

Yarning about vaccinations: Empowering individuals to have supportive conversations with Aboriginal peoples about vaccinations, using a community-engaged approach

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Abstract

Objective: This study assessed the effectiveness of Aboriginal-led vaccine workshops to enhance knowledge, confidence and supportive conversations regarding scheduled and recommended vaccinations for Aboriginal and Torres Strait Islander people in Hunter New England, New South Wales, Australia.

Methods: We adapted and indigenised an existing vaccine conversation program. Aboriginal and Torres Strait Islander and non-Indigenous people were recruited to workshops delivered either online or face to face.

Results: Seventy participants attended the workshops. Most reported high satisfaction with the workshop content and format, and most reported increased confidence in having vaccine conversations. Post-workshop yarns highlighted the positive impact on community knowledge and collaboration.

Conclusions: Aboriginal-informed and -led education enables and empowers service providers and community members to engage in supportive vaccine conversations with Aboriginal and Torres Strait Islander people.

Implications for Public Health: These findings highlight the need for localised strategies to enhance vaccine understanding with Aboriginal and Torres Strait Islander communities, as well as offering valuable insights to tailor immunisation programs and rollouts of future vaccines.

Key words: Aboriginal and Torres Strait Islander, COVID-19, vaccination, education, community engagement

Background

Vaccination is one of the most affordable and effective public health measures to protect the population against major infectious diseases. Aboriginal and Torres Strait Islander people are a priority population for Australia's immunisation programs due to historically lower vaccination coverage and higher rates of vaccine preventable diseases.^{1–3}

Many factors influence Aboriginal and Torres Strait Islander people's acceptance of vaccines including the following: the ongoing impacts

of colonisation and systemic racism;^{4–6} personal and historical experiences;^{7,8} mistrust in health services; and lack of targeted, trusted and timely information.^{9,10} Poor engagement with Aboriginal Health Workers (AHWs) in the development and implementation of health programs can also lead to culturally inappropriate and unsafe immunisation services.^{5,11,12}

Social processes, such as family norms and health worker recommendations, can influence people's motivation to vaccinate.^{13,14} Vaccination messages from those with similar values can influence community beliefs and improve vaccine coverage.^{15–17}

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Community engagement is an effective measure for informing, involving, and gaining feedback from communities^{14,18} and can enable stakeholders to understand and identify community needs to promote health and wellbeing.¹⁶

Whilst state and national immunisation strategies and targeted immunisation programs in Australia work to achieve and maintain immunisation coverage rates for Aboriginal and Torres Strait Islander people,^{1,19} they generally do not specify how this can be done.

Aboriginal and Torres Strait Islander children in the Hunter New England region of New South Wales, Australia, have high vaccination rates; however, timeliness remains a concern. Before the COVID19 pandemic, childhood immunisation coverage for Aboriginal and Torres Strait Islander children was high,^{3,20} but it declined during the pandemic.³ COVID19 vaccination coverage among Aboriginal and Torres Strait Islander people also remains lower than among the broader Australian population.²¹

Initially, Aboriginal public health practitioners were approached to lead workshops to address low COVID19 vaccination coverage among Aboriginal and Torres Strait Islander people in Hunter New England. We engaged public health experts, leveraging existing relationships. We adapted and lndigenised a COVID19 vaccination workshop developed by J Leask in 2020 for communities, professionals and workplaces which included vaccine information, communication skills, interactive exercises and roleplay scripts. Recognising the decline in childhood and other vaccination coverage for Aboriginal and Torres Strait Islander people during the pandemic, the scope of the workshops widened to include all other vaccines. At the time of the workshops, there were fluctuating levels of COVID19 and influenza activity.

This study aimed to assess the appropriateness and acceptability of tailored vaccine conversation workshops with Aboriginal and Torres Strait Islander and non-Indigenous people who provide services to Aboriginal and Torres Strait Islander communities. We called these workshops “*Keeping Mob Safe: Yarning about vaccination*”.

Specifically, the study sought to understand the following: (i) vaccine knowledge and confidence gained from attending the workshops; (ii) participants' communication confidence following the workshops; (iii) satisfaction with the workshop content and format; and (iv) participants' experience and suggestions for improvement.

Methods

Study setting and type

This study was conducted on the unceded lands of the Awabakal and Gomeri peoples within the Hunter New England Local Health District (HNELHD) in New South Wales, Australia. HNELHD has a population of around 962,000, with approximately 88,000 identifying as Aboriginal and Torres Strait Islander.²²

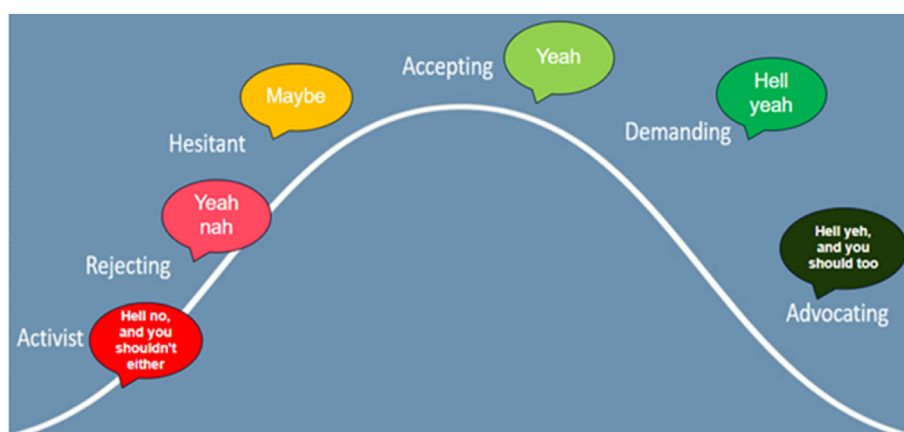
Research conducted on Aboriginal and Torres Strait Islander people has a poor reputation, offering little to no benefit and can (un)intentionally marginalise and segregate Aboriginal and Torres Strait Islander peoples.²³ Decolonising methodologies were used in this study as they challenge how research is conducted and centre Indigenous knowledges, worldviews and experiences.²⁴

This study was led by four Aboriginal members of the research team, enabling control over data, honouring Indigenous Data Sovereignty principles.²⁵ We applied Indigenist research methodologies,²⁴ participatory action research (PAR) to review, refine and revise the workshop content and format,²⁶ and mixed-method approaches of surveys and yarns.

Using an iterative approach, the research team met regularly to refine the workshops using the lens of cultural respect and relevance and critically reflected and modified the content and delivery with respect to participant feedback and community needs.²⁶ Modified examples included culturally appropriate images, adapting a vaccine conversation script²⁷ that is relatable to Aboriginal and Torres Strait Islander people and adapting a figure (Figure 1) relating to the spectrum of peoples positions on childhood vaccination.²⁸

We ensured a culturally safe environment for participants to discuss their experiences and concerns through yarning. Different types of yarning, an Indigenous form of conversation,²⁹ were incorporated to understand context and participants experiences. “Research yarning” gauged participants level of understanding of the topic. “Social yarning” was used to understand local issues, build rapport and trust, allowing time for questions and feedback. “Collaborative yarning” enabled participants to share ideas, explore issues and make suggestions for future workshops. These are important elements in decolonising research practices as they uphold the principles of self-determination and empowerment.

Figure 1: Adapted vaccine hesitancy bell curve.



Source: Covid-19 Vaccines: Safety surveillance manual Communication

Participant recruitment and engagement

We recruited Individuals who provide services to Aboriginal and Torres Strait Islander people and who have the opportunity to have vaccine conversations. Aboriginal and Torres Strait Islander people were invited to attend both online and face-to-face workshops. Non-Indigenous people were invited to an online workshop. Workshop flyers were shared through cultural and professional networks. Participants were provided with an information statement and consent form and were invited to complete a pre-workshop survey. Paper-based surveys were available for participants unable to complete the online survey. After the workshops, participants were invited to complete a post-workshop survey and take part in a post-workshop yarn with the Aboriginal researchers. Aboriginal community members who attended face-to-face sessions received an AUD\$50 gift card.

Workshop facilitation and structure

Workshops were facilitated and led by Aboriginal public health staff, in collaboration with non-Indigenous public health experts with backgrounds in immunisation, public health, and social science. The workshops were delivered both online and in person, offering flexibility.

Workshops were structured into four sections and included culturally informed activities that aimed to engage participants and promote learning.

Introductions enabled participants to “(re)connect and yarn”. Facilitators introduced themselves and invited participants to share “*what’s your name, where you’re from, who’s your mob*”. An Acknowledgement of Country showed respect for the traditional owners of the land on which the workshops took place.

Parts 1 and 2: provided updates of current COVID19 and influenza activity, explored key vaccine preventable diseases, vaccine development, safety and monitoring, and the New South Wales immunisation schedule and recommended vaccines for Aboriginal and Torres Strait Islander people.

Part 3: addressed reasons for vaccine hesitancy, and behavioural and social drivers for vaccine uptake. Existing vaccine conversation scripts were adapted and shown as two video role plays: 1) Unsupportive conversation; and 2) Supportive conversation (using positive communication practices).

Part 4: included information, resources and strategies to encourage participants to become vaccine advocates.

Data collection and analysis

Online surveys were collected using Research Electronic Data Capture; data were exported to Excel, combined with paper-survey data and

analysed. Key points, quotes, and summaries of workshop discussions were documented. Post-workshop yarns were recorded; notes were taken but not transcribed to maintain the authenticity of yarning, avoiding potential misinterpretations by non-Indigenous transcribers.³⁰ Three Aboriginal members of the research team conducted an inductive thematic analysis of workshop notes, surveys and yarning notes and recordings, aligned with decolonising and PAR methodologies to allow themes to naturally emerge.^{26,31,32} They coded the data independently, then collaborated to finalise the themes.

Results

Three online and two face-to-face workshops were held in HNELHD between June 2023 and November 2023, with face-to-face workshops being held in metropolitan and regional areas. A total of 70 people participated (37 online; 33 face-to-face); most were Aboriginal, majority were government health staff (38/70) and most were female (59/70). (Table 1).

Yarning sessions during the workshops

Yarning approaches were woven throughout the workshops, focussing on community questions and concerns, vaccination barriers and having vaccine conversations. Five key themes were identified:

1. Information, knowledge and education

Participants said lack of education and information about vaccines was a barrier to Aboriginal people getting vaccinated. Equipping people with more knowledge about vaccines is important because some participants were aware “*a lot of people don’t think vaccines are safe, and they don’t trust vaccinations*”. They had concerns about the COVID19 vaccines and vaccine ingredients, with one person saying that “*some people think it’s [mRNA] manipulating DNA*”. There were concerns about COVID19 vaccine safety, with some participants stating an “*increase in side-effects*” and its effectiveness and that “*people still got COVID and died*”.

Participants had questions about vaccine schedules, including dose and catch-up doses, asking,

“*If I’m really late with vaccines, should I still get them?*” They emphasised the importance of education, suggesting that community-led, peer education could improve knowledge and perceptions about vaccinations, noting it’s “*good to see mob talking to mob about vaccines*”.

2. Trust and mistrust

Participants discussed how misinformation and conspiracy theories on social media influence people’s vaccine decisions, with concerns

Table 1: Workshop participant and interviewee characteristics.

Workshop participant characteristics				Interviewee characteristics			
Group	Female	Male	Total	Group	Female	Male	Total
Aboriginal community	10	1	11	Aboriginal community	1		1
Gov health	30	8	38	Gov health	4	1	5
Aboriginal Community Controlled Health Services (ACCHS)	6	1	7	Aboriginal Community Controlled Health Services (ACCHS)		1	1
Other organisation	13	1	14	Other organisation		1	1
Total	59	11	70	Total	5	3	8

about vaccine safety, including doubts about the development of the COVID19 vaccine—“*was it made too quick?*”—and fears of childhood vaccines “*causing autism*”. Some participants indicated mistrust in the government’s handling of the COVID19 vaccine being fuelled by changing recommendations and the perception of there being “*too many COVID vaccines now*”.

Public health measures to mitigate risks of COVID19 heightened mistrust due to participants’ personal experiences. Many felt the measures were a form of government control, leading to community anger over lockdowns, which were seen as controlling rather than protective. One participant noted that lockdowns “*isolated [Aboriginal people] from family*”, exacerbating the disconnect during challenging times.

Participants mentioned that vaccination incentives at community events were sometimes seen as bribes rather than genuine efforts to increase uptake. One cited a business offering incentives such as “*free beer to go get your jab*”, which fuelled mistrust and complicated vaccine conversations.

3. Personal, community and cultural factors

Many participants shared that negative childhood vaccination experiences led to emotional responses, affecting how they and their families engage with vaccination. Participants shared their vaccination experiences, their fear of needles and memories of lining up for vaccinations at the “*health clinic and having rough nurses*”, and “*lining up in the 50s at school...was traumatic, and scary for kids*”.

Participants emphasised the need for community support and education on vaccination, noting that trust in familiar local people administering vaccines builds confidence; “*[It] makes it easier and helps a lot if you are vaccinated by people you know, mob, cousins...*”. They highlighted respect for individual choice and valued informed decision-making, as “*deciding for themselves is important for some people now*”. Concerns were raised about parental refusal to vaccinate children, with some parents in their community opting to let children decide for themselves; “*parents...now [are] not vaccinating children as they feel they want the child to decide if they want to be vaccinated or not.*”

Participants spoke about the crucial role of Aboriginal women in facilitating vaccination for children and the influence of cultural factors on vaccination attitudes: “*Aboriginal women are the backbone of the family*” and “*are often the ones who take the children to get immunised*”.

Personal and family experiences strongly influence vaccination decisions. For instance, one participant described how a family member’s refusal of a COVID19 vaccination led to over 30 relatives refusing vaccination. Although not widely discussed, some participants noted that religious beliefs, especially in some Aboriginal communities affected by a “missionary-style” upbringing, may also contribute to vaccine hesitancy.

4. Access and logistics

Ongoing accessibility and logistical barriers to vaccination were identified in all workshops. Transport was raised by several participants as a barrier to getting to and from appointments. Health service barriers were identified, with a participant stating a lack of vaccine stock availability was “*an issue for not getting vaccinated on time, and families having to go back to the health clinic again to get*

[their] vaccinations”. Being unable to see a doctor and long appointment waitlists were common experiences, affecting timely vaccination. Cultural safety was discussed, with one participant stating that health services should “*make the space less traumatising*” and consider ways to deliver vaccines in a way that everyone can walk away with a positive vaccination experience.

5. Communication and connection

Participants discussed the promotion and distribution of COVID19 vaccination, emphasising the need for positive, trust-based, culturally appropriate vaccine conversations with Aboriginal people. They stressed the importance of openness, noting that respecting individual concerns and asking permission to discuss sensitive topics are essential components for culturally appropriate conversations.

Family, self-protection and cultural safety were seen as critical in vaccine conversations, particularly in small rural communities. Participants highlighted the challenges AHWs face in maintaining positive relationships whilst navigating difficult conversations. One suggestion was for AHWs to focus on providing accurate information and addressing barriers, whereas another health professional could handle the more challenging discussions.

“keep that relationship and not alienate the other person, [by] getting another person to play the hard line/strong conversation with them about the vaccination, and [AHW] be the ally”.

Following the video role plays, participants discussed positive ways for vaccine conversations and pointed to the importance of connection and talking about the potential impacts on Aboriginal people if choosing not to get vaccinated. Participants identified key strategies as being important when engaging in conversations about vaccinations.

“share information and be open to what you know and what you don’t know”; “two-way listening” and “offer practical help”; acknowledge the other persons concerns; and “build in connection and belonging” into the conversation.

Post-survey results

Of the 70 participants, 41 (59%) completed a post-workshop survey. All were satisfied with the workshop [31 “very satisfied” (77.5%) and 9 “somewhat satisfied” (22.5%) with 1 missing data]. The majority of those who responded (78%; n=32) were more confident in their ability to talk about the risks and benefits of COVID19 and other vaccines to others; 80% (n=33) felt more confident to find appropriate resources on COVID19 and other vaccination information; 80% (n=33) rated the length of the workshops as “just right”; 75% (n=30) were “very satisfied” with the quality of the presenters and 68% (n=26) stated the workshop was relevant for their work.

From the content analysis of comments, the following the top three aspects participants liked about the workshop:

- 1) Information was delivered in a **clear and concise way** which was **easy to understand**.
- 2) **Interactive and engaging** methods through use of bingo and role plays that were culturally informed.
- 3) Content and topic presented a **wide range of immunisation information**.

Post-workshop yarns

We yarned with eight participants who all identified as Aboriginal, including an Elder, health and non-health workers and managers, who are strongly connected to their local Aboriginal communities and have cultural responsibilities beyond their work roles (Table 1). Yarns ranged from 30 to 60 minutes. Participants commented on the following:

- **Workshop design, content and format**

Participants appreciated the workshops for offering collaborative and networking opportunities. One participant described it as the “best workshop” because of its team approach, comfortable environment and welcoming atmosphere, “[I felt] really comfortable, [and the] experts working closely together... [there was] respect for everyone in the room and welcoming”.

Workshop activities were valued for being entertaining and reflecting “real-life conversations to show what a good conversation about COVID” looks like. Participants attending the virtual sessions said that online engagement went well and highlighted that having “known and trusted people presenting made it easier for people to engage in discussions”. Having local trusted Aboriginal people leading the workshops and other public health experts present the information was an important part of the workshops.

“To get information in verbal from experts, and accurate and relevant information around statistics, and evidence was really good way to learn information, as opposed to constant emails”.

An Elder said that the presenters were helpful and funny at times.

“Murri (Aboriginal) people like to have a laugh, [but] we could understand what they were talking about, [and] how important it was to have the vaccines”.

Participants found the information “wasn’t too clinical” and was easy to understand. One participant shared they “learnt a lot as a clinician, about how to provide education and support key people in the community about benefits, and when people are reluctant [how to] to reduce fear or understanding”.

In post-workshop yarns, participants strongly supported the development of a statewide training package. Suggested future topics included the need for vaccine data relevant to Aboriginal communities, especially in rural areas with low vaccination rates and historical distrust of services. Preferences for the workshop format varied, with some favouring face-to-face interactions for better engagement, whereas others appreciated the convenience of online options.

- **Suggestions for improvement**

Participants suggested shortening online sessions, modifying role plays to ensure clear conversation styles, focussing on key diseases and holding face-to-face workshops in community venues with transport support. They also recommended targeting workshops to areas with high Aboriginal populations and engaging young people. Involving trusted local frontline Aboriginal workers was seen as crucial to enhancing community engagement; “having someone in the community...that the community trusts...information gets across better then, and community listens...”. Additionally, participants expressed that future workshops should target community members who need the information most; “the people who were there wanted to know more about it, not sure if we were targeting the community members who need to know more about it”.

- **Applied learning from the workshops**

Many participants applied lessons in their roles, including addressing client’s concerns about vaccines and suggesting vaccination without pressuring.

“In the health checks that I do, some refuse to get them (vaccines)—sometimes I go fair enough bruz, but sometimes I will say you are better off getting the vaccine cause it’s better than the diseases you might get down the track. I feel more comfortable now telling the old fellas now...” (Aboriginal Health Practitioner).

An Elder shared how they encouraged others to get vaccinated and discussed vaccines such as shingles; “I tell people to have all the COVID19 shots and encourage them to ask the doctor about it”.

Another participant applied workshop principles in their health worker role, emphasising the importance of alleviating patient fears, saying it’s important to make “them feel comfortable and not scared, make them laugh. Good to be casual, that’s what makes them comfortable” (AHW).

- **Suggestions for future training toolkit**

Participants highlighted the crucial role of local Aboriginal and non-Indigenous health workers, recommending they have access to ongoing immunisation education and training to have supportive vaccine conversations. The train-the-trainer model was suggested to enable local AHWs to deliver future workshops.

“Information was...very clear and is why the train the trainer would work very well. [The] presentation was based on evidence [and] would be very easy to run and for Aboriginal Health Workers to run in their communities”.

To ensure sustainability of a vaccine conversation training toolkit, participants suggested key elements include adaptable content, accurate and timely information, both hard copy and online resources, as shown in (Box 1). Participants stressed the importance of “having local people who staff, stakeholders [and] community know and trust within the local context”. One participant stated that although “all vaccination information is important, COVID19 remains a critical thing that has to be resourced well”. Participants mentioned the lack of “the right resources to match the demand”, which makes it hard to “do things properly”. Participants emphasised the importance of leadership for immunisation programs “needs to be from top-down...not just a role of the...immunizers...” and that immunisation programs should remain a priority to support communities to get vaccinated.

Limitations

Not all participants completed the post-workshop survey or contributed to the post-workshop yarning, which may have distorted the finding of this research. Whilst diverse voices were included, they do not represent all participants. Some may have shared only “positive” feedback, given that the Aboriginal researchers conducting the yarning sessions also designed and facilitated the workshops. However, we believe participants felt comfortable enough to provide honest feedback during all phases of the project including anonymous surveys. These results reflect workshop participants’ perspectives but may not represent the views of the wider community such as Aboriginal and Torres Strait Islander community members who decline vaccination.

Box 1. Suggestions for training toolkit.**Health Worker training:**

- Use existing training frameworks such as train the trainer to build the skills and knowledge of health workers to deliver the workshops in their communities that is delivered face to face or virtual.

Training package:

- *Content:* should include comprehensive vaccine information, immunisation and safety awareness, vaccination data, conversation video role plays, videos of immunisation nurses sharing their vaccination experiences and interactive activities to engage participants.
- *Online access:* to learning modules and workshop package toolkit (such as presentations, videos, recordings and resources). Yearly refresher training should be encouraged by managers as part of ongoing professional development and training.

Information and Resources:

- *Information* available through an accessible online platform (hub) with links to existing resources, including Aboriginal-specific resources, such as FAQs on vaccine safety, and conversation tools to assist health workers in having supportive vaccination conversations.
- *Resources for health workers:* include a toolkit for health workers to access online and hard copy resources, such as conversation tools, flipcharts, posters and pamphlets, that can be used as visual tools to support vaccine conversations, as well as health workers access to immunisation recall systems to help with follow-up of due and overdue vaccinations.
- *Resources for community to support vaccine uptake* include an electronic app that can be used for all ages, such as the NSW Health “Save the Date to Vaccinate” app for children, a community member information pack about vaccines and the development of a hard-copy diary for people without smartphone devices to record when they are due for their vaccinations.

Flexible Workshop Delivery:

- *Face-to-face and online options:* involve local community members and leaders in face-to-face workshops for deeper engagement and support the option for online workshops to enable remote participation. For example, workshops such as “Keeping Mob Safe: Yarning about Vaccinations” could be delivered face-to-face or virtually by health staff to deliver local workshops and provide greater reach for participation.

Connection and collaboration:

- *Embed time for more yarning* throughout the workshops to enable participants to connect and identify ways to collaborate and engage with health workers more broadly on various health conditions.
- *Collaborate with key partners and stakeholders* including Aboriginal Medical Services, local health and non-health organisations, and trusted community members to plan and deliver vaccine workshops as well as sharing resources to overcome logistical barriers, such as workshop venue and transportation, to improve community participation and networking between agencies.

Discussion

The “Keeping Mob Safe: Yarning about vaccination” workshops enabled two-way learning, allowing the research team to share vaccination information whilst listening to participants’ perspectives and concerns about vaccination. Guided by PAR and decolonising research approaches, yarning with Aboriginal participants not only captured participants’ knowledge and attitudes about vaccines but also provided insights into their lived experiences of immunisation and the healthcare system. This culturally informed approach allowed themes to emerge that might have been overlooked by western research methods alone.

Yarning revealed complex factors influencing vaccination attitudes and uptake, including misinformation, fears, cultural and community considerations and access challenges. Barriers such as limited general practitioner access, vaccine availability, transport, cultural safety and lack of information and education, align with findings from other studies.^{4,5,33} Yarning also highlighted ongoing systemic issues, including mistrust in government and health services, showing the complexity of vaccination decisions. This in depth, culturally

contextual data can only be collected through research methods aligned with Aboriginal and Torres Strait Islander principles.

Addressing these findings requires targeted, locally tailored strategies that consider the diversity of Aboriginal and Torres Strait Islander people’s experiences.¹² Participants emphasised the need for a connected Aboriginal health workforce to lead programs, with ongoing education and sustained investment in immunisation programs. There was strong support for the rollout of vaccine conversation programs, similar to other initiatives,²⁰ and using a train-the-trainer model which could be evaluated for broader impact.

Key workshop strengths included being Aboriginal-led and being delivered by trusted health professionals using easy-to-understand language. Participants valued the way information was presented, enabling informed decision-making and potentially reducing generational fears and mistrust of government and health services.³⁴ Some noted that the government’s COVID19 vaccine rollout messaging caused confusion, although it is unclear whether vaccine hesitancy or poor communication contributed more to public mistrust.^{4,20}

The workshops offered a culturally safe environment for participants to discuss concerns and barriers, with methods valuable and adaptable for future service delivery and research. Findings suggest this model, being Aboriginal-informed and grounded in PAR and decolonising methodologies, effectively addresses vaccine hesitancy and may be applied to broader health issues and other settings, emphasising community engagement, trust and empowerment.

Conclusion

This study demonstrates that culturally tailored programs led by Aboriginal and Torres Strait Islander people can enhance vaccine knowledge and confidence, empowering service providers and community members to have supportive vaccine conversations with Aboriginal and Torres Strait Islander people. Addressing vaccine hesitancy through culturally considered and sensitive approaches, such as the adapted model used in our study, has the potential to build resilience against threats to public confidence, such as anti-vaccine campaigns and misinformation, contributing to improved vaccine uptake.

Sustained efforts are needed to build trust, deliver accurate and timely information, and promote vaccine acceptance in Aboriginal and Torres Strait Islander communities. These efforts are crucial for achieving equitable immunisation outcomes. Health services can and must do better to improve vaccine equity for Aboriginal and Torres Strait Islander peoples.

Immunisation programs should involve everyone, with adequate resources and support for community workshops led by Aboriginal and Torres Strait Islander people.^{1,19,35}

Ethics approval

Ethics was approved by the New South Wales Aboriginal Health and Medical Research Council Ethics Committee (ref 2162/23) and the Hunter New England Local Health District Ethics Committee (ref 2023/STE03079).

Data availability statement

Data are available on reasonable request. Data-sharing protocols are underpinned by Indigenous Data Sovereignty principles. Data include materials from vaccine conversation workshops and from the yarns; therefore, data may be available under reasonable request; however, it will require community and Aboriginal Governance Group permission.

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Conflicts of interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Julie Leask reports a relationship with National Health and Medical Research Council that includes funding grants. Julie Leask reports a relationship with Sanofi Pasteur Inc. that includes travel reimbursement. If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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References

1. NSW Ministry of Health. *NSW immunisation strategy 2024-2028*. 2024. p. 3. Sydney NSW.
2. Australian Institute of Health and Welfare. *The burden of vaccine preventable diseases in Australia*. 2019. Canberra.
3. Brynley Hull AH, Dey Aditi, Brotherton Julia, Macartney Kristine, Beard Frank. *Annual immunisation coverage report 2022*. 2023. Sydney.
4. Graham S, Blaxland M, Bolt R, Beadman M, Gardner K, Martin K, et al. Aboriginal peoples' perspectives about COVID-19 vaccines and motivations to seek vaccination: a qualitative study. *BMJ Glob Health* 2022;7(7):e008815.
5. Bolsewicz K, Thomas J, Corben P, Thomas S, Tudball J, Fernando M. 'Immunisation, I haven't had a problem, but once again the transport, making an appointment, the time that you waste and all of those things are an issue'—understanding childhood under-immunisation in Mid North Coast New South Wales, Australia. *Aust J Rural Health* 2022;30(1):44–54.
6. Paradies Y. Colonisation, racism and Indigenous health. *J Popul Res* 2016;33(1):83–96.
7. Laurie L, Lambert SB, Jones L, Boddy G, O'Grady KAF. Influenza and pertussis vaccine uptake during pregnancy among Australian women in south-east Queensland, Australia. *Aust N Z J Publ Health* 2021;45(5):443–8.
8. Tuckerman J, Crawford NW, Marshall HS. Disparities in parental awareness of children's seasonal influenza vaccination recommendations and influencers of vaccination. *PLoS One* 2020;15(4):e0230425.
9. Menzies R, Aqel J, Abdi I, Joseph T, Seale H, Nathan S. Why is influenza vaccine uptake so low among Aboriginal adults? *Aust N Z J Publ Health* 2020;44(4):279–83.
10. Crooks K, Taylor K, Burns K, Campbell S, Degeling C, Williams J, et al. Having a real say: findings from first nations community panels on pandemic influenza vaccine distribution. *BMC Publ Health* 2023;23(1):2377.
11. McHugh L, Crooks K, Creighton A, Binks M, Andrews RM. Safety, equity and monitoring: a review of the gaps in maternal vaccination strategies for Aboriginal and Torres Strait Islander women. *Hum Vaccines Immunother* 2020;16(2):371–6.
12. Tinessia A, King C, Randell M, Leask J. *The effectiveness of strategies to address vaccine hesitancy in Aboriginal and Torres Strait Islander peoples Sydney2022* [Available from: https://www.saxinstitute.org.au/wp-content/uploads/22.04_Evidence-Snapshot_The-effectiveness-of-strategies-to-address-vaccine-hesitancy-in-ATSI-peoples.pdf].
13. World Health Organization. *Behavioural and social drivers of vaccination: tools and practical guidance for achieving high uptake*. 2022.
14. Gilmore B, Ndejjo R, Tchetchia A, de Claro V, Mago E, Lopes C, et al. Community engagement for COVID-19 prevention and control: a rapid evidence synthesis. *BMJ Glob Health* 2020;5(10):e003188.
15. Fu LY, Haimowitz R, Thompson D. Community members trusted by African American parents for vaccine advice. *Hum Vaccines Immunother* 2019;15(7–8):1715–22.
16. Kaufman J, Overmars I, Leask J, Seale H, Chisholm M, Hart J, et al. Vaccine champions training program: empowering community leaders to advocate for COVID-19 vaccines. *Vaccines* 2022;10(11):1893.
17. Dutta T, Agley J, Meyerson BE, Barnes PA, Sherwood-Laughlin C, Nicholson-Crotty J. Perceived enablers and barriers of community engagement for vaccination in India: using socioecological analysis. *PLoS One* 2021;16(6):e0253318.
18. Baltzell K, Harvard K, Hanley M, Gosling R, Chen I. What is community engagement and how can it drive malaria elimination? Case studies and stakeholder interviews. *Malar J* 2019;18:1–11.

19. Australian Department of Health. *National immunisation strategy for Australia 2019-2024*. 2018. Canberra.
20. Cashman PM, Allan NA, Clark KK, Butler MT, Massey PD, Durrheim DN. Closing the gap in Australian Aboriginal infant immunisation rates—the development and review of a pre-call strategy. *BMC Publ Health* 2016;**16**:1–7.
21. Australian Department of Health and Aged Care. *First Nations COVID-19 vaccination coverage reports*. Canberra. 2024. Contract No.: 22 May 2024.
22. Centre for Epidemiology and Evidence HealthStats NSW. *Population estimates aboriginality by local health districts NSW Sydney2024* [Available from: <https://www.healthstats.nsw.gov.au/r/113303>].
23. Kennedy M, Maddox R, Booth K, Maidment S, Chamberlain C, Bessarab D. Decolonising qualitative research with respectful, reciprocal, and responsible research practice: a narrative review of the application of Yarning method in qualitative Aboriginal and Torres Strait Islander health research. *Int J Equity Health* 2022;**21**(1):134.
24. Chilisa B. *Indigenous research methodologies*. Sage publications; 2019.
25. Walter M, Suina M. Indigenous data, indigenous methodologies and indigenous data sovereignty. In: *Educational research practice in southern contexts*. Routledge; 2023. p. 207–20.
26. Evans M, Miller A, Hutchinson P, Dingwall C. Decolonizing research practice: indigenous methodologies, aboriginal methods, and knowledge/knowing. *The Oxford handbook of qualitative research* 2014;**179**.
27. National Centre for Immunisation Research and Surveillance Australia. Example of a supportive flu vaccine yarn. Sydney: ; [Available from: <https://skai.org.au/healthcare-professionals/example-supportive-flu-vaccine-yarn>].
28. World Health Organisation. *Covid-19 vaccines: safety surveillance manual COVID-19 Vaccine safety communication*. Geneva: World Health Organisation; 2020.
29. Bessarab D, Ng'Andu B. Yarning about yarning as a legitimate method in Indigenous research. *International Journal of Critical Indigenous Studies* 2010;**3**(1):37–50.
30. Bailey J. First steps in qualitative data analysis: transcribing. *Fam Pract* 2008;**25**(2):127–31.
31. Tuhiwai Smith L. *Decolonizing methodologies: research and indigenous peoples*. Zed books; 2012.
32. Wilson S. *Research is ceremony: indigenous research methods*. Fernwood publishing; 2020.
33. Driedger SM, Capurro G, Tustin J, Jardine CG. "I won't be a Guinea pig": rethinking public health communication and vaccine hesitancy in the context of COVID-19. *Vaccine* 2023;**41**(1):1–4.
34. Bajos N, Spire A, Silberzan L, Sireyjol A, Jusot F, Meyer L, et al. When lack of trust in the government and in scientists reinforces social inequalities in vaccination against COVID-19. *Front Public Health* 2022;**10**.
35. Australian Department of Health. *National aboriginal and Torres Strait Islander health plan 2021-2031*. 2021. Canberra.