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Study Protocol to Assess the Impact of COVID-19 on Preventive Health Behaviours among Indigenous Peoples in Australia

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Study Protocol to Assess the Impact of COVID-19 on Preventive Health Behaviours among Indigenous Peoples in Australia

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MESH Terms: Preventive Medicine; Public Health Practice; Public Health Surveillance; Coronavirus

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Abstract

Introduction: Chronic conditions impact Indigenous Peoples of Australia at a much higher rate than non-Indigenous Australians. Attendance at the Medicare Benefits Scheme (MBS) supported Indigenous health checks are crucial to improve prevention and management of chronic health conditions. However, in conjunction with lifestyle and environmental factors, attendance rates at primary health care services for screening and treatment have fallen in Australia during the COVID-19 pandemic. The current study aims to measure the impact of the COVID-19 pandemic on current preventive health behaviours and explore the unique barriers and enablers to engaging in preventive health behaviours due to COVID-19 to inform targeted intervention strategies to increase engagement with preventive health services in the future.

Methods and analysis: The present study will use a mixed method design to investigate the impact of COVID-19 pandemic on preventative health behaviours for Indigenous Peoples in Australia, as well as examine barriers and enablers of attendance at preventive health services. Phase 1 MBS data analysis will involve descriptive analyses of the characteristics of Indigenous Peoples of Australia claiming health assessment services; and using Generalized Estimating Equation (GEE) regression models to examine of the use of health assessment services over time. Phase 2 interview data will be analysed using a thematic approach guided by the principles of Indigenist praxis, storytelling and collaborative research.

Ethics and dissemination: For Phase 1 research, an ethics application has been submitted to the ethics committee requesting access to the MBS data. For Phase 2 interviews, the project has approval from the Aboriginal Health and Medical Research Council of New South Wales (AH&MRC of NSW). Findings will be disseminated via peer-reviewed journal articles, conferences, government and relevant stakeholder reports, and infographics.

Acknowledgements:

We acknowledge and celebrate the cultural diversity of all Aboriginal and Torres Strait Islanders peoples and pay respect to Elders past, present and future. We recognise their continuing connection to land, waters and culture. The authors wrote this article on the lands of the Anaiwan peoples of the Armidale area, the Gamilaroi peoples of Tamworth and Quirindi area, the Barwon, Bundarra, Balonne, and upper Hunter rivers and Liverpool plains area, the Gundungurra people, Gadigal and Dharug Peoples of the Blue Mountains, Sydney and Western Sydney. Hereafter, throughout this paper, when referring to the diverse First Nations Peoples of this great land, we use the term Indigenous for brevity.

Strengths and limitations of this study

- A strength of this study is that it combines large data and yarning story-telling with Indigenous people to provide an in-depth explanation of current preventive behaviours during isolation, identify barriers and enablers of health seeking behaviours in regard to preventive health programs, and outline potential strategies to improve health behaviours and attendance at preventive programs in the future.
- On-going and authentic engagement with Indigenous communities to ensure findings are meaningful and relevant to community.
- Not all Indigenous Australians are enrolled on the MBS (Medicare) database via the Voluntary Indigenous Identifier. Therefore, our findings may underestimate the health services utilisation of Indigenous Australians pre-, during, and post-COVID-19 pandemic.
- MBS claims data are limited to medical services subsidised by the Australian government such as GP and allied health services. Thus, other health services used by Indigenous Australians were not included in our project.

INTRODUCTION

Chronic conditions impact Indigenous Peoples of Australia at a much higher rate than non-Indigenous Australians, and are responsible for the majority of their disability and death [1]. The chronic conditions affecting Indigenous People's health include cardiovascular diseases, respiratory diseases, renal diseases, diabetes, and infectious diseases [2]. These conditions, which require ongoing management, have much better outcomes if identified early and managed effectively by regular screening and regular routine care [3]. The Australian Government Department of Health implemented national key performance indicators (KPIs) for Indigenous specific health-care services to improve prevention and management of chronic health conditions. Attendance at the Medicare Benefits Scheme (MBS) supported Indigenous health checks MBS item 715), one of the KPIs, has had varied responses across the country.

Indigenous populations experience exclusion and marginalisation from mainstream Western bio-medical models of healthcare and previous research has identified barriers to regular treatment and follow-up through primary care services including racial discrimination, poor communication, distance and travel issues (accessibility), and financial concerns [4, 5], leading to the development and delivery of Indigenous primary health care through specialised community-controlled health services. Unfortunately, we know that attendance rates at primary health care services for screening and treatment have fallen in Australia during the COVID-19 pandemic and people are less likely to see their doctor for any non-urgent health related activity [6]. Indigenous People face additional challenges such as crowded housing and lower levels of health literacy [1]. Many Indigenous people have multiple underlying chronic conditions and greater susceptibility to, and poorer outcomes from infectious diseases. Indigenous Peoples also tend to be more family and community

focused than non-indigenous Australians, therefore, following social isolation guidelines aimed at reducing the chance of contracting COVID-19 has made family life more difficult [7]. It is important to note however, that Aboriginal Controlled Health Services have led the way in ensuring Indigenous people of Australia are adequately serviced during the pandemic.

Indigenous People are prone to chronic health conditions [1]. In conjunction with lifestyle and environmental factors, this increases the risk to Indigenous Peoples who catch COVID-19 [7], as evidenced by poor outcomes in previous pandemics [8]. Unfortunately, Indigenous Peoples generally have lower rates of access to preventive health opportunities [9], and the research team experience indicates that these rates have decreased as a result of COVID-19, similar to that seen in non-Indigenous Australians. Understanding barriers in engaging in preventive health behaviours due to COVID-19 in this population group will help in developing and implementing specific intervention strategies to improve engagement with preventive health services.

The present study will measure the impact of COVID-19 on the current preventive health behaviours of Indigenous Peoples, residing in New South Wales (NSW), Australia, provide an in-depth explanation of current preventive behaviours during isolation, identify barriers and enablers of health seeking behaviours in regard to preventive health programs, and outline potential strategies to improve health behaviours and attendance at preventive programs in the future.

Aim of the study

This study aims to measure and explore the impact of the COVID-19 pandemic on current preventive health behaviours and investigate barriers and enablers of engaging with preventive health services with Indigenous Peoples residing in NSW.

Research questions

What are the pre-, during, and post-COVID-19 levels of preventive health behaviours, and what are the barriers and enablers of preventive health behaviours and service utilisation by Indigenous People residing in NSW?

METHODS

Study design and procedure

The study will include two phases. Phase 1 will involve analysing the health services of Indigenous Peoples residing in NSW at three-time points: pre (2019), during (2020), and post the COVID-19 outbreak (2021) via the routinely collected MBS data [10]. Phase 2 will involve a qualitative study using a "yarning" storytelling approach that will explore the reasons for attending or not attending preventive health appointments following COVID-19, current preventive health behaviours during COVID-19 isolation, and to identify interventions that can be adopted in the future to improve participation in preventive health behaviours and appointment attendance. Phase 2 interviews will be conducted within NSW communities with whom the team has research collaborations, ensuring the study will be ready to progress in the minimum possible time. Relevant ethics approvals to conduct the study are in development to ensure rapid commencement; the study has collaborated with the Indigenous communities throughout the early design and the ongoing implementation of the project.

Study sample

The study sample for Phase 1 are patients recorded in the MBS dataset, restricted to those who identify as Aboriginal and Torres Strait Islander people residing in NSW regardless of age. The collection of MBS data for 2020 and 2021 has not been completed. Therefore, the number of patients for which MBS data are held for this study is unknown. According to the

latest report from the AIHW, there were 66,752 Indigenous People in NSW who had at least one Indigenous-specific health check in 2017-18 [1]. For Phase 2, 15 to 20 qualitative interviews will be conducted at each participating site (n=80) using purposive sampling.

Data collection

The MBS is the universal health insurance scheme in Australia, providing access to health care services for all Australian residents and certain categories of visitors to Australia. The MBS services data for Phase 1 will be administered by Services Australia (https://www.servicesaustralia.gov.au/), covering all people who make claims through MBS. The de-identified MBS claims data (i.e. the patient and health provider' identification numbers and related information are encrypted) will be granted to the researchers. In addition to the demographic characteristics of the included patients (e.g. sex and geographic region that a patient enrolled with Medicare), MBS data used in Phase 1 also consists of information such as the type of subsidised services by varied health professionals (e.g. medical doctors and allied health practitioners). In addition, treatments provided in public hospitals that are listed on the MBS, and the date of the service will be provided.

Phase 2 will involve a qualitative study using a "yarning" storytelling approach that will explore the reasons for attending or not attending preventive health appointments during the COVID-19 crisis, to explore current preventive health behaviours during COVID-19 isolation, and to identify strategies and interventions that can be adopted in the future to improve preventive health behaviours and preventive appointment attendance.

Phase 2 interviews will be conducted in NSW (Mt Druitt, Sydney, and Coledale/Tamworth, Quirindi/Werris Creek, and Toomelah communities in the Tablelands region) in partnership with local Aboriginal Community Controlled Health Organisations, with whom the team has research collaborations. A collaborative approach to the research will be undertaken including the involvement and governance of Aboriginal Cultural Advisory Committees to

ensure the research is reflexive and receptive to the feedback with participating communities [11].

Patient and Public Involvement

The research was co-designed with the Aboriginal Advisory Group members at Coledale Community Centre and in Consultation with Walhallow Aboriginal Health Corporation, Quirindi, Australia and Armajun Aboriginal Health Service, Armidale NSW, Australia. The groups will also assist with the development and dissemination of appropriate recruitment and data collection techniques. Results of this research will be disseminated using a number of strategies and awareness-raising processes aimed to meet the needs of Aboriginal Corporations and service providers, primary health care providers, members of the community, Local Health Districts, policymakers influencing government and non-government health services as well as an academic audience. They will include information packs, short videos, posters, social media advertising, presentations, workshops and academic papers.

Ethical considerations

Ethical approvals appropriate to undertake the study will be adhered to at all times. Imperative to the ongoing partnership and collaboration with Indigenous communities, we have considered our design to honour the six core values of research with Indigenous Peoples and their communities [12]. Ensuring these are recognised and respected throughout the research and upholding them through the "past, present and future" of our project [12]. The six core values are spirit and integrity, cultural continuity, equity, reciprocity, respect and responsibility. By enacting these values throughout the research project, we protect the needs of the communities of which are involved by aligning our research outcomes with their priorities, including the nurturing of long-term relationships with Indigenous Peoples, their communities, researchers and community-controlled organisations [12]. To demonstrate our use of these principles throughout the research design, we have adopted Indigenous ways of knowing, being and doing as a research lens to ensure our work is conducted from a

decolonizing approach [13]. For example, in Phase 2 of the project, we will use "yarning" and Indigenous storytelling as our method of data collection [14, 15].

Data analysis

Phase 1 Quantitative data analysis

The statistical analyses include two components: (i) descriptive analyses of the characteristics of Indigenous Peoples of Australia claiming health assessment services; (ii) an examination of the use of health assessment services over time, using statistical control charts and multivariable Generalized Estimating Equation (GEE) regression models.

Descriptive analyses will include identifying the demographic characteristics of the Indigenous People who have claimed health services- which will be examined before, during, and after the COVID-19 isolation period. These cross-sectional analyses will use statistical methods including Student's *t*-tests, analysis of variance (ANOVA), chi-square tests, and logistic regression. Statistical control charts will be constructed to examine the trend of changes in the count of health services amongst Indigenous Peoples before, during, and after the COVID-19 pandemic. Multivariable GEE regression models will be used to conduct longitudinal analyses, examining the use of health services including both health assessments and telehealth services/video consultation over time, taking into account potentially repeated use of these service by individuals. To control potential confounding in analyses, covariates include the variables ascertained via MBS data including sociodemographic characteristics and clinical factors. We will adjust the models for the effects of all covariates. Statistical significance is set at $p < 0.05$. All analyses will be undertaken with Stata (version 16).

Phase 2 Qualitative data analysis

Analysis of data will be conducted by the research team in collaboration with partners and participants, using a thematic approach guided by the principles of Indigenist praxis, storytelling and collaborative research. The analytic process will be informed by Smallwood,

Power, Woods, Jackson and Usher's [16] place-based meaning process, where researchers and collaborators create methodological relevance through locally driven Indigenous concepts across the study sites, thus enhancing the way data is transformed through cultural relevance to place, time and space [13]. This process recognises the way in which collective reflexivity is embedded into the process of meaning making and how this is interpreted through the addition of based meaning [11]. Storytelling analytic processes will also be used [15].

Study outcomes

Regarding Phase 1, the primary outcome measure is the health assessment services (e.g., consultations and procedures) of Indigenous Peoples provided by primary care practitioners between January 2019 to December 2021. The secondary outcomes are the use of corresponding telehealth services and video consultations of these health assessment services. Phase 2 outcomes will include a comprehensive understanding of the barriers and enablers of the engagement with preventive health checks and strategies to be developed and implemented to improve participation in preventive health behaviours of Indigenous People residing in NSW.

Dissemination

The findings will be published in international, peer-reviewed journals, provided as a report to NSW Health, presented at relevant conferences, and shared through media interviews. Other dissemination will occur through presentations to collaborating partners and communities and other relevant groups such as the Primary Health Network, and policy makers. Information will be published on social media sites where appropriate. Posters to depict the study and outcomes using infographic displays will also be developed and shared with relevant groups and on the university website.

DISCUSSION

This mixed methods study will investigate the impact of the COVID-19 pandemic on preventative health behaviours for Indigenous People, as well as examine barriers and enablers of attendance at preventive health services. The results of this study will allow us to better understand the unique barriers and enablers to engaging in preventive health behaviours due to COVID-19 to inform targeted intervention strategies to increase engagement with preventive health services in the future.

Study status

To date, we have submitted the ethics application to obtain MBS data for Phase 1, and received ethical approval from the AH&MRC NSW for Phase 2 interviews.

Contributors

KU, NB, WP, DS and DJ wrote the protocol paper with input from all other authors. KU led the design project, with contributions and advice from all other investigators. KU, NB, WP, RP, TP and DS contributed to decisions on outcome measures. SU WP advised on MBS Data Requirements. CP, DA, RS TP provided cultural guidance and RS and JD also contributed to the protocol design and submission. KU is the local principal investigator. All authors have read and approved the final draft.

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Competing interests The authors have no competing interests to declare.

Data Sharing: Data will be lodged on the university data storage repository Research UNE (RUNE) after completion of the study and will be available by request.

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Influence of COVID-19 on the preventive health behaviours of Indigenous Peoples of Australia residing in New South Wales: A mixed method study protocol

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Influence of COVID-19 on the preventive health behaviours of Indigenous Peoples of Australia residing in New South Wales: A mixed method study protocol

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Influence of COVID-19 on the preventive health behaviours of Indigenous Peoples of Australia residing in New South Wales: A mixed method study protocol

Abstract

Introduction: Chronic conditions impact Indigenous Peoples of Australia at a much higher rate than non-Indigenous Australians. Attendance at the Medicare Benefits Scheme (MBS) supported Indigenous health checks are crucial to improve prevention and management of chronic health conditions. However, in conjunction with lifestyle and environmental factors, attendance rates at primary health care services for screening and treatment have fallen in Australia during the COVID-19 pandemic. This study aims to explore the influence of the COVID-19 pandemic on preventive health behaviours of Indigenous Australians and the associated barriers to, and enablers of, engagement with health services to formulate a targeted intervention strategy.

Methods and analysis: A concurrent mixed methods study (comprising quantitative and qualitative data collection methods) will be employed. Descriptive analysis of MBS data about the characteristics of Indigenous Peoples of Australia claiming health assessment services will be performed. Generalised Estimating Equation (GEE) regression models will be used to examine the use of health assessment services over time. Qualitative interviews informed by Indigenous research methods will be conducted. Interviews will investigate barriers to, and enablers of, engagement with health services. Thematic approach guided by the principles of Indigenist praxis, storytelling and collaborative research will be used to analyse the interview data. The project commenced in July 2020 and will be completed by July 2022.

Ethics and dissemination: The project received ethics approval from the Aboriginal Health and Medical Research Council of New South Wales (AH&MRC of NSW) and the University of New England (UNE) Human Research Ethics Committee. Findings will be disseminated via peer-reviewed journal articles, conferences, government and relevant stakeholder reports, and infographics.

Acknowledgements:

We acknowledge and celebrate the cultural diversity of all Aboriginal and Torres Strait Islanders peoples and pay respect to Elders past, present and future. We recognise their

continuing connection to land, waters and culture. The authors wrote this article on the lands of the Anaiwan peoples of the Armidale area, the Gamilaroi peoples of Tamworth and Quirindi area, the Barwon, Bundarra, Balonne, and upper Hunter rivers and Liverpool plains area, the Gundungurra people, Gadigal and Dharug Peoples of the Blue Mountains, Sydney and Western Sydney. Hereafter, throughout this paper, when referring to the diverse First Nations Peoples of this great land, we use the term Indigenous for brevity.

Strengths and limitations of this study

- A strength of this study is that it combines large data and yarning story-telling with Indigenous people to provide an in-depth explanation of current preventive behaviours during isolation, identify barriers and enablers of health seeking behaviours in regard to preventive health programs, and outline potential strategies to improve health behaviours and attendance at preventive programs in the future.
- On-going and authentic engagement with Indigenous communities to ensure findings are meaningful and relevant to community.
- Not all Indigenous Australians are enrolled on the MBS (Medicare) database via the Voluntary Indigenous Identifier. Therefore, our findings may underestimate the health services utilisation of Indigenous Australians pre- and during COVID-19 pandemic.
- MBS claims data are limited to medical services subsidised by the Australian government such as GP and allied health services. Thus, other health services used by Indigenous Australians were not included in our project.

INTRODUCTION

Indigenous Peoples of Australia are prone to chronic health conditions [1]. In conjunction with lifestyle and environmental factors, this increases the risk to Indigenous peoples contracting COVID-19 [2], as evidenced by poor outcomes in previous pandemics [3]. Unfortunately, Indigenous Peoples generally have lower rates of access to preventive health opportunities [4], and the research team experience indicates that these rates have decreased as a result of COVID-19, similar to that seen in non-Indigenous peoples of Australia. Attendance rates at primary health care services for screening and treatment have fallen in Australia during the COVID-19 pandemic and people are less likely to see their doctor for any non-urgent health related activity [5]. Many Indigenous Peoples have multiple underlying chronic conditions and greater susceptibility to, and poorer outcomes from infectious diseases. Aboriginal Controlled Health Services have led the way in ensuring Indigenous people of Australia are adequately serviced during the pandemic.

Understanding barriers to engaging in preventive health behaviours and attendance at health services due to COVID-19 in this group will help in developing and implementing specific intervention strategies to improve engagement with preventive health services. The present study will explore the influence of COVID-19 on the preventive health behaviours of Indigenous Peoples, residing in New South Wales (NSW); Australia and provide an in-depth explanation of the preventive behaviours during isolation; identify barriers to, and enablers of, health seeking behaviours in regard to preventive health programs; and outline potential strategies to improve health behaviours and attendance at preventive programs in the future.

Aim of the study

This study aims to explore the influence of the COVID-19 pandemic on preventive health behaviours and the associated engaging barriers to, and enablers of, engagement with health services.

Research questions

What are the pre- and during COVID-19 levels of preventive health behaviours, and what are the barriers to, and enablers of, preventive health behaviour service utilisation by Indigenous Peoples residing in NSW?

METHODS

Study design and procedure

A concurrent mixed-methods study (comprising quantitative and qualitative data collection methods) will be employed. Descriptive and multivariate analyses of the National Medicare Benefits Scheme (MBS) data about the characteristics of Indigenous Peoples of Australia claiming health assessment services and service utilisation will be performed, respectively. Qualitative interviews informed by Indigenous research methods will be conducted to explore the barriers to, and enablers of, engagement with health services.

The study sample for Phase 1 are patients recorded in the MBS dataset, restricted to those who identify as Aboriginal and Torres Strait Islander People residing in NSW regardless of age. The collection of MBS data for 2020 and 2021 has not been completed. Therefore, the number of patients for which MBS data are held for this study is unknown. According to the latest report from the AIHW, there were 66,752 Indigenous Peoples in NSW who had at least one Indigenous-specific health check in 2017-18 [1]. For Phase 2, 15 to 20 qualitative interviews will be conducted at each of the four participating sites using purposive sampling. Therefore, our aim is to recruit 80 participants (20 participants at each site x 4 sites). This sample size is based on sample guidelines from previously conducted, similar studies [6, 7] and advice from the Aboriginal advisory committee. The project commenced in July 2020 and will be completed by 31 July 2022.

Patient and Public Involvement

The research project, research question and outcome measures and the use of associated methods were designed in consultation with the Aboriginal Advisory Council in Tamworth, NSW, Australia. Further, this research is designed in consultation with Aboriginal Controlled Health Services (Walhallow Aboriginal Health Corporation and Armajun Aboriginal Health Service). Dissemination of the results will include a range of strategies aimed to meet the needs of Aboriginal Corporations and service providers, primary health care providers, members of the community, Local Health Districts, policymakers influencing government and non-government health services as well as an academic audience. They will include information packs, short videos, posters, social media advertising, presentations, workshops and academic papers.

Ethics and Dissemination

The project has approval from the Aboriginal Health and Medical Research Council of New South Wales (AH&MRC of NSW) and the University of New England (UNE) Human Research Ethics Committee. Findings will be disseminated via peer-reviewed journal articles, conferences, government and relevant stakeholder reports, and infographics.

Data analysis

Phase 1 Quantitative data analysis

The statistical analyses of the MBS data include two components: (i) descriptive analyses of the characteristics of Indigenous Peoples of Australia claiming health assessment services; (ii) examination of the use of health assessment services over time, using statistical control charts and multivariable Generalised Estimating Equation (GEE) regression models. Descriptive analyses will include identifying the demographic characteristics of the Indigenous Peoples who have claimed health services- which will be examined before and during the COVID-19 pandemic lockdown period. These cross-sectional analyses will use statistical methods including Student's *t*-tests, analysis of variance (ANOVA), chi-squared tests, and logistic regression. Statistical control charts will be constructed to examine the trend of changes in the count of health services amongst Indigenous Peoples pre- and during the COVID-19 pandemic. Multivariable GEE regression models will be used to conduct longitudinal analyses, examining the use of health services including both health assessments and telehealth services/video consultation over time, taking into account potentially repeated use of these services by individuals. To control potential confounding in analyses, covariates include the variables ascertained via the MBS data including sociodemographic characteristics and clinical factors. We will adjust the models for the effects of all covariates. Statistical significance is set at $p < 0.05$. All analyses will be undertaken with Stata (version 16).

Phase 2 Qualitative data analysis

Analysis of data will be conducted by the research team in collaboration with partners and participants, using a thematic approach guided by the principles of Indigenist praxis, storytelling and collaborative research. The analytic process will be informed by thematic analysis [8] and ongoing consultation with cultural Advisory Committee members. This process recognises the way in which collective reflexivity is embedded into the process of meaning making and how this is interpreted through the addition of based meaning [9].

Storytelling analytic processes will also be used [10]. Following analysis, findings will be taken back to the community for the purpose of developing strategies to inform practice and the possible development of hypotheses for future studies.

Study outcomes

Regarding Phase 1, the primary outcome measure is the health assessment services (e.g., consultations and procedures) of Indigenous Peoples provided by primary care practitioners between January 2019 to December 2021. The secondary outcomes are the use of corresponding telehealth services and video consultations of these health assessment services. Phase 2 outcomes will include a comprehensive understanding of the barriers to, and enablers of, engagement with preventive health checks and strategies to be developed and implemented to improve participation in preventive health behaviours of Indigenous Peoples residing in NSW.

DISCUSSION

The analysis of MBS data will identify the patterns of uptake of Indigenous Health Assessment checks during COVID-19 which will help to indicate whether there is the need for targeted strategies to improve rates of attendance in certain locations. The qualitative results will provide participants perspectives of the impact of COVID-19 on their attendance at preventative health appointments, barriers and difficulty to access and suggestions for improvements. Health prevention can lead to early detection of issues that are potentially treatable. Given the high level of chronic illness in Indigenous peoples of Australia, it is important to understand behaviours related to health prevention behaviours. However, it is increasingly recognised that there is little data in this area related to Indigenous people of Australia. This research project will result in evidence that can be used in the primary care setting to understand the impact of COVID-19 on Indigenous clients, to determine barriers and enablers of access to preventive health services, and to develop strategies to improve access to health prevention services where needed.

Study status

To date, we have submitted the ethics application to obtain the MBS data for Phase 1, and received ethical approval from the AH&MRC NSW for Phase 2 interviews.

Contributors

KU conceptualised and secured funding for the research study. KU, NB, WP, RP, TP, DS, JD, RS contributed to the application to the local Ethics Committee. KU, NB, SA, WP, DS and JD contributed to the application for data to support this study. KU and NB wrote the first draft of this protocol with contributions from DJ, WP, SA, JD, CP, DA, RS TP and DM. CP, DA, RS TP and DM provided specific cultural guidance on this protocol and project. All authors read and approved the final manuscript.

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Competing interests The authors have no competing interests to declare.

Data Sharing: Data will be lodged on the university data storage repository Research UNE (RUNE) after completion of the study and will be available by request.

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Correction: *Influence of COVID-19 on the preventive health behaviours of indigenous peoples of Australia residing in new south Wales: a mixed-method study protocol*

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This article was previously published with an error.

- Indigenous People has been capitalised throughout the paper.
- Orcid ids of authors have been added.
- Contributors and Patient and public involvement statements in the endnotes have been updated.

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