# **BMJ Open** Understanding surgical disease and care for Māori in Aotearoa: protocol for a scoping review

Jamie-Lee Rahiri <sup>1</sup> Jason Tuhoe,<sup>2</sup> Matire Harwood,<sup>3</sup> Jonathan Koea<sup>1</sup>

# ABSTRACT

**To cite:** Rahiri J-L, Tuhoe J, Harwood M, *et al.* Understanding surgical disease and care for Māori in Aotearoa: protocol for a scoping review. *BMJ Open* 2022;**12**:e058784. doi:10.1136/ bmjopen-2021-058784

Prepublication history and additional supplemental material for this paper are available online. To view these files, please visit the journal online (http://dx.doi.org/10.1136/ bmjopen-2021-058784).

Received 29 October 2021 Accepted 23 February 2022

#### Check for updates

© Author(s) (or their employer(s)) 2022. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

<sup>1</sup>Department of Surgery, Waitemata District Health Board, Takapuna, New Zealand <sup>2</sup>Department of General Practice, Royal New Zealand College of General Practitioners, Auckland, New Zealand <sup>3</sup>General Practice and Primary Health Care, University of Auckland, Auckland, New Zealand

#### Correspondence to Dr Jamie-Lee Rahiri; jlrahiri@gmail.com

Introduction Māori continue to experience inequitable healthcare and health outcomes compared with other New Zealanders. A narrative review conducted in 2016 described disparities in access to and through the surgical care pathway for Māori from a limited pool of small retrospective cohort studies. This review only targeted studies that specifically investigated surgical care for Māori; however, many other studies have performed subanalyses for Māori as part of bigger ethnographic epidemiological studies and Indigenous health has become more topical in Australasia since this review was conducted. Health disparities and inequities in surgical care for Māori are still not well understood. This scoping review aims to report the nature and extent of disparities in surgical disease and care for Māori.

Methods and analysis A scoping review will be performed in accordance with the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews Checklist. This study will be informed by Kaupapa Maori research methodology. Electronic searches of PubMed, MEDLINE, Embase and Cumulative Index to Nursing and Allied Health Literature Plus will be performed between 19 February and 19 March 2022. Two authors will independently identify and retrieve relevant texts in an iterative manner and examine how responsive each of the included studies are to Maori using the recently described Maori framework-a framework designed to guide researcher responsiveness to Maori. Ethics and dissemination Ethical approval has not been sought as our review will only include published and publicly accessible data. We will publish the review in an open access peer-reviewed surgical journal. This protocol has been registered in Open Science Framework (10.17605/0SF.IO/NP4H3).

# **INTRODUCTION**

Māori health is characterised by systematic inequities in health outcomes, exposure to the socioeconomic determinants of health, access to and through the health system and inadequate representation within the health workforce.<sup>1</sup> These longstanding inequities continue to persist due to complex factors that interweave at the patient, healthcare provider and structural levels and have accumulated over time due to historical and contemporary disadvantages of colonisation.<sup>1 2</sup> The right to

# Strengths and limitations of this study

- A scoping review using Kaupapa Māori research methodology will be performed.
- To the best of the authors' knowledge, this is the first scoping review to provide an extensive overview of surgical disease and care for Māori.
- A limitation of this study is that the findings for Māori in New Zealand may not be generalisable to other Indigenous populations, although we would expect there would be some relevance.

health is inclusive of healthcare and the determinants of health and is ratified in many legally binding national and international human rights covenants.<sup>3 4</sup> Māori health inequities are unacceptable and are amenable to social policy and government intervention.<sup>15</sup> Equity is an integral component of healthcare policy and must be present to ensure quality care for all patients.<sup>6</sup> Addressing Māori health inequities is challenging due to the many factors that create and sustain them. However, their continued existence breaches basic human rights and rights afforded to Māori as tangata whenua.<sup>478</sup> Eradicating health inequities can occur only by addressing any infringements of rights and the unequal distribution of the determinants of health.

In 2015, the Royal Australasian College of Surgeons (RACS) established an Indigenous Health Committee which has since proposed two Māori health action plans to address Māori inequities in surgery, improve the surgical workforce development, support quality research and develop a culturally safe profession.9 In addition to this, RACS has implemented cultural safety and competence as a 10th core competence. The aspiration is that if surgeons and surgical trainees undergo cultural safety training, this may alleviate systemic racism and other forms of discrimination in surgery.<sup>10</sup> In the most recent Māori health action plan, six priority areas have been proposed including Rangahau Māori

BMJ

(research and development) which describes 'using Kaupapa Māori methodology to undertake research that is beneficial for Māori and increases understanding of Te Ao Māori and mātauranga Māori'.<sup>11</sup> Currently, the surgical workforce is not fit for purpose to achieve health equity for Māori. Implementing policies that are responsive to Māori have clearly begun to be established in RACS so that a foundation can be been laid to action the goals of the proposed Māori health strategies.

Surgery comprises several different specialties. While RACS is the governing organisation responsible for training surgeons and maintaining surgical standards in Australasia, surgical training in Aotearoa is directly overseen by separate national surgical training bodies. Despite this, the majority of surgical specialties lack comprehensive reports on the state of Māori health in their care. Only one review has been performed outlining disparities in surgical care for Māori which was limited by a lack of robust studies and limited to retrospective audits.<sup>12</sup> It is vital that we outline the gaps in access to and through surgical care pathways as well as understand the prevalence of surgical disease for Māori. Recent research has shown the Maori experience higher rates of perioperative mortality over a range of operations.<sup>13</sup> While this is not surprising, the lack of Māori led research in this space is concerning. Moreover, a concerning feature of recent research describing ethnic disparities in surgical disease is the dominance of non-Māori conducting studies on Māori without Māori and therefore producing work that is not responsive to Māori. The aim of this scoping review is to summarise the nature and extent of evidence in Aotearoa on the status of Māori in surgical disease and care and how responsive research really is to Māori using a framework designed by Māori surgeons and Māori health academics.

# **METHODS AND ANALYSIS**

A scoping review will be conducted in accordance with the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRIS-MA-ScR) Checklist.<sup>14</sup> A scoping review was deemed more appropriate than a systematic review, as we anticipate, heterogeneity in the available evidence.

#### Methodology

This study will be informed by Kaupapa Māori research (KMR) methodology. KMR critiques the social order and its impact on Māori health and well-being.<sup>15</sup> It is politically geared to enact social transformation through Māori autonomy and self-development.<sup>16</sup> In addition, KMR seeks to monitor and critique health systems while rejecting deficit views that mark Māori as inherently inferior or naturally prone to health adversity.<sup>17</sup> KMR can be used in both quantitative and qualitative research with the primary goal of highlighting and eradicating Māori health inequities.<sup>16 I8–20</sup> This study will be led and conducted by Māori clinical academics making it 'by Māori and for Māori'.

Lastly, KMR is concerned with constantly reflecting with Māori communities and equipping them with a critically informed language so that they may articulate their ideas and aspirations in ways the system may understand and therefore support.

#### **Objectives/scoping review questions**

To achieve our aim, we will answer the following questions:

- 1. What is the nature and extent of the available evidence
- on surgical care for Māori in Aotearoa, New Zealand? 2. What is the available evidence on the incidence and prevalence of surgical disease (including surgical on-
- cological disease) for Māori in Aotearoa, New Zealand? 3. What is the available evidence on the state of perioper-
- ative care and outcomes for Māori?

# **Eligibility criteria**

Studies will be included if they report ethnic differences among patients in Aotearoa (whether disaggregated by ethnicity or not). International studies will be included if the results are reported separately for Aotearoa. Observational studies (ie, cross-sectional, case–control and consecutive case series) will be included. Research letters and grey literature, such as district health board (DHB) reports will be included, if they report data for at least one of our outcomes of interest. Editorials, perspective pieces, non-consecutive studies and articles for which full texts are not available (ie, conference abstract) will be excluded. No language or time restrictions will be applied.

# **Participants**

We will include studies of any population group in Aotearoa without age or gender restriction.

# **Outcomes**

Studies that report at least one of the following will be included:

- 1. The prevalence of surgical disease—surgical disease refers to any disease that requires surgical intervention by surgeons.
- 2. Attendance and access to public and private surgical services including outpatient clinics, acute and elective admissions to hospital.
- 3. Perioperative outcomes surgical treatment under any surgical specialty.

# **Search strategy**

An extensive electronic search of MEDLINE, Embase, PubMed and Cumulative Index to Nursing and Allied Health Literature Plus databases will be performed. Initially, a list of key search terms will be formulated in conjunction with a subject librarian at the University of Auckland. The search strategies will be tailored to each electronic database. In addition, the reference lists of all included articles will be scrutinised as well as those studies who have cited any of the final articles included in this study. We will include grey literature that reports data for at least one of our outcomes. General search terms will be

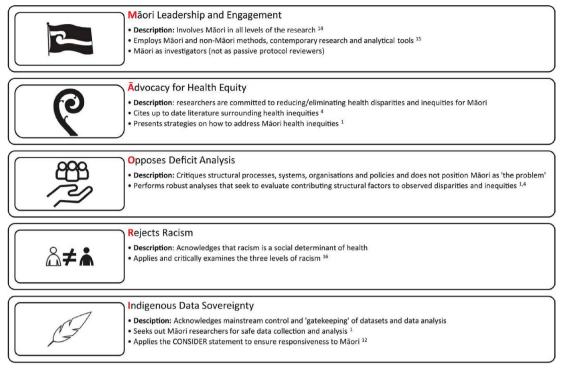


Figure 1 The Maori framework.

used to identify eligible information within each website and relevant links within documents to other sources of information will be pursued. Given the wide scope of this study, two reviewers will independently perform the search and identify eligible texts in an iterative manner followed by verification from a third reviewer (J-LR). A table of key search terms has been provided in online supplemental appendix A. Lastly, a field of key experts and stakeholders will be contacted to share our list of included studies and a request will be made to them to identify further potentially relevant studies for consideration in the review (Māori health responsiveness and Māori surgical committees).

# **Study selection**

Following the electronic database searches, relevant titles and abstracts will be retrieved and managed in Endnote V.20 (Clarivate Analytics, USA) reference management software. Two reviewers will independently screen the title and abstract of identified studies to exclude publications that do not meet the inclusion criteria. Full-text articles will be retrieved for review (via the University of Auckland Library) if the citation seems potentially relevant. Any discrepancies between the reviewers will be resolved by discussion and a third reviewer will be consulted if necessary. A PRISMA flow diagram will be completed to summarise the study selection process and a scoping review checklist has been provided in online supplemental appendix B.

# **Data charting**

An electronic data form will be developed in Microsoft Excel V.2020 for data collection. The form will be piloted on three studies and required amendments agreed by consensus between the two independent authors conducting the electronic searches. As we anticipate a broad scope of studies, data collection will be iterative with the data form undergoing changes as required. Each included study will be charted independently by two reviewers and any discrepancies between the reviewers will be resolved by discussion. Should consensus not be met, a third reviewer will be consulted if necessary. We plan to contact study authors in the case of unclear information and will make up to three attempts by email.

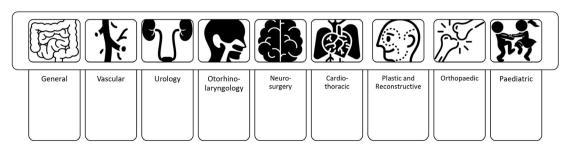


Figure 2 Surgical specialty subheadings.

# **Data variables**

- 1. Published data—author(s), year of publication, title and journal and study design.
- 2. Grey literature—author (organisation, eg, ministry of health), year of publication, source website (eg, government/non-government organisation) and type of literature (report, thesis, technical report, statistic, other).
- 3. Study characteristics: year(s) of data collection, sample size, age group of study population, demographics of study population such as gender and ethnicity, geographic area (eg, city, district) and study setting (eg, facility level).
- 4. Outcomes as outlined above. We will extract all outcomes at the aggregate level, as well as disaggregated by ethnicity, gender, DHB and area level deprivation wherever available. Source of ethnicity data collection for each included article will be recorded. Where this information is not explicitly detailed, the authors will attempt to retrieve this information directly from the lead research contact.

# Assessment of responsiveness to Maori

Under the guidance of a Māori health responsiveness committee, each included study will be assessed as to its responsiveness to Māori in accordance with the Māori framework (figure 1).<sup>21</sup> The pool of Kaupapa Māori health clinical academics is very small and so a committee was deemed important to adequately critique the included studies in assessing their responsiveness to Māori. Where more information is required, for instance, whether there is uncertainty on whether coauthors on included studies identify as Māori, attempts to contact the corresponding authors of included articles will also be made.

# **Data synthesis**

First, findings will be summarised in tables and where possible, information for each outcome will be disaggregated by cause of impairment, surgical disease, ethnicity, age, geographic region and area level deprivation where these are available. Level 2 main categories for ethnicity as per Statistics New Zealand (European, Māori, Pacific people, Asian and Middle Eastern/Latin American/ African) will be used.<sup>22</sup> Additionally, a narrative report of the findings will be described under subheadings of each surgical specialty (figure 2). Depending on the level of evidence, each specialty description will include epidemiological, access rates to surgical interventions, perioperative outcomes and Māori perspectives of surgical care. The key findings will be disseminated to our two committees to get feedback on our summary of results.

# Patient and public involvement

Patients or the public were not involved in the design of this protocol. They will not be involved in the conduct, reporting or dissemination plans of this research. However, the findings of this review will be published in a peer-reviewed scientific journal and will be compiled into a public report for the benefit of clinicians and health policy workers.

# **Ethics and dissemination**

Ethical approval has not been sought as our review will only include published and publicly accessible data. We will publish the review in an open access peer-reviewed surgical journal. This protocol has been registered in Open Science Framework (10.17605/OSF.IO/NP4H3).

# **Research team**

Our research team is comprised of Māori surgical trainees and non-trainees over a range of surgical specialties where some have considerable experience in undertaking scoping and systematic reviews (J-LR). Additionally, two research committees comprised of Māori clinicians, public health physicians and surgeons will be established to ensure adequate supervision of Kaupapa Māori processes and scientific rigour.

**Contributors** J-LR conceptualised the study and contributed to writing the protocol. JT contributed to writing the protocol and creating the search strategies. MH contributed to writing the protocol and provides Hauora Māori and Kaupapa Māori Research methodology supervision. JK contributed to writing the protocol and provides supervision in Hauora Māori and surgery.

**Funding** J-LR was supported by a Health Research Council (HRC) Research Activation Grant (21/860). The HRC did not have an active role in the development of this protocol.

Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

**Supplemental material** This content has been supplied by the author(s). It has not been vetted by BMJ Publishing Group Limited (BMJ) and may not have been peer-reviewed. Any opinions or recommendations discussed are solely those of the author(s) and are not endorsed by BMJ. BMJ disclaims all liability and responsibility arising from any reliance placed on the content. Where the content includes any translated material, BMJ does not warrant the accuracy and reliability of the translations (including but not limited to local regulations, clinical guidelines, terminology, drug names and drug dosages), and is not responsible for any error and/or omissions arising from translation and adaptation or otherwise.

**Open access** This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: http://creativecommons.org/licenses/by-nc/4.0/.

#### ORCID iD

Jamie-Lee Rahiri http://orcid.org/0000-0002-7770-057X

#### REFERENCES

- Robson B, Harris R. Hauora: Māori standards of health IV. A study of the years 2000-2005. Wellington: Te Ropū Rangahau Hauora a Eru Pomare, 2007.
- 2 Robson B. What is driving the disparities? In: Understanding health inequalities in Aotearoa New Zealand. Dunedin: Otago University Press, 2008.
- 3 United Nations. United nations Declaration on the rights of Indigenous peoples. New York: United Nations, 2008.
- 4 Wadham J, Mountfield H, Edmundson A. *Blackstone's Guide to the Human Rights Act 1998.* Oxford University Press, 2003.

# 

# Open access

- 5 Reid M-J. Good governance: the case of health equity. In: *Always speaking: the Treaty of Waitangi and public policy*. Wellington: Huia Publishers, 2011: 35–48.
- 6 Braveman P, Gruskin S. Defining equity in health. *J Epidemiol Community Health* 2003;57:254–8.
- 7 United Nations General Assembly. United nations Declaration on the rights of Indigenous peoples: resolution adopted by the general assembly, 2007. Available: http://www.refworld.org/docid/ 471355a82.html [Accessed 04 Aug 2018].
- 8 Orange C. *The Treaty of Waitangi*. Wellington: Bridget Williams Books, 2015.
- 9 Royal Australasian College of Surgeons. *Racs Māori health action plan 2016–2018*. Melbourne: The Royal Austrasian College of Surgeons, 2015.
- 10 Rashid P, Ronald M, Kong K. Cultural safety and racism. ANZ J Surg 2021;91:2829–32.
- 11 Surgeons TRACo. Te Rautaki Māori RACS Māori health strategy and action plan 2020-2023. The Royal Australasian College of Surgeons, 2020.
- 12 Rahiri J-L, Alexander Z, Harwood M, et al. Systematic review of disparities in surgical care for Maori in New Zealand. ANZ J Surg 2018;88:683–9.
- 13 Gurney J, McLeod M, Stanley J, *et al.* Disparities in post-operative mortality between Maori and non-Indigenous ethnic groups in New Zealand. *N Z Med J* 2021;134:15–28.

- 14 Tricco AC, Lillie E, Zarin W, et al. PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation. Ann Intern Med 2018;169:467–73.
- 15 Curtis E. Indigenous positioning in health research: the importance of Kaupapa Māori theory-informed practice. *AlterNative: An International Journal of Indigenous Peoples* 2016;12:396–410.
- 16 Smith G, Hoskins TK, Jones A. Interview: Kaupapa Maori: the dangers of domestication. New Zealand Journal of Educational Studies 2012;47:10 https://www.semanticscholar.org/paper/ Interview%3A-Kaupapa-Maori%3A-The-dangers-of-Smith-Hoskins/ f3434568e02cb99a1dcd160fcb6d9f8093910dc7
- 17 Curtis E, Reid P. Indigenous health workforce development: challenges and successes of the vision 20:20 programme. ANZ J Surg 2013;83:49–54.
- 18 Ahuriri-Driscoll A, Hudson M, Bishara I. Ngā Tohu O te Ora: traditional Māori healing and wellness outcomes. ESR Client Report 2012 https://researchcommons.waikato.ac.nz/handle/10289/9479
- 19 Curtis E, Wikaire E, Jiang Y, et al. Quantitative analysis of a Māori and Pacific admission process on first-year health study. BMC Med Educ 2015;15:196.
- 20 Pihama L, Smith K, Taki M. A literature review on Kaupapa Māori and Māori education pedagogy. Wellington: The International Research Institute for Māori and Indigenous Education, 2004.
- 21 Rahiri J-L, Koea J, Pitama S, et al. Protecting Indigenous Māori in surgical research: a collective stance. ANZ J Surg 2020;90:2396–9.
- 22 Statistics New Zealand. 2018 census ethnic groups dataset. Wellington, 2018.