied at multiple levels to advance Indigenous health equity.

The authors recognize colonization, racism, and privilege as fundamental determinants of Indigenous health that are also deeply embedded in Western medical education. In order to contribute effectively to Indigenous health development, medical education institutions must engage in decolonization processes and address racism and privilege at curricular and institutional levels. Indigenous health curricula must be formalized and comprehensive, and must be consistently reinforced in all educational environments. Institutions' responsibilities extend to advocacy for health system and broader societal reform to reduce and eliminate health inequities. These activities must be adequately resourced and underpinned by investment in infrastructure and Indigenous leadership.

Globally, health disparities between Indigenous and non-Indigenous populations are ubiquitous and pervasive,¹⁻⁴ and are recognized as being unfair, avoidable, and remediable.^{5,6} These inequities exist due to a breach of rights including the right to health.^{7,8} We reaffirm the sovereignty and rights of Indigenous peoples worldwide, including the right to health.⁹

While there is no official definition of Indigenous peoples, key features include self-identification, historical continuity with pre-colonial or pre-settler societies, links to territories and surrounding natural resources, and distinct social, economic, or political systems. There are estimated to be over 370 million Indigenous people in 70 countries worldwide.¹⁰ The focus of this article is the health of Indigenous peoples in Western settler-colonial contexts such as Australia, New Zealand, Canada, and the United States.

The determinants of inequity between Indigenous and non-Indigenous populations include factors that are amenable to the influence of medical education.¹¹ Medical education institutions have an obligation to improve health in their communities.^{12,13} Social justice is one of the three fundamental principles of medical professionalism,¹⁴ which confers a responsibility on medical education institutions and practitioners to address those determinants of inequity that are within their scope of influence.¹⁵⁻¹⁹ Such a responsibility manifests at the curricular level but also through more distal pathways in terms of research, advocacy, and leadership.

There have been significant recent advances in the emerging discipline of Indigenous health in medical education²⁰⁻²³ and in frameworks for designing Indigenous health curricula.²⁴⁻²⁶ Despite these developments and the acknowledged challenges in determining causal associations,²⁷ there is limited evidence that medical education initiatives have effectively translated into improved health outcomes for Indigenous populations or a reduction in disparities.^{28,29}

In this article, we seek to examine the factors affecting Indigenous health development in medical education in order to inform system-wide approaches to improve the contribution of medical education to Indigenous health equity. We present a consensus statement based on a synthesis of evidence-informed opinion and experience of Indigenous medical education specialists from Australia, Canada, Hawai'i, and Aotearoa/New Zealand.

The purposes of the consensus statement are twofold. First, it seeks to describe foundational processes that limit Indigenous health development in medical education. Second, it seeks to articulate key principles for medical education institutions to better meet their obligations to address health inequities between Indigenous and non-Indigenous populations. The strength of the statement lies in the consensus on core issues between researchers, educators, and practitioners working in diverse contexts internationally. To our knowledge this is the first statement of this nature on Indigenous health in medical education.

Defining the Scope of the Consensus Statement

This consensus statement explicitly addresses Indigenous health, which is recognized as a distinct and important domain of professional competency in the medical education systems of Australia, New Zealand, and Canada.³⁰ The statement has a broad scope, encompassing the medical education continuum from undergraduate programs to specialty training and continuing professional development. Although the statement relates specifically to medical education, many of the principles and recommendations are applicable to education in other health professions.

The statement highlights key underlying factors and important principles for medical education institutions, as they aim to meet their obligations to improve Indigenous health and reduce inequities. In articulating these principles, we acknowledge the significant body of work that has

contributed to development of the field to date, which is represented in a number of national guidelines, curriculum frameworks, and other resources.^{22–26,31–33} This statement seeks to build on, rather than duplicate, the directives in these documents that are already being addressed in medical education. Rather than recommending specific actions or tasks, we articulate key principles that should underpin institutions' efforts to promote effective Indigenous health development. These principles are overarching and are intended to be applied at all levels, including by accreditation bodies and in relevant policy and legislative development. We first describe the methods for developing the consensus statement, followed by the statement itself. The statement discusses the underlying factors and outlines the key principles, explaining how they can guide medical education reform. The key principles are summarized at the end of the article.

Our Method for Developing the Consensus Statement

This statement was developed by drawing together evidence from research, evaluation, and the experience of a selected group of researchers with established expertise in Indigenous medical education. The team was constituted from members of Educating for Equity, an international research project seeking to improve Indigenous health through health professions education.³⁴ The project is Indigenous-led and includes both Indigenous and non-Indigenous investigators from three countries (including all authors from Australia, Canada, and Aotearoa/New Zealand). Collaborative research activities also involved a Native Hawaiian medical educator (M.K.), who joins the Educating for Equity investigators as a co-author of this consensus statement. We have considerable depth and breadth of experience in Indigenous health education across four countries, having supported, advocated for, developed, and implemented Indigenous health curricula within our respective institutions. This experience encompasses diverse health

professions education settings, including undergraduate and postgraduate medical education as well as education in other health professions, and participation in varied roles including institutional and program leadership, curriculum development, research, and teaching.

A consensus statement was chosen as the most effective way to synthesize the outcomes and insights from the broad range of research activities and wider experience of this group of experts. Consensus development is a process for making policy decisions drawing on available information, including scientific data and the collective wisdom of participants.³⁵ Consensus methods allow the use of a wide range of information, and where published evidence is lacking they allow expert insights to be harnessed in order to inform decision-making.³⁶ A medical consensus can be defined as a public statement on a particular aspect of medical knowledge that is generally agreed upon as an evidence-based, state-of-the-art knowledge by a representative group of experts in that area.³⁷

Development of this consensus statement was based on a collaborative and inclusive process that recognized the importance of Indigenous leadership and experience at all stages. The process comprised two phases. In the first phase, organic development of the ideas underpinning the statement occurred during research activities over six years as part of the Educating for Equity project, reflecting a synthesis of research-based outcomes and insights from our experiences. In the second phase, we refined and clarified these ideas using a consensus building process that corresponds to Glaser's "state-of-the-art" method.³⁸

The purpose of phase 1 was to develop and frame the ideas that would be subject to further analysis and explication in phase 2. We carried out foundational work at meetings in Vancouver, Canada, in August 2010 and in Auckland, Aotearoa/New Zealand, in December 2011, where sharing experiences and insights formed the genesis of the ideas in this statement. These early

exchanges identified the need to focus research efforts on the principles underpinning effective Indigenous health development in medical education.

We further refined these preliminary ideas through detailed work on particular aspects of Indigenous health education that centered around a meeting in Honolulu, Hawai‘i, in October 2012. Two specific projects were developed over a period of time leading up to the meeting, each involving a structured focus group method³⁹ at the meeting followed by collaborative analysis and interpretation of data by the research team in the subsequent period. The focus groups sought to identify core attributes in the domain of Indigenous health for graduates of ~~attributes in~~ medical education programs, and develop a typology for pedagogical approaches to Indigenous health teaching and learning in medical education. Responses were recorded on a whiteboard during the meeting, which facilitated a level of collective synthesis and interpretation during the focus group. They were then reviewed and summarized by a subgroup of the researchers (K.J., B.C.) before being circulated to all investigators for further analysis and interpretation. This collaborative work led to shared development of themes and framing of research outputs.

Phase 2 commenced at a research team meeting in Perth, Australia, in March 2016 where a formal process of synthesizing the shared international experience into a consensus statement was initiated. Key principles that we believe must underpin efforts by medical education institutions to improve Indigenous health and recommendations to promote effective Indigenous health development were identified at the meeting and were summarized in an outline that was circulated to all authors, seeking high-level input. As a result of feedback from the research team, a draft consensus statement was prepared by one author (R.J.) and circulated to all other authors for detailed feedback. After collating feedback, a series of three meetings were held involving

the lead representative from each of the three Educating for Equity countries (R.J., S.E., and L.C.), at which decisions were made about how to address critical issues where consensus had not yet been reached, or clarification was required. Two further drafts were written and circulated for feedback from all authors, following which a final draft was produced.

External validation is an important aspect of a consensus building process.³⁸ The research underpinning this consensus statement has been extensively scrutinized by Indigenous health and medical education specialists outside of the research team. The body of work that has contributed to and informed the statement has been published and presented at national and international fora and has been subject to peer-review and external feedback.^{28,29,40-49} All substantive feedback was recorded by investigators and shared with the wider research group periodically at meetings over the course of the project. The resulting understandings and insights have been progressively incorporated into our research and teaching work. Collectively, therefore, external feedback has strongly informed the principles and recommendations we present, and the extensive peer review of the underpinning research provides rigorous validation of the conclusions emerging from that work.

The Consensus Statement

The contemporary Indigenous experience in the authors' respective countries, in common with many other Indigenous communities around the globe, is fundamentally driven by the legacy and continued impacts of colonization.¹⁷⁻¹⁹ However, Indigenous peoples and cultures have survived and often thrived in these hostile environments.⁵⁰ This speaks to the strength and resilience of Indigenous peoples, who bring important worldviews, health systems, and knowledge systems that have been practiced and strengthened over thousands of years on these lands.

The consensus building process identified a range of issues, all of which were consistently linked to three underlying themes: colonization, racism, and privilege. These themes are explored in more depth, followed by articulation of the implications of these conditions for Indigenous health curricula, alignment of the institutional curriculum, advocacy for Indigenous health, infrastructure, and resourcing. We have derived key principles for action by medical education institutions from this analysis, which conclude the consensus statement.

Colonization

We recognize colonization as a fundamental process underpinning the establishment and maintenance of health inequities between Indigenous and non-Indigenous peoples. Colonization is an ongoing philosophy of domination that involves dehumanizing of Indigenous peoples, underpinned by an ethnocentric world view.^{51,52} In settler-colonial societies such as Australia, Canada, Aotearoa/New Zealand, and the United States of America, historical and contemporary colonial processes continue to shape the health experiences and outcomes of Indigenous peoples.^{19,53–55}

Medical education has historically been complicit in furthering the goals of colonization and perpetuating inequitable structures, processes, and outcomes.^{56,57} As a first step, institutions need to acknowledge their historical and contemporary role in the colonial project, including acceptance of evidence that health professionals and health systems contribute to the maintenance of health inequities.¹⁶

Institutions must then engage in a decolonization process, not just with regard to the Indigenous health curriculum but also in relation to systems, structures, policies, and practices across the entire institution.³² Decolonization is about dismantling colonialism as the hegemonic basis of society's values, practices, and institutions.⁵⁸ It is a tool for reclaiming Indigenous ways of

knowing, doing, and being, and for Indigenous peoples to reassert self-determination over our futures.⁵⁹

Decolonization should go hand in hand with a process of “indigenizing” medical education, creating a space where Indigenous knowledges and ways of being coexist with Western worldviews. This requires partnerships with Indigenous communities, explicit recognition of the value of Indigenous epistemologies and knowledges, and a commitment to embracing Indigenous ways of working.⁶⁰⁻⁶²

It is important that commitment to Indigenous health is formalized as part of institutions’ core business, with policies, plans, and processes developed in partnership with Indigenous communities.²³ The imperative of advancing Indigenous health and eliminating inequities should be explicit within organizational vision, mission statements, strategic priorities, policies, processes, and systems.⁶³ It must be clear how these high-level objectives are to be achieved, what resources will support this action and how outcomes will be monitored. A comprehensive Indigenous health plan should be developed based on a community engagement process and formal agreement between institutional and community leadership. The actions outlined here seek to address the exclusion of Indigenous peoples, knowledges, and worldviews from medical education, and decenter colonial norms and values that have established and perpetuate institutional racism.

Racism

Racism is a key determinant of inequitable health outcomes between Indigenous and non-Indigenous populations, acting through multiple pathways including those mediated by medical education.⁶⁴ Racism can be defined as an organized system that distributes power, resources, and opportunities unequally and inequitably across racial or ethnic groups; historically, racism has

gone hand in hand with colonization.

Racism operates through a range of mechanisms and at different levels including institutionalized, personally mediated, and internalized racism.⁶⁵ Furthermore, the unique relationship between Indigenous peoples and the state creates an environment where inequality is perpetuated and sanctioned through formal government policies.⁶⁶ That is, the legitimizing ideology of colonialism, with its inherent cultural hierarchy, implicitly codifies racism against Indigenous peoples within national laws, policies, and institutions.

Different levels of racism have different and complex implications for medical education. The pervasive nature of racism means that its effects can be felt in all health care interactions and educational settings.⁶⁷ Racism influences health professionals' practice, resulting in poorer quality and outcomes of health care for Indigenous vs non-Indigenous populations.^{28,68-73} This is clearly unacceptable and in breach of professional codes of medical practice.

Privilege

Racism intersects with colonization in complex ways; indeed, it is principally through various forms of racism that colonial structures maintain unequal power relations and reinscribe settler privilege.⁷⁰ Colonization established and maintains settler privilege via mechanisms such as enhanced access to the beneficial determinants of health, legislated dominance of colonial languages and cultural practices, and preferential access to and quality of health care. Privilege and racism are inextricably linked; however, the concept of privilege is often un-named, unquestioned, and un-examined.^{74,75}

Understanding and addressing colonization, racism, and privilege

Medical education institutions must therefore have a framework for understanding and addressing colonization, racism, and privilege at institutional and curricular levels. Such a

framework must incorporate effective anti-racism education used in other disciplines, adapted to the particular medical educational context and applied ubiquitously throughout training.

Learning contexts in which racism tends to be reinforced (e.g., during clinical training) need focused attention through direct action within those environments and indirect action such as debriefing and reflective learning activities for students. Educators, with support from institutions, must be committed to understanding the ongoing effects of colonization through racism and privilege, and to engage in personal anti-racism work. They must also commit to facilitating students' learning with a view to eliminating racism and privilege in medical education and practice. This requires an understanding of white fragility (defined by DiAngelo as "a state in which even a minimum amount of racial stress becomes intolerable, triggering a range of defensive moves")⁷⁶ and related contexts, and an ability and commitment to address responses that reflect this positioning.

It is important to note that the ways in which colonization, racism and privilege manifest in medical education do not require intent on the part of medical educators or institutional leadership. In countries built on settler colonialism these processes are embedded in the norms, values, systems, and structures of society and may therefore be invisible, at least to those upon whom they confer privilege. In medical education there has traditionally been little emphasis on critically examining the culture of medicine or understanding how the profession and its practices may perpetuate systems of oppression.^{77,78} It is therefore possible for educators and institutions to be complicit in enacting systems of colonization, racism and privilege without deliberate and mindful application of such frameworks. However, given the growth of the literature in this area, we consider that well-informed, reflective medical educators, leaders and administrators should not be complicit in such repetition.

The Indigenous health curriculum

Indigenous health must be positioned as a formal discipline in medical education, with an explicit curriculum that is constructively aligned⁷⁹ to ensure graduates achieve the competencies required to be effective in improving Indigenous health. Achievement of Indigenous health educational outcomes must be required of all students as an integral part of overall medical professionalism. A robust system of assessment is essential to ensure that progress through and completion of programs is contingent on learners meeting specified Indigenous health learning outcomes.⁸⁰

The Indigenous health curriculum in medical education must be rigorously developed, grounded in both western and Indigenous paradigms, and informed by the needs and perspectives of Indigenous communities, learners, and each institution. Such an approach necessarily involves a locally contextualized curriculum and participation of stakeholders including Indigenous community and Indigenous health professionals in its design and delivery.^{80,81}

Effective Indigenous health education continues to evolve, and is framed by core concepts including cultural competence,⁸² cultural safety,⁸³ and structural competency.⁵⁷ Approaches to Indigenous health curricula also include patient-centered care that needs to be applied to the particular social, cultural, historical, and political realities of Indigenous patients and within the contexts of colonization and social exclusion.⁴⁶ These concepts and contextual factors underpin a particular set of pedagogical approaches that integrate all aspects of medical education including population health and clinical care domains.

This unique and complex framing positions Indigenous health as a distinct discipline within medical education. It should be seen as complementary to, rather than competing or overlapping with, other domains of learning such as cultural safety. The Indigenous health curriculum can

support learners' cultural safety development but should not be considered a substitute for a dedicated formal curriculum in cultural safety.²⁴

As a general principle, Indigenous health curricula should focus on the health professional, health systems, and structural determinants of health rather than on essentialist understandings of the cultural "other."⁴¹ They should critique prevalent understandings of "culture" in order to examine how societal systems and structures impose barriers for Indigenous peoples and drive health inequities.

It is important that Indigenous health curricula use appropriate, effective, and innovative methods for engaging learners in transformative learning.⁸⁴ The approaches used and curricular resources must consider the context within which learning about Indigenous health occurs, such as the effect of a dominant biomedical paradigm that can delegitimize other forms of knowledge and learning. In addition, Indigenous health curricula need to be sufficiently adaptable and differentiated to be able to meet the particular needs of both Indigenous and non-Indigenous learners.

Alignment of the institutional curriculum

While an explicit, high quality Indigenous health curriculum is necessary, its existence is not sufficient to ensure that learners achieve the requisite outcomes. Learners are influenced by all aspects of the educational environment,⁸⁵ and it is clear that informal and hidden curricula relating to Indigenous health are often at odds with the formal, explicit curriculum.⁴¹ Approaches such as the Critical Reflection Tool provide a structured framework for institutions to reflect on, review, and reform institutional learning environments to improve the alignment between these different curricula.⁸⁶⁻⁸⁸ Implicit in this principle is a requirement for educators to be appropriately knowledgeable about and skilled for their role in Indigenous health teaching and/or

assessment, which has significant implications for professional development.⁸⁹

Advocacy for Indigenous health

Health professionals are part of larger systems that create barriers to equitable health care and health outcomes, so it is a responsibility of educational institutions to facilitate empowerment and advocacy to change such systems, not just individual learners' knowledge, attitudes, and skills.⁹⁰⁻⁹² Medical practitioners also have a professional obligation to act as agents of change to support Indigenous health development. Medical education institutions should therefore be actively involved in advocacy for Indigenous rights and Indigenous health development, including efforts to dismantle systems of racism and privilege. This includes taking a leadership role in public policy and advocacy, as well as ensuring that these competencies are integral components of educational curricula.

Infrastructure and resourcing

Medical education institutions must develop infrastructure and allocate resources in ways that support the comprehensive institutional approach to Indigenous health outlined above. This requires investment in appropriate Indigenous health learning experiences for students, Indigenous staff recruitment, support of Indigenous community partners to meaningfully engage with the curriculum (and students), and ongoing curriculum reinvigoration. Such investment must recognize Indigenous health not only as a developing discipline but also as a fundamental strategy for achieving institutional social justice obligations. Institutions must ensure that they have meaningful processes and policies to support the parallel development of Indigenous faculty. Indigenous people must occupy leadership positions and have the capacity to influence the institution and educational curriculum. Indigenous leadership must include participation at all levels of administration (including at the director or dean level) and on

governance boards. Below we list principles that we believe are critical for medical education institutions to address barriers to advancing Indigenous health and to play their part in achieving health equity.

Key Principles

1. Colonization is a fundamental determinant of Indigenous health. Medical education institutions must acknowledge their historical and contemporary role in the colonial project and engage in an institutional decolonization process.
2. Medical education institutions must have a framework for understanding and addressing racism and privilege at institutional and curricular levels.
3. Medical education programs must have an explicit, rigorously developed Indigenous health curriculum, with rigor defined in terms of both Western and Indigenous standards and contextualized to local needs.
4. Institutional curricula must ensure that Indigenous health concepts and principles are reflected in all institutional policies and practices and are reinforced in all educational environments.
5. Advocacy for Indigenous rights and Indigenous health development is an important responsibility for medical education institutions and health professionals, including advocacy in relation to health systems and broader societal determinants of Indigenous health.
6. Institutions must invest in infrastructure, Indigenous leadership, and resourcing for Indigenous health development.

Concluding Remarks

The issues related to improvement of Indigenous health and elimination of disparities in medical education have global resonance, yet the significant developments in this field to date have occurred in the absence of a clearly articulated global conceptual framework. This international consensus statement highlights the importance of addressing the problem at this level, and outlines the challenges that medical educators share and principles for action.

The principles outlined in this consensus statement provide a framework that can support medical education institutions to meet their obligations in relation to Indigenous health. They include addressing colonization, racism, and privilege at curricular and institutional levels; developing explicit, comprehensive Indigenous health curricula that are consistently reinforced across all educational settings; engaging in advocacy for health system and broader societal reform; and supporting these activities with appropriate investment in Indigenous health capacity. It is important that these principles are applied in reflexive, locally determined ways, based on community engagement and using institutional critical reflection tools. Meeting these obligations will require decolonization of medical education and the medical workforce, as well as working to address health system and broader societal factors that create and maintain health inequities.

References

1. Anderson I, Crengle S, Kamaka ML, Chen TH, Palafox N, Jackson-Pulver L. Indigenous health in Australia, New Zealand, and the Pacific. *Lancet*. 2006;367:1775–1785.
2. Gracey M, King M. Indigenous health part 1: Determinants and disease patterns. *Lancet*. 2009;374:65–75.
3. King M, Smith A, Gracey M. Indigenous health part 2: The underlying causes of the health gap. *Lancet*. 2009;374:76–85.
4. Anderson I, Robson B, Connolly M, et al. Indigenous and tribal peoples' health (The Lancet-Lowitja Institute Global Collaboration): a population study. *Lancet*. 2016;388:131–157.
5. Whitehead M. The concepts and principles of equity and health. *Health Promot Int*. 1991;6:217–228.
6. Jones CM. The moral problem of health disparities. *Am J Public Health*. 2010;100(1 Suppl):S47–S51.
7. Reid P, Robson B. Understanding health inequities. In: Robson B, Harris R, eds. *Hauora: Māori Standards of Health IV. A Study of the Years 2000–2005*. Wellington, New Zealand: Te Rōpū Rangahau Hauora a Eru Pōmare; 2007.
8. Human Rights and Equal Opportunity Commission, Australia. Aboriginal and Torres Strait Islander Commission, Calma T. *Achieving Aboriginal and Torres Strait Islander Health Equality Within a Generation: A Human Rights Based Approach*. Human Rights and Equal Opportunity Commission: Sydney, Australia; 2007.
9. World Health Organization. *Geneva Declaration on the health and survival of Indigenous peoples*. Report of the international consultation on the health of Indigenous persons, Geneva, 23–26 November 1999. Geneva, Switzerland: World Health Organization, 2000.

10. United Nations. Who are Indigenous Peoples? United Nations Permanent Forum on Indigenous Issues, 5th Session, Fact Sheet 1. New York: United Nations Permanent Forum on Indigenous Issues, 2015.
11. Betancourt JR, Maina AW. The Institute of Medicine report “Unequal Treatment”: implications for academic health centers. *Mt Sinai J Med.* 2004;71:314–321.
12. Sanson-Fisher RW, Williams N, Outram S. Health inequities: The need for action by schools of medicine. *Med Teach.* 2008;30:389–394.
13. Functions and Structure of a Medical School: Standards for Accreditation of Medical Education Programs Leading to the M.D. Degree. Washington, DC: Liaison Committee on Medical Education, 2018. <http://lcme.org/publications/>. Accessed September 8, 2018.
14. American Board of Internal Medicine Foundation, American College of Physicians – American Society of Internal Medicine Foundation, and European Federation of Internal Medicine. Medical Professionalism in the New Millennium: A Physician Charter. *Ann Intern Med.* 2002;136:243–246.
15. Jones R, Pitama S, Huria T, et al. Medical education to improve Māori health. *N Z Med J.* 2010;123:113–122.
16. Smedley BD. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care.* Washington, DC: National Academies Press; 2002.
17. United Nations Committee on Indigenous Health. *The Geneva Declaration on the Health and Survival of Indigenous Peoples.* New York, NY: United Nations Permanent Forum on Indigenous Issues; 2002.
18. Johnston E. Chapter 31: Towards better health. In: *Royal Commission into Aboriginal Deaths in Custody, National Report, Vol 4.* Canberra, Australia: Australian Government

- Publishing Service, 1991.
19. Truth and Reconciliation Commission of Canada. Calls to Action. 2015.
http://www.trc.ca/websites/trcinstitution/File/2015/Findings/Calls_to_Action_English2.pdf. Accessed September 8, 2018.
 20. 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;199:65–68.
 21. 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;27:314–328.
 22. Lewis M, Prunuske A. The development of an indigenous health curriculum for medical students. *Acad Med*. 2017;92:641–648.
 23. Jacklin K, Strasser R, Peltier I. From the community to the classroom: The undergraduate Aboriginal health curriculum at the Northern Ontario School of Medicine. *Can J Rural Med*. 2014;19:143–150.
 24. Phillips G. CDAMS Indigenous Health Curriculum Framework. Melbourne, Australia: VicHealth Koori Health Research and Community Development Unit, The University of Melbourne; 2004.
 25. Indigenous Physicians Association of Canada–Association of Faculties of Medicine. Aboriginal Health Curriculum Subcommittee. First Nations, Inuit, Métis Health Core Competencies: A Curriculum Framework for Undergraduate Medical Education. 2008.
<https://www.uleth.ca/dspace/bitstream/handle/10133/644/IPAC-AFMC%20Core%20Competencies%20->

- %20Final%20English.pdf?sequence=1&isAllowed=y. Accessed September 16, 2018.
26. Wilson D, de la Ronde S, Brascoupé S, et al. Health professionals working with First Nations, Inuit, and Métis consensus guideline. *J Obstet Gynaecol Can.* 2013;35:550–553.
 27. Traynor R, Eva KW. The evolving field of medical education research. *Biochem Mol Biol Educ.* 2010;38:211–215.
 28. Paul D, Hill S, Ewen S. Revealing the (in)competency of “cultural competency” in medical education. *AlterNative: Int J Indigenous Peoples.* 2012;8:318–328.
 29. Ewen SC, Paul DJ, Bloom GL. Do indigenous health curricula in health science education reduce disparities in health care outcomes? *Med J Aust.* 2012;197:50–52.
 30. Medical School Accreditation Committee. Standards for Assessment and Accreditation of Primary Medical Programs by the Australian Medical Council 2012.
http://www.amc.org.au/files/d0ffceccda9608cf49c66c93a79a4ad549638bea0_original.pdf.
Accessed September 8, 2018.
 31. Jones R. Te Ara: A pathway to excellence in indigenous health teaching and learning. *Focus on Health Professional Education.* 2011;13:23–34.
 32. Curtis E, Reid P, Jones R. Decolonising the academy: The process of re-presenting indigenous health in tertiary teaching and learning. In: Cram F, Phillips H, Sauni P, Tuagalu C, eds. *Māori and Pasifika Higher Education Horizons (Diversity in Higher Education, Volume 15)*. Bingley, UK: Emerald Group; 2014.
 33. Arkle M, Deschner M, Giroux R, et al. Indigenous Peoples and Health in Canadian Medical Education: CFMS Position Paper. Ottawa, Canada: Canadian Federation of Medical Students; 2015.
 34. University of Otago. *Educating for Equity*.

- <http://www.otago.ac.nz/wellington/departments/publichealth/research/erupomare/research/otago019492.html>. Accessed September 8, 2018.
35. Murphy MK, Black NA, Lamping DL, et al. Consensus development methods, and their use in clinical guideline development. *Health Technol Assessment*. 1998;2:1–88.
 36. Jones J, Hunter D. Qualitative research: consensus methods for medical and health services research. *BMJ*. 1995;311:376–380.
 37. Council of Europe. Developing a methodology for drawing up guidelines on best medical practice. Recommendation Rec(2001)13 and explanatory memorandum. Strasbourg, France: Council of Europe Publishing; 2002.
 38. Glaser EM. Using behavioral science strategies for defining the state-of-the-art. *J Appl Behav Sci*. 1980;16:79–92.
 39. Kitzinger J. Qualitative research: Introducing focus groups. *BMJ*. 1995;311:299–302.
 40. Paul D, Jones R, Ewen S. Indigenous health education: Closing the gap or just making us feel better? Paper presented at Australian and New Zealand Association for Health Professions Education Conference; Alice Springs, Australia; June 28, 2011.
 41. Paul D, Ewen SC, Jones R. Cultural competence in medical education: Aligning the formal, informal and hidden curricula. *Adv Health Sci Educ Theory Pract*. 2014;19:751–758.
 42. Ly A, Crowshoe L. “Stereotypes are reality”: addressing stereotyping in Canadian Aboriginal medical education. *Med Educ*. 2015;49:612–622.
 43. Jones R, Ewen S, Pitama S, Paul D. Programmatic Assessment of Indigenous Health in Medical Education. Pre-conference workshop at: Ottawa Conference; Perth, Australia; March 19, 2016.
 44. Harris R, Cormack D, Curtis E, Jones R, Stanley J, Lacey C. Development and testing of

- study tools and methods to examine ethnic bias and clinical decision-making among medical students in New Zealand: The Bias and Decision-Making in Medicine (BDMM) study. *BMC Med Educ.* 2016;16:173.
45. Jones R, Crowshoe L, Ewen S, on behalf of the Educating for Equity international team. Improving Indigenous health through medical education: The Educating for Equity project. Symposium presented at: Pacific Region Indigenous Doctors Congress; Auckland, New Zealand; November 30, 2016.
46. Jacklin KM, Henderson RI, Green ME, Walker LM, Calam B, Crowshoe LJ. Health care experiences of Indigenous people living with type 2 diabetes in Canada. *CMAJ.* 2017;189:E106–E112.
47. Hill S, Ewen S, Paul D, Wilkin A. Can my mechanic fix blue cars? A discussion of health clinician’s interactions with Aboriginal Australian clients. *Aust J Rural Health.* 2017;25:189–192.
48. Crowshoe L, Han H, Calam B, et al. Impacts of Educating for Equity’s workshop on addressing social barriers of type 2 diabetes with indigenous patients. *J Contin Educ Health Prof.* 2018;38:49–51.
49. Crowshoe L, Henderson R, Jacklin K, Calam B, Walker L, Green M. Educating for Equity Care Framework: Addressing Social Barriers of Type 2 Diabetes with Indigenous Patient. *Can Fam Physician.* [in press].
50. United Nations. State of the World’s Indigenous Peoples. New York: United Nations Department of Economic and Social Affairs, Division for Social Policy and Development, Secretariat of the Permanent Forum on Indigenous Issues; 2009. ST/ESA/328.

51. Wolfe P. *Settler Colonialism and the Transformation of Anthropology: The Politics and Poetics of an Ethnographic Event*. London: Cassell; 1999.
52. Churchill W. *From a Native Son: Selected Essays on Indigenism, 1985–1995*. Boston: South End Press; 1996.
53. Robson B, Harris R, eds. *Hauora: Māori Standards of Health IV. A Study of the Years 2000–2005*. Wellington, New Zealand: Te Rōpū Rangahau Hauora a Eru Pōmare; 2007.
54. Sherwood J. Colonization—It’s bad for your health: The context of Aboriginal health. *Contemp Nurse*. 2013;46:28–40.
55. Kaholokula JK, Nacapoy AH, Dang KL. Social justice as a public health imperative for Kanaka Maoli. *AlterNative: Int J Indigenous Peoples*. 2009;5:117–137.
56. Leyland A, Smylie J, Cole M, et al. Indigenous Health Working Group. Health and health care implications of systemic racism on indigenous peoples in Canada. Mississauga, ON: College of Family Physicians of Canada; 2016.
57. Metzl JM, Hansen H. Structural competency: Theorizing a new medical engagement with stigma and inequality. *Soc Sci Med*. 2014;103:126–133.
58. McCaslin WD, Breton DC. Justice as healing: Going outside the colonizer’s cage. In: Denzin N, Lincoln Y, Smith L, eds. *Handbook of Critical and Indigenous Methodologies*. Los Angeles: Sage; 2008.
59. Smith LT. *Decolonizing Methodologies: Research and Indigenous Peoples*, 2nd ed. London: Zed Books; 2012.
60. Wilson S. *Research is ceremony: Indigenous research methods*. Nova Scotia, Canada: Fernwood Publishing; 2008.
61. Behrendt L, Larkin S, Griew R, Kelly P. *Review of Higher Education Access and Outcomes*

- for Aboriginal and Torres Strait Islander People: Final Report. Canberra, Australia: Australian Government, 2012.
62. Curtis E. Indigenous positioning in health research: The importance of Kaupapa Māori theory informed practice. *AlterNative: Int J Indigenous Peoples*. 2016;12:396.
63. Curtis E, Reid P. Indigenous health workforce development: Challenges and successes of the Vision 20:20 program. *ANZ J Surg*. 2013;83:49–54.
64. Paradies Y. Colonization, racism and indigenous health. *Journal of Population Research*. 2016:1–14.
65. Jones CP. Levels of racism: A theoretic framework and a gardener's tale. *Am J Public Health*. 2000;90:1212–1215.
66. Davis M. Closing the gap in indigenous disadvantage: A trajectory of indigenous inequality in Australia. *Georgetown Journal of International Affairs*. 2015;16:34–44.
67. Curtis E, Wikaire E, Kool B, et al. What helps and hinders indigenous student success in higher education health programmes: A qualitative study using the Critical Incident Technique. *Higher Education Research & Development*. 2014;34:486–500.
68. Curtis E, Harwood M, Riddell T, et al. Access and society as determinants of ischaemic heart disease in indigenous populations. *Heart Lung Circ*. 2010;19:316–324.
69. Harris R, Cormack D, Tobias M, et al. The pervasive effects of racism: Experiences of racial discrimination in New Zealand over time and associations with multiple health domains. *Soc Sci Med*. 2012;74:408–415.
70. Paradies Y, Truong M, Priest N. A systematic review of the extent and measurement of healthcare provider racism. *J Gen Intern Med*. 2014;29:364–387.
71. Walls ML, Gonzalez J, Gladney T, Onello E. Unconscious biases: Racial microaggressions in

- American Indian health care. *J Am Board Fam Med.* 2015;28:231–239.
72. Kaholokula JK, Grandinetti A, Keller S, Nacapoy AH, Kingi TK, Mau MK. Association between perceived racism and physiological stress indices in Native Hawaiians. *J Behav Med.* 2012;35:27–37.
73. Kaholokula JK, Antonio MC, Ing CK, et al. The effects of perceived racism on psychological distress mediated by venting and disengagement coping in Native Hawaiians. *BMC Psychol.* 2017;5:2.
74. Borell B, Gregory A, McCreanor T, Jensen V. “It’s hard at the top but it’s a whole lot easier than being at the bottom”: The role of privilege in understanding disparities in Aotearoa/New Zealand. *Race/Ethnicity: Multidisciplinary Global Contexts.* 2009;3:29–50.
75. Bond C. Keynote Presentation: Race is real and so is racism: Making the case for teaching race in Indigenous health curriculum. In: *Leaders in Indigenous Medical Education Network 2017, LIME Good Practice Case Studies Vol. 4.* Melbourne, Australia: The University of Melbourne; 2017.
76. Di Angelo R. White fragility. *International Journal of Critical Pedagogy.* 2011;3:54–70.
77. Taylor JS. Confronting “culture” in medicine's “culture of no culture.” *Acad Med.* 2003;78:555–559.
78. Good M-JD, James C, Good BJ, Becker AE. The culture of medicine and racial, ethnic, and class disparities in healthcare. In: Smedley BD, Stith AY, Nelson AR, eds. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare.* Washington, DC: National Academies Press, 2003.
79. Biggs JB, Tang CS. *Teaching for Quality Learning at university: What the Student Does.* 4th

- ed. Maidenhead, United Kingdom: McGraw-Hill/Society for Research into Higher Education/Open University Press; 2011.
80. Pitama S. “As natural as learning pathology”: The design, implementation and impact of indigenous health curricula within medical schools. [PhD thesis]. Dunedin, New Zealand: University of Otago; 2013.
81. Kamaka M, Wong V, Carpenter D, Kaulukukui M, Maskarinec G. Kakou: Collaborative cultural competency. In Mesiona Lee WK, Look MA, eds. Ho'i Hou Ka Maui Ola: Pathways to Native Hawaiian Health. Honolulu: University of Hawai'i Press; 2017.
82. Betancourt JR, Green AR, Carrillo JE, Ananeh-Firempong O. Defining cultural competence: A practical framework for addressing racial/ethnic disparities in health and health care. *Public Health Rep.* 2003;118:293–302.
83. Ramsden I. Cultural safety and nursing education in Aotearoa and Te Waipounamu. [PhD thesis]. Wellington, New Zealand: Victoria University; 2002.
84. Kripalani S, Bussey-Jones J, Katz MG, Genao I. A prescription for cultural competence in medical education. *J Gen Intern Med.* 2006;21:1116–1120.
85. Murray-Garcia JL, Garcia JA. The institutional context of multicultural education: What is your institutional curriculum? *Acad Med.* 2008;83:646–652.
86. Ewen S, Mazel O, Knoche D. Exposing the hidden curriculum influencing medical education on the health of indigenous people in Australia and New Zealand: The role of the critical reflection tool. *Acad Med.* 2012;87:200–205.

87. Mazel O, Paul D, Ewen S, Pitama S. Trialling the Leaders in Indigenous Medical Education (LIME) accreditation tools. Paper presented at: International conference on Community Engaged Medical Education in the North 2016 conference; June 22–25, 2016; Sault Ste. Marie, Ontario, Canada.
88. Indigenous Physicians Association of Canada and Association of Faculties of Medicine of Canada. First Nations, Inuit, Metis Health Core Competencies: Critical Reflection Tool. Indigenous Physicians Association of Canada and Association of Faculties of Medicine of Canada; 2010. https://www.afmc.ca/pdf/IPAC-AFMC%20FN-I-M%20Health%20Critical%20Reflection%20Tool_Eng.pdf. Accessed September 13, 2018.
89. Jones RG, Henning MA, Pinnock R, Shulruf B, Hawken SJ. Medical students' and clinical teachers' perceptions of Māori health teaching. *N Z Med J.* 2013;126:41–50.
90. Boelen C, Heck JE. Defining and measuring the social accountability of medical schools. Geneva, Switzerland: World Health Organization; 1995.
91. Health Canada. Social accountability: A vision for Canadian Medical Schools. Ottawa, Ontario, Canada: Health Canada; 2001.
92. Larkins SL, Preston R, Matte MC, et al. Measuring social accountability in health professional education: Development and international pilot testing of an evaluation framework. *Med Teach.* 2013;35:32–45.