





BMJ Open Knowledge translation in Aboriginal and Torres Strait Islander research contexts in Australia: scoping review protocol

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ABSTRACT

Introduction Knowledge translation (KT) involves bridging the gaps between research knowledge and research application or practice, by sharing this knowledge with knowledge-users. KT is increasingly being used in research with Indigenous peoples globally to address the top-down and inappropriate research approaches commonly used in Indigenous research. Employing KT in Indigenous research in Australia is an emergent field, despite Aboriginal and Torres Strait Islander peoples having conducted KT for generations. There is limited evidence which demonstrates how KT is applied in the Aboriginal/Torres Strait Islander context. Results will benefit researchers by demonstrating ways of appropriately translating research findings to knowledge-users, including Aboriginal and Torres Strait Islander communities, researchers and policy makers. The scoping review will also inform a KT definition, method and practices used in a large-scale, longitudinal cohort study of Aboriginal and Torres Strait Islander adults: the Mayi Kuwayu Study.

Methods and analysis Under guidance of an Aboriginal and Torres Strait Islander governance committee, we will conduct a scoping review on KT in Aboriginal/Torres Strait Islander research. We will follow the scoping review method outlined by the Joanna Briggs Institute. We will search the ANU SuperSearch, and grey and hard to find literature in June 2022. Abstracts and full-text articles will be screened by two independent reviewers. We will include studies that relate to KT in Aboriginal/Torres Strait Islander research, regardless of the research topic. Results will be used to inform the KT definition, method and practices that can be used in Aboriginal/Torres Strait Islander research contexts in Australia.

Ethics and dissemination The Mayi Kuwayu Study has ethics approvals from the Australian Institute of Aboriginal and Torres Strait Islander Studies, 12 Aboriginal/Torres Strait Islander organisations, and the Australian National University Human Research Ethics Committee. Results will be disseminated through peer-review publication and community workshops. Protocol registration is available online (10.17605/OSF.IO/JMFQ3).

INTRODUCTION

Background

Indigenous peoples in colonised countries have unique cultures and

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ Recent work reports on and evaluates the promising and wise knowledge translation (KT) practices in Indigenous health contexts internationally. The present study will be the first scoping review to map, report and discuss the literature on KT specifically for Aboriginal and Torres Strait Islander peoples in Australia.
- ⇒ A potential limitation of this study is that the search terms are “knowledge translation” or “knowledge exchange” or “knowledge transfer” or “knowledge mobilisation” as these are commonly used phrases in the literature. There are possibly other phrases that have been used in the literature that will not be captured in this search.
- ⇒ This scoping review is limited to KT in Aboriginal and Torres Strait Islander Australia, which is necessary as the scoping review must be specific for the cultural context of an Australian national Aboriginal and Torres Strait Islander health study.
- ⇒ This scoping review will not review the quality of the studies; it will provide new evidence on how KT is described and what types of methods are used in employing KT in Aboriginal and Torres Strait Islander Australia.

socio-environmental contexts, but share a common history of being inappropriately researched, with little to no cultural acknowledgement or respect, and limited corresponding improvements in health and well-being outcomes as a result of the research.^{1,2} Such inappropriate research ‘has neither been asked for, nor has it any relevance for the communities being studied’.³ Historically, research has been used as a way for colonisers to regulate and control Indigenous peoples, and for researchers to advance their own agendas and careers, leading to the present-day cynicism and distrust of research in many Indigenous communities.¹ The Indigenous research field, however, is shifting, with Indigenous

bodies internationally recommending participatory research as a way to move from top-down research to instead involve Indigenous peoples throughout the research process.⁴

At the core of participatory research is an equal research partnership where researchers and Indigenous peoples make research decisions together.⁵ These partnerships aim to shift the balance of research to have 'equal-opportunity' for all involved in sharing and generating knowledge.⁵ Participatory research is upheld as standard practice for Indigenous research as it aims to give Indigenous communities autonomy and agency throughout research that involves them.⁴ However, while its importance is internationally understood, the implementation of participatory research varies, and specific processes of participatory research with Indigenous peoples are still unclear.⁵

One process of participatory research is knowledge translation (KT). Our working definition of KT is that it is about bridging the gaps between research knowledge or findings, and research application or practice.^{6,7} KT in research is the practice of sharing research knowledge with knowledge-users, who are the people, communities or organisations who use knowledge gathered by research to improve health systems, outcomes, services and products.⁸ Knowledge-users may include the Indigenous communities involved in the research, academics or researchers, and policy makers. KT in research is therefore the dynamic and iterative process of how what researchers know becomes more widely known across populations.⁹

KT and participatory research both aim to cocreate knowledge through committed partnerships between knowledge-users and researchers.¹⁰ While participatory research involves partnerships with knowledge-users throughout the whole research journey, KT is just one aspect of this participatory research journey. Effective KT is embedded in the whole research journey and occurs when research knowledge is translated to people who were involved in producing the knowledge.

While KT in research is a growing field, it has been practiced in Indigenous communities for generations.¹¹ Aboriginal and Torres Strait Islander peoples are the First People of Australia, having lived on and from the land for tens of thousands of years. Aboriginal and Torres Strait Islander peoples have survived ongoing colonisation since 1788, keeping cultures, languages and customs alive and strong. Aboriginal and Torres Strait Islander peoples have always used KT to pass on knowledge about health, well-being, culture, environmental sustainability, and all aspects of life through stories, music, dance and other practices.¹¹ However, the application of KT in Indigenous research in Australia is still an emergent field, with limited evidence available on how to appropriately conduct KT with Aboriginal and Torres Strait Islander peoples in the research context in Australia. Indigenist KT models and practices can be used as one tool to address the history of

research that has been detrimental to the lives of Aboriginal and Torres Strait Islander peoples.

Rationale for the scoping review

Scoping reviews explore a defined body of literature, identify the type(s) of evidence available and summarise the evidence. This scoping review aims to map, report and discuss the available evidence on KT in Aboriginal and Torres Strait Islander research in Australia, to assist in understanding how KT can be conducted in the context of a large-scale national survey of health and well-being across Aboriginal and Torres Strait Islander communities, policy and research landscapes.

A scoping review was selected for this research because we are interested in mapping, reporting, and discussing KT concepts to provide an overview of the available evidence. Scoping reviews allow for a broader research question than other types of reviews, which is useful for emergent fields such as KT with Indigenous populations.¹² Our research seeks to give an overview of the evidence and the diversity of knowledge available in this area.

This scoping review will be conducted from June 2022. Scoping review findings will demonstrate how researchers in Aboriginal and Torres Strait Islander contexts can appropriately translate research findings to a range of knowledge-users. A scoping review is necessary to ensure that KT definition, method and practices are, from the outset, created from Aboriginal and Torres Strait Islander needs and interests, with culture at the centre. Adapting Western methods, practices or tools does not produce the same quality of outcomes as designing methods, practices and tools within an Aboriginal and Torres Strait Islander worldview from the outset.¹³ Further, commonly cited definitions, methods and practices of KT are inadequate for Aboriginal and Torres Strait Islander research contexts as they were not developed for these contexts; a scoping review is necessary as the first step to addressing these issues.

The scoping review findings will be relevant to all researchers working in Aboriginal and Torres Strait Islander research contexts. The scoping review findings will also be used to inform KT in *Mayi Kuwayu: the National Study of Aboriginal and Torres Strait Islander Wellbeing (the Mayi Kuwayu Study)*. The *Mayi Kuwayu Study* is a large-scale, national longitudinal cohort study of Aboriginal and Torres Strait Islander peoples aged 16 years and older.¹⁴ It aims to understand the links between culture and health and well-being outcomes for Aboriginal and Torres Strait Islander peoples. The Study was developed for and by Aboriginal and Torres Strait Islander peoples, with their active involvement and input into the Study at every stage.

To date, the key focus of the *Mayi Kuwayu Study* has been on the survey development, survey rollout and validation of measures.¹⁴ KT has been implemented in the *Mayi Kuwayu Study* where possible, including community workshops, participant fact sheets, presentations at

conferences and policy settings, and a strong social media presence. These practices have ensured that knowledge-users have been involved in the design, development and distribution of the Study, and have access to preliminary Study results.

As of December 2021, over 10 000 Aboriginal and Torres Strait Islander people had participated in the Mayi Kuwayu Study. Now that the first wave of data has been collected, the focus of the Mayi Kuwayu Study has recently turned to translating data and results to key knowledge-users: Aboriginal and Torres Strait Islander communities, policy-makers and other researchers. Developing KT practices for the Mayi Kuwayu Study has only been possible since the influx of participant data. The impetus for this scoping review is to inform the KT practices of the Mayi Kuwayu Study, however, results will also be relevant to researchers working in Aboriginal and Torres Strait Islander research contexts more broadly.

There are few other scoping or literature reviews on KT for Indigenous peoples internationally. Morton Ninomiya *et al*¹⁵ conducted an international review of KT in Indigenous health research to inform their work in Canada, and Shibasaki *et al*¹¹ conducted an international scoping review of KT models and frameworks which could be applied in the Torres Strait. While work is progressing for KT in Indigenous research contexts, to date, a review of KT for research with Aboriginal and Torres Strait Islander peoples specifically has not been conducted. The present review will be the first to explore KT across Aboriginal and Torres Strait Islander Australia, which aims to fill the gap in understanding the definitions, methods and processes implemented in KT with Aboriginal and Torres Strait Islander peoples in Australia.

Methodology

This scoping review is conducted under an Indigenous research methodology. As a protocol of an Indigenous research methodology, all stages of this research are guided by an Aboriginal and Torres Strait Islander governance committee. The *Thiitu Tharrmay Aboriginal and Torres Strait Islander Research Governance Committee* provides independent advice on research and evaluation activities conducted by the Aboriginal and Torres Strait Islander well-being team at the Australian National University. *Thiitu Tharrmay* consists of at least 10 Aboriginal and/or Torres Strait Islander members who are involved in the analyses, interpretations and outputs of work conducted by the Aboriginal and Torres Strait Islander well-being team, including this scoping review. While it is not possible to represent the full diversity of the Aboriginal and Torres Strait Islander population, members of *Thiitu Tharrmay* collectively represent a diversity of Aboriginal and Torres Strait Islander lived experiences, come from different communities, cultures and countries, and different research backgrounds and expertise. Governance by *Thiitu Tharrmay* ensures that Aboriginal and Torres Strait Islander epistemologies (ways of knowing),

axiologies (ways of doing) and ontologies (ways of being) are centred throughout the review.^{16 17}

As another protocol of an Indigenous research methodology, we will also conduct the scoping review and its analyses under Australian Indigenous Data Sovereignty principles, as outlined by the *Maiam nayri Wingara* Indigenous Data Sovereignty Collective.¹⁸ Under these principles, we will have Aboriginal and Torres Strait Islander peoples control the data ecosystem; contextualise the scoping review findings; present data in ways that are relevant and empower self-determination; and ensure results are protective, strengths-based and accountable to Aboriginal and Torres Strait Islander peoples and communities. For details on how Indigenous Data Sovereignty Principles will be met throughout the scoping review, see online supplemental file 1.

METHODS AND ANALYSIS

Patient and public involvement

No patients involved.

Objective

Our research question is: *what are the KT practices used in Aboriginal and Torres Strait Islander research contexts?* Our objective is to map, report and discuss the literature on KT in Aboriginal and Torres Strait Islander Australia.

Inclusion criteria

To answer this research question, we will conduct a scoping review following methods outlined by the Joanna Briggs Institute (JBI).¹² The JBI method provides the principles of how to conduct a scoping review, including developing the inclusion criteria, conducting the search strategy and charting the results. This method was selected due to JBI's extensive work on evidence-based tools and resources, which are updated in line with methodological developments, making these methods the leading standards of practice.¹⁹ This method has also been implemented in other scoping reviews in Aboriginal and Torres Strait Islander research (eg, see Usher *et al*²⁰).

Scoping reviews intend to have a broad scope and less restrictive inclusion criteria than other types of reviews.¹² To develop our inclusion criteria, the authors developed a list of common terms for “knowledge translation”, and worked with *Thiitu Tharrmay* to identify any additional terms used in academic and research settings to refer to “knowledge translation”. Members of *Thiitu Tharrmay* agreed that “knowledge translation” is an academic and research term that may not resonate with Aboriginal and Torres Strait Islander community members, but is appropriate for conducting the scoping review. *Thiitu Tharrmay* did not identify any additional search terms for the scoping review that were not already identified by the authors.

We use the truncated “Aborig*” to refer to common variations of “Aboriginal”. We specify “Torres Strait” to include only peoples from the Torres Strait and exclude

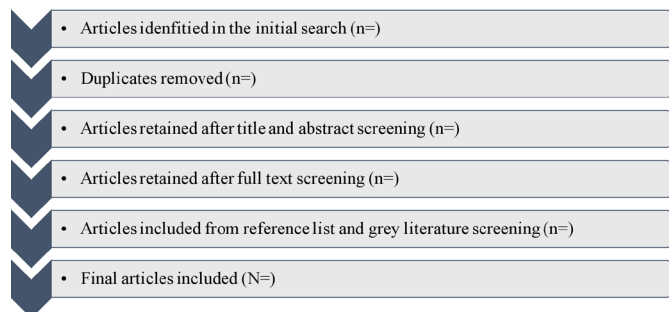


Figure 1 Source selection process.

other Islander groups. We also include “Indigenous”, “First Nations” and “First Peoples” as these terms are commonly used to refer to Aboriginal and Torres Strait Islander peoples in Australia. Studies will be included if they purposefully focus on Aboriginal and/or Torres Strait Islander participants. Studies that include Indigenous participants internationally will only be included if they also include Aboriginal and/or Torres Strait Islander participants. Studies will be included if they describe research with either ongoing or completed KT processes. Discussion papers, literature reviews, commentaries and thesis will be included, while protocol papers will be excluded. We additionally restrict to ‘Australia’ and English language only. We do not restrict to any research area to keep the scope as broad as possible. The inclusion criteria for this scoping review are:

1. Population: (“*Aborig**” or “*Torres Strait**” or “*Indigenous*” or “*First Nation**” or “*First People**”).
2. Concept: (“*knowledge translation*” or “*knowledge exchange*” or “*knowledge transfer*” or “*knowledge mobilisation*”).
3. Context: (*Australia*).

Search strategy

Step 1 is an initial search in the ANU SuperSearch online database, an all-in-one academic search engine that includes 568 electronic resources. The full list of e-resources and databases is available at: <http://library-admin.anu.edu.au/e-resources/index.html?showAll=GO>. In step 2, search results will be imported into EndNote, with duplicates removed. Step 3 is a two-stage screening

process by two separate reviewers, using the inclusion criteria described earlier. Titles and abstracts will be scanned for eligibility for full-text review. To be eligible for full-text review, resources must be about KT, and must include Aboriginal and Torres Strait Islander peoples in the study population. Any discrepancies will be discussed between the two reviewers to come to a final decision. If a decision cannot be made, advice will be sought from an Aboriginal and/or Torres Strait Islander researcher. In step 4, all included resources will then undergo a full-text review. Finally, step 5 involves reviewing grey and hard to find literature that are not peer-reviewed, by searching the reference lists of included material, searching Indigenous research databases (Lowitja Institute Lit.Search, Trove, Aboriginal and Islander health worker journal, and Australian Indigenous HealthInfoNet), and hand-searching books and chapters.

Source of evidence selection

The source selection process is detailed in [figure 1](#).

Presentation of evidence

We use the JBI method in conjunction with an Indigenous research methodology to first map and summarise the overall evidence, and to second present evidence that are aligned with Aboriginal and Torres Strait Islander worldviews. All scoping review analysis and presentation of evidence will be conducted in collaboration with *Thiitu Tharmay*.

We first follow the JBI guidance on presenting search results (eg, charting the descriptive criteria of each included source). JBI note that presenting the evidence can be an ‘iterative process’ for additional data that can be usefully charted, and that the presentation of the results is ‘expected to be further refined toward the end of the review’.¹⁹ After charting JBI’s recommended criteria, in line *Thiitu Tharmay*’s advice, we therefore also report on evidence relevant under our Indigenous research methodology. This will include whether the study worked with a community reference group during the research, and whether the study centred what was important to the community in the translation activities.

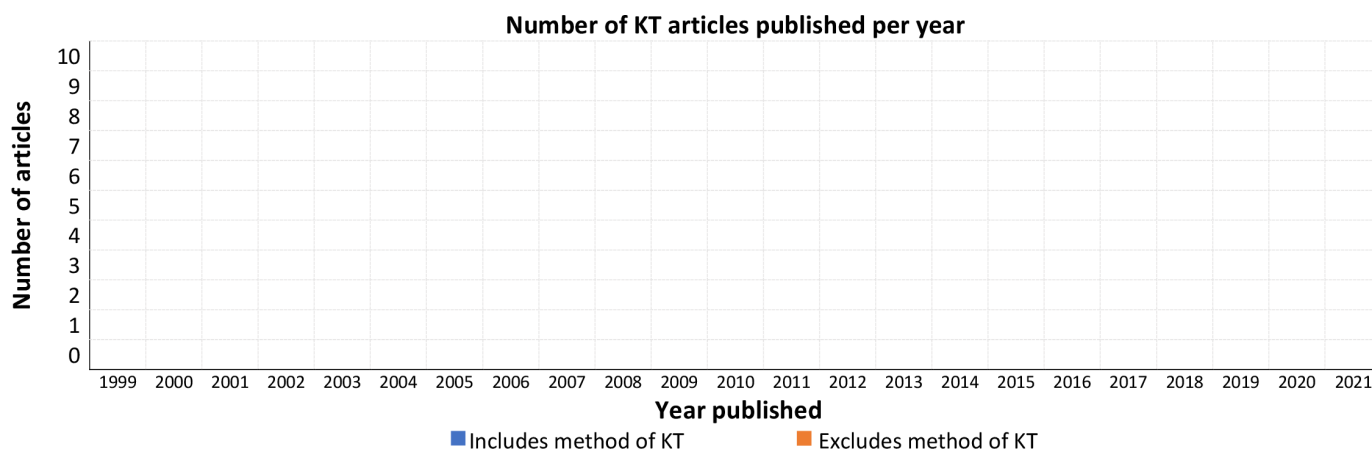


Figure 2 Number of KT articles published each year by inclusion/exclusion of KT method. KT, knowledge translation.

Table 1 Overview of scoping review results

Author	Title	Research area	KT definition	KT method	Indigeneity of participants	Indigeneity of author/s
KT as the primary focus of the research						
KT as a component of the research						
*Indigeneity of authors is unknown. KT, knowledge translation.						

Presentation of scoping review results will also include calculating the distribution of articles based on extracted topics. This will include the distribution of articles published per year against the type of KT method (figure 2). It will also include evidence on the research area (eg, health, education, social science), the KT definition and method for each study, and Indigeneity of participants (ie, Aboriginal, Torres Strait Islander, or both Aboriginal and Torres Strait Islander). Where possible we will also report whether the article was authored by Aboriginal or Torres Strait Islander individuals and we will privilege the articles by Aboriginal and Torres Strait Islander peoples in our analyses, through more detailed reporting and examination of KT theory and methods used, as part of the Indigenous research methodology (table 1). Other additional evidence to extract, collate and present on according to our Indigenous research methodology is an ongoing and iterative process with *Thiitu Tharrmay*.

Transparency and readability of the scoping review results are of utmost importance for the benefit of other Indigenous health researchers. As such, reporting of the scoping review results will follow the PRISMA-ScR (Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews) guidelines. The PRISMA-ScR contains a 20-item checklist for reporting results of a scoping review, developed by experts following best-practice guidance on increasing quality and transparency of research. The PRISMA-ScR guidelines helps scoping review readers ‘develop a greater understanding of relevant terminology, core concepts, and key items’.²¹

ETHICS AND DISSEMINATION

The Mayi Kuwayu Study has ethics approvals from the Australian Institute of Aboriginal and Torres Strait Islander Studies, the ANU Human Research Ethics Committee, and from an additional 12 State and Territory committees, including relevant Aboriginal and Torres Strait Islander organisations:

- ▶ Aboriginal Health and Medical Research Council (AH&MRC) NSW: 1268/17.

- ▶ Aboriginal Health Research Ethics Committee SA: AHREC 04-17-723.
- ▶ ACT Health 2018/ETH/00205.
- ▶ Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS): E030/22052015.
- ▶ Australian National University Human Research Ethics Committee: 2016/787.
- ▶ Central Australian Human Research Ethics Committee (CAHREC) CA-17-2810.
- ▶ Metro South, Queensland: HREC/2019/QMS/56115.
- ▶ NT Department of Health & Menzies: 2017-2804.
- ▶ Nunkuwarrin Yunti.
- ▶ St Vincent’s Hospital Melbourne HREC: 132/17.
- ▶ University of Tasmania (UTAS): H0016473.
- ▶ Western Australian Aboriginal Health Ethics Committee (WAAHEC): 787.

This protocol is registered with The Open Science Framework and is available online (osf.io/asmp6). The results of this scoping review will be discussed with *Thiitu Tharrmay* and disseminated through a peer-review publication and Aboriginal and Torres Strait Islander community, info sheets, workshops and presentations.

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Contributors M-MB and RL conceptualised this work. M-MB drafted the manuscript. RL, SB, FW conducted the critical review of the manuscript. All authors have read and agreed to the published version of the manuscript.

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Competing interests None declared.

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Supplementary File 1: Details on the Maiam nayri Wingara Indigenous Data Sovereignty Principles will be enacted within the scoping review¹

Principle 1: Demonstrate how your proposed project ensures Aboriginal and Torres Strait Islander people will exercise control (all or individual elements) of the data ecosystem.

Control: An Aboriginal and Torres Strait Islander research team control all aspects of this research. The scoping review is designed and led by an Aboriginal academic (MB Wiradjuri) and all other members of the research are Aboriginal or Torres Strait Islander (SB Gidja and Gamilaroi; FWL Torres Strait Islander with giz from Erub, Mabuia and Badu; RL Ngiyampaa/Wongaibon).

Data stewardship: All stages of the data ecosystem will be controlled by the research team under the guidance of an Aboriginal and Torres Strait Islander governance committee *Thiitu Tharrmay* who will:

1. Be a source of expertise and advice on Aboriginal and Torres Strait Islander cultures;
2. Provide advice on the appropriate conduct of research including ensuring that the research, dissemination and policy agenda reflects Aboriginal and Torres Strait Islander community priorities and values;
3. Assist in developing the scoping review search terms and criteria;
4. Facilitate the dissemination and translation of research findings with Aboriginal and Torres Strait Islander communities and organisations;
5. Review and assist in interpreting scoping review results before publication;
6. Contribute to publications where appropriate;
7. Provide links to other relevant research, policy and practice initiatives that may benefit from scoping review results.

Data analysis: Steps 1 and 2 of the search strategy will be conducted by MB. Step 3 will be conducted by MB and RL. Steps 4 and 5 will be conducted by MB, SB, FWL and RL. Interpretation and analysis of results from the final included articles will be discussed with the Aboriginal research team and *Thiitu Tharrmay*.

Data dissemination: Aboriginal and Torres Strait Islander people will receive information from the scoping review through community focus groups, seminars and workshops; community reports; and social media posts on the results of the scoping review. Scoping review information will also be available to Aboriginal and Torres Strait Islander peoples, and non-Indigenous people, in peer reviewed journals, conferences, and policy briefs where relevant.

Principle 2: Demonstrate how your proposed project will include contextual aspects and be disaggregated (available and accessible at individual, community and Indigenous national levels).

Contextual: Any data or output will include contextual information, for example the history of research on Aboriginal and Torres Strait Islander peoples. This context will help in truth telling and explaining the story behind the data. When working with Aboriginal and Torres Strait Islander communities, they will have opportunities throughout to comment, influence and work with the data outputs, including the way the data is presented back to community members. This gives scope for community-specific contextual information.

Accessible and available: Outputs will be made available to Aboriginal and Torres Strait Islander communities through KT forums. These may involve focus groups, interviews, workshops and presentations to give the requested data back to communities in ways relevant and meaningful to them. Pending COVID travel restrictions, these KT forums will be held on site in communities to allow for as many participants attending as possible. Resources on the data and outputs will also be provided to communities in plain-language and accessible formats for wider community distribution.

Principle 3: Demonstrate how your proposed project will empower sustainable Indigenous self-determination and effective self-governance.

Relevant: The Mayi Kuwayu Study is the largest national study of Aboriginal and Torres Strait Islander health and wellbeing to date. Its development came from Aboriginal and Torres Strait Islander peoples' and communities' desires to have their cultures, health and wellbeing better understood – on our own terms. The present scoping review is about giving this data back to stakeholders in ways relevant to them. This ensures that all data from the Mayi Kuwayu Study that is translated to communities is relevant to their specific contexts and needs, and reduces the burden on Aboriginal and Torres Strait Islander communities. Throughout the Mayi Kuwayu Study, there has been a strong desire from partner communities to have their own community-specific data given back to them in ways that are accessible to their needs. This call directly relates to the scoping review: it is first necessary to understand what works and what doesn't work in Aboriginal and Torres Strait Islander research contexts, in order to be able to develop an effective and evidence-based knowledge translation plan

Self-determination and self-governance: This project will contribute to Indigenous self-determination and governance through Aboriginal and Torres Strait Islander control of the project as all Research Team members are Aboriginal or Torres Strait Islander, and the project's governance group *Thiitu Tharrmay* are all Aboriginal and/or Torres Strait Islander. While it is not possible to represent all the diversity across the Aboriginal and Torres Strait Islander population, within these two groups are a diversity of Aboriginal and Torres Strait Islander peoples, from different mobs and Countries, and with different research backgrounds and expertise. This helps maintain Aboriginal and Torres Strait Islander control over decisions throughout the life of the project while representing some of the diversity across different mobs.

Principle 4: Demonstrate how your proposed project has data structures that are accountable to Indigenous peoples.

The Research Team will be guided by data storage procedures at the Australian National University (ANU). Data will be stored on the ANU secure server, only accessible by approved members of the research team. Data stored on the ANU secure server is backed up daily at midnight. The data is stored at three geographically separate off-site Data Centres: Crisp, Huxley, and NCI. At the completion of the research project, the data will be stored on the secure, password-protected shared drive for 7 years after data collection, or 5 years after any publication, whichever is longer. Draft project output will be provided to Aboriginal and Torres Strait Islander stakeholders including *Thiitu Tharrmay* for input and feedback, prior to their finalisation and dissemination.

Principle 5: Demonstrate how your proposed project results are protective and respects Indigenous individual and collective interests.

The scoping review is being conducted under a strengths-based methodology: we are looking for KT practices that work for Aboriginal and Torres Strait Islander communities to be able to develop a KT framework that is, from the outset, based on Aboriginal and Torres Strait Islander values, worldviews and ways of knowing, being and doing. The KT framework will enable Aboriginal and Torres Strait Islander communities to use Mayi Kuwayu Study data for their own individual and collective interests.

Our findings will be protected after dissemination through clear and consistent messaging in peer reviewed publications, reports, social media and public presentations. Any misinterpretation of findings will be corrected online and in person as soon as possible, and any trolling will be removed from online spaces.

¹ Available at: <https://mkstudy.com.au/dataapplicationprocess/> and <https://www.maiamnayriwingara.org/key-principles>