The Global Alliance for Chronic Diseases researchers' statement on non-communicable disease research with Indigenous peoples



The Global Alliance for Chronic Diseases (GACD) is an international alliance of public funders of health research in over 70 countries. GACD supports non-communicable disease (NCD) implementation science research in low-income to middle-income countries (LMICs) and priority populations in high-income countries, such as Indigenous peoples.¹ GACD's Indigenous Population Working Group (IPWG), led by Indigenous researchers, was established to ensure Indigenous guidance, and address gaps in implementation science with Indigenous peoples.

Indigenous peoples represent a diversity of cultures, contexts, and lived experiences. They inhabit over 90 countries, constitute 6% of the global population (~370 million people), and speak 7000 languages.² According to the UN, Indigenous peoples represent approximately 15% of the world's extremely poor, with a life expectancy of up to 20 years less than non-Indigenous peoples.³ This health inequity is primarily attributable to high rates of non-communicable, chronic diseases.

Chronic diseases have a greater debilitating effect on the health and mortality of Indigenous populations because of colonisation, which impacts mental, emotional, spiritual, and physical health. Colonisation undermines the health of Indigenous peoples in many ways, including the commodification, pollution, and extraction of elements of life (eg, water, animals, and land),⁴ which maintains socioeconomic disadvantages and lifestyle risk factors such as poor nutrition, physical inactivity, smoking, and obesity.

A key criticism of Indigenous health research is the preponderance of descriptive studies and studies that highlight deficit narratives, with little research focused on the social-cultural determinants, protective factors, and health-promoting aspects of Indigenous cultures.⁵ There are also less Indigenous people with advanced university degrees and research training than non-Indigenous people. A paucity of Indigenous researchers can lead to an imbalance in collaborative research practice, where non-Indigenous researchers appear

to know better how to proceed but might not have acquired sufficient knowledge about the culture, history, and context of the people they intend to study.

The complex and ongoing influence of colonisation must be explored and addressed to overcome the disproportionately harmful effect of chronic diseases in Indigenous populations. Understanding the local needs and aspirations and the reasons for the rise in NCDs will help to fill gaps in implementation research. Enhancing the Indigenous research workforce requires supporting early-mid-career researchers and developing Indigenous principal investigators. Research must provide immediate tangible benefits to the communities being studied.

Decolonising and Indigenising research methods and practices has been helpful in enabling Indigenous peoples to improve their lives, by overcoming the failures of inherently colonial structures, policies, and practices.7 Strategies include discourses acknowledging the strengths of Indigenous communities, privileging Indigenous knowledges, and respecting Indigenous research frameworks. Community-based participatory research methods and approaches are needed to overcome many of the shortcomings of extractive Eurocentric research,8 such as integrating the principles of co-design within Indigenous worldviews. Research should be conducted with and by Indigenous peoples, not for or on Indigenous peoples. Co-design involves a partnership with the Indigenous communities who will be the endusers of the research and should take place throughout the entire research process, from generating the research question through to design, implementation, evaluation, and the dissemination of the findings.

High-quality evidence is essential to address inequities and close gaps in Indigenous peoples' health outcomes. Understanding context is crucial to improving population-health outcomes. For effective implementation and sustained programmes, locally designed and contextually adapted programmes and services must be supported with strategies rooted in Indigenous cultures and must continuously encourage

local leadership and decision making. 9.10 Collaboration involves privileging Indigenous knowledges, creating safe spaces for knowledge exchange, respecting people's self-determination, and building skills and research capacity. At the outset, attention must be paid to community concerns, cultural protocols, data sovereignty, Indigenous collaboration in the interpretation of findings, and ethical considerations congruent with cultural values. Cross-cultural rigor is crucial to building trust and avoiding harmful colonial practices.

Non-Indigenous researchers and Indigenous peoples need to develop a trusting relationship to recognise and appreciate the value of what can be learned from each other. Shared confidence depends on non-Indigenous researchers developing knowledge of Indigenous cultures, histories, and contexts and compassion for the challenges Indigenous people face. Indigenous research partners might need to increase their understanding of research, its methodologies, inherent limitations, and ethical challenges.

Ideally, decolonising research practices will involve decolonising the funding by ascertaining which institutions are eligible for funding and mapping how funding is disbursed by funders. Currently, most public funders provide a grant award to a single administering research institution (the employer of the principal investigator) with money then flowing to other participating investigators and institutions. This financial control model is tolerated among academic researchers; however, it can foster a power imbalance between the researchers and the community. Codesign, including a choice of research topic, can help investigators and methodologies ameliorate this power imbalance, but cannot fully overcome it. Research governance must include co-leadership, data ownership, sharing, intellectual property rights, and ethical considerations congruent with cultural values. Budgetary allocations among the research institutions and Indigenous communities must be clearly articulated in research proposals to promote maximum self-determination. Appropriate and equitable governance should be an important consideration in funders' decisions to support a proposal. Funding organisations must be active participants in the decolonisation of the research process.

We advocate that implementation science research with Indigenous communities apply co-design principles

to seek Indigenous perspectives and understand with colonist worldviews. conflicts Successful collaboration requires non-Indigenous researchers to develop their knowledge and understanding of Indigenous Peoples' sociocultural perspectives, to be open to alternative approaches and conceptualisations of research goals and methodologies, and to build the research capacity of Indigenous peoples. Crosscultural sensibility and rigor will improve research quality and true partnerships for the benefit of Indigenous communities. This statement advocates using decolonisation methodological frameworks that privilege Indigenous voices and ways of knowing, being, and doing. The statement also supports building Indigenous researcher capabilities to lead future GACD-funded research. The principles outlined are intentionally broad to reflect the heterogeneity of Indigenous peoples and to ensure their different sociocultural and health contexts are recognised and respected.

DPM is supported as a fellow of the Wingara Mura Leadership Program, University of Sydney and received a grant from The University of Sydney, Charles Perkins Centre Aboriginal and Torres Strait Islander Wingara Mura Leadership Academy Early to Mid-Career Research Seeding Grant; associated manuscript processing charges will be costed to these funds. LM-B received a NHMRC Australia grant to their university for salary and research projects, including Global Alliance for Chronic Diseases (GACD), and was a board member for the Australian Diabetes Society 2014–2021. GSG received consulting fees from the Australian Department of Health and NSW Health for their role on a national advisory panel review about medications for smoking cessation and clinical work in refugee health; had unpaid leadership roles for the Global Alliance for Chronic Disease and Global Implementation Society; and received grants to their institution for research into Indigenous smoking cessation from the Australian Department of Health, NHMRC, GACD and Cancer Australia and Cure Cancer Australia. AGT received grants from NHMRC Australia (grant numbers 1143155, 1171966, and 1182071) and a Medical Research Future Fund (Australian Government; grant number 2015976) while writing the grant; funds were made to their institution. JAA received a NHMRC Australia, GACD grant for the Breathe Easy, Walk Easy, Lungs for Life (BE WELL) project and grant funds used to attend annual GACD scientific meetings. KSL received NHMRC Centre of Research Excellence (application number 1117198) and Ideas grant (application number 1183744). MC received a GACD/Canadian Institute of Health Research (CIHR) grant to their institution. MA received a CIHR grant for a research programme with Indigenous communities (commercial tobacco harm reduction) and is a Pallium Canada board member. FGo-Sm received Global Alliance for Chronic Diseases-Health Research Council funding to their institution in 2017 (reference: 17/705). DM received a postgraduate scholarship from the National Health and Medical Research Council (NHMRC), Australia while preparing this manuscript; was an unpaid member of Australian Diabetes Association's Clinical Advisory Sub-Committee and the Northern Territory Maternal and Neonatal Network. These institutions had no role or influence on the content of the manuscript. All other authors declare no competing interests.

We acknowledge all members of the GACD Indigenous Population Working Group for their advice, guidance and support preparing this statement. This statement reflects the perspectives of the contributing authors of the GACD Indigenous Populations Working Group, but it does not necessarily reflect the perspective of GACD and the funding agencies.

Copyright © 2023 The Author(s). Published by Elsevier Ltd. This is an Open Access article under the CC BY 4.0 license.

*†David P Meharg, †Violet Naanyu, †Boe Rambaldini, †Marilyn J Clarke, †Cameron Lacey, †Felix Jebasingh, †Patricio Lopez-Jaramillo, †Gillian S Gould, Benjamin Aceves, Jennifer A Alison, Michael Chaiton, Jun Chen, Francisco Gonzalez-Salazar, Felicity Goodyear-Smith, Kylie G Gwynne, Kylie S Lee, Diana MacKay, Louise Maple-Brown, Brian L Mishara, Gustavo Nigenda, Anusha Ramani-Chander, Stephen G Sherwood, Nihal Thomas, Amanda G Thrift, †Michael Anderson david.meharg@sydney.edu.au

†Indigenous authors

Sydney School of Health Sciences (DPM, JAA), NHMRC Centre of Research Excellence in Indigenous Health and Alcohol (KSL), Faculty of Medicine and Health, and Poche Centre for Indigenous Health (DPM), University of Sydney, Sydney 2006, NSW, Australia; School of Arts and Social Sciences, Moi University, Eldoret, Kenya (VN); Academic Model Providing Access to Healthcare, Eldoret, Kenya (VN); Faculty of Medicine, Health and Human Sciences, Macquarie University, Sydney, NSW, Australia (BR, KGG); Faculty of Health, Southern Cross University, Coffs Harbour, NSW, Australia (MJC, GSG); Māori Indigenous Health Innovation, University of Otago, Christchurch, New Zealand (CL); Department of Endocrinology, Diabetes and Metabolism, Christian Medical College, Vellore, Tamil Nadu, India (FJ, NT); Masira Research Institute, Medical School, Universidad de Santander, Bucaramanga, Colombia (PL-J); School of Public Health, San Diego State University, San Diego, CA, USA (BA); Allied Health, Sydney Local Health District, Sydney, NSW, Australia (JAA); Waakebiness Institute for Indigenous Health (MA), Dalla Lana School of Public Health (MC), University of Toronto, Toronto, ON, Canada (MC); Clinical Research Center, Shanghai Mental Health Center, Shanghai Jiao Tong University School of Medicine, Shanghai, China (JC); Cytogenetics Department, Northeast Biomedical Research Center, Mexican Institute of Social Security, Monterrey, Mexico (FGo-Sa); Department of General Practice and Primary Health Care, University of Auckland, Auckland, New Zealand (FGo-Sm); The Edith Collins Centre, Sydney Local Health District, Sydney, NSW, Australia (KSL); National Drug Research Institute and enAble Institute, Faculty of Health Sciences, Curtin University, Perth, WA, Australia (KSL); Burnet Institute, Melbourne, VIC, Australia (KSL); Centre for Alcohol Policy Research, La Trobe University, Melbourne, VIC, Australia

(KSL); Menzies School of Health Research, Charles Darwin University, Casuarina, NT, Australia (DM, LM-B); Department of Endocrinology, Royal Darwin Hospital, Tiwi, NT, Australia (DM, LM-B); Department of Psychology, Université du Québec à Montréal, Montreal, QC, Canada (BLM); National School of Nursing and Obstetrics, National Autonomous University of Mexico, Mexico City, Mexico (GN); Department of Medicine, School of Clinical Sciences at Monash Health, Monash University, Melbourne, VIC, Australia (AR-C, AGT); Fundación EkoRural, Quito, Ecuador and Wageningen University, Wageningen, Netherlands (SGS)

- 1 GACD. GACD annual report 2018–19 Global Alliance for Chronic Diseases. 2019. https://www.gacd.org/news/2019-04-15-gacd-annual-report-2018-19 (accessed Jan 10, 2021).
- 2 UN. State of the world's Indigenous peoples. 2009. https://www.un.org/esa/socdev/unpfii/documents/SOWIP/en/SOWIP_web.pdf (accessed lan 10, 2021).
- 3 World Bank. Indigenous peoples 2019. 2020. https://www.worldbank.org/ en/topic/indigenouspeoples (accessed Jan 10, 2021).
- 4 King M, Smith A, Gracey M. Indigenous health part 2: the underlying causes of the health gap. Lancet 2009; 374: 76–85.
- 5 Bainbridge R, Tsey K, McCalman J, et al. No one's discussing the elephant in the room: contemplating questions of research impact and benefit in Aboriginal and Torres Strait Islander Australian health research. BMC Public Health 2015; 15: 696.
- 6 Ewen S, Ryan T, Platania-Phung C. Further strengthening research capabilities: a review and analysis of the Aboriginal and Torres Strait Islander health researcher workforce. 2019. https://www.lowitja.org.au/ page/services/resources/health-services-and-workforce/workforce/Healthresearcher-workforce-review (accessed Jan 10, 2021).
- 7 Smith LT. Decolonizing methodologies: research and Indigenous peoples. London: Zed Books, 2021.
- Wallerstein N, Duran B. Community-based participatory research contributions to intervention research: the intersection of science and practice to improve health equity. Am J Pub Health 2010; 100 (suppl 1): S40-46.
- 9 McCalman J, Bainbridge R, Percival N, Tsey K. The effectiveness of implementation in Indigenous Australian healthcare: an overview of literature reviews. Int J Equity Health 2016; 15: 47.
- 10 Huria T, Palmer SC, Pitama S, et al. Consolidated criteria for strengthening reporting of health research involving indigenous peoples: the CONSIDER statement. BMC Med Res Methodol 2019; 19: 173.