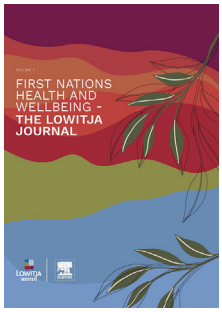

Original Research

Cultural governance is vital for quality improvement in Aboriginal and Torres Strait Islander primary healthcare

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Abstract

Purpose Considerable published work in continuous quality improvement (CQI) in First Nations primary healthcare indicates the importance of accessible data and a stable and prepared workforce. However, little has been published from a First Nations-led perspective about what factors are important in improving quality in care provided.

Methods This participatory largely qualitative project involved a learning community with members from eight primary healthcare services serving First Nations communities, peak bodies, academics and other partners. It featured 140 interviews with health service staff, managers and community members. All data were collected, thematically analysed and interpreted by members of the learning community.

Main findings Analysis of Leveraging Effective Ambulatory Practice (LEAP) project data from talking to community and health service providers and from learning community meetings revealed important facilitators of quality improvement, understandings of quality and some of the challenges encountered. A key principle that underpinned all themes was 'working culture way', termed here as 'our ways of working'. Other interwoven big ideas that participating services felt helped overcome challenges in implementing

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CQI included: workforce innovations to strengthen continuity and trust, accessible CQI data, cultural safety and place-based approaches, and making space for two-way learning with community.

Principal conclusions Cultural governance of health services and quality improvement efforts are vital for success, and the centrality of cultural ways of working is paramount in these findings. In addition, these findings emphasise the importance of: i) recruitment, training on-Country and then support of a strong and valued Aboriginal and Torres Strait Islander health worker and practitioner workforce; ii) valuing the impact of this stable workforce in terms of relational continuity and trust (both directly and through supporting the stability and thus communication and trust of the non-Indigenous workforce); and iii) understanding how best to work with communities in addressing these issues.

Keywords: First Nations health and wellbeing; Cultural governance; Primary healthcare; Continuous quality improvement; Two-way learning; Participatory methodology

Highlights

- Culturally driven ways of working are critical for driving quality in primary healthcare.
- A strong, stable First Nations health workforce delivers relational continuity and trust.
- The First Nations workforce requires nurturing, innovation and training on Country.
- Cultural governance of health services is a neglected element of quality improvement.
- This facilitates two-way learning with communities and integrated care.

Introduction

Improving the quality of primary healthcare for Aboriginal and Torres Strait Islander peoples is supported by years of dedicated work on implementing continuous quality improvement (CQI) in primary healthcare (PHC) services (NACCHO 2018). A group of Aboriginal and Torres Strait Islander PHC services, health government agencies, academics and PHC professions have been working together in a CQI health services research collaboration (Bailie et al. 2010; Schierhout et al. 2013). Over time, progress has been made in Aboriginal and Torres Strait Islander PHC services in improving the adherence to clinical practice guidelines in maternal and child health (Gibson-Helm et al. 2015), rheumatic heart disease (Ralph et al. 2013) and lifestyle counselling in preventative health services (Si et al. 2007). There have also been improvements in intermediate health outcomes in chronic illness (Bailie et al. 2007) and more recently in preventive care (NACCHO 2018). More recently, the broader literature has moved from consideration of adherence to clinical practice guidelines to a broader focus on co-design of implementation strategies to optimise uptake (NACCHO 2018; Knapp et al. 2022).

Continuous quality improvement in Aboriginal and Torres Strait Islander PHC research and practice is expanding in line with Aboriginal and Torres Strait Islander holistic notions of health that incorporate mind, body, spirit, family and community (Matthews 2022; Turner et al. 2019). This way of working is a crucial factor in delivering high-quality PHC, as evidenced through a sequence of work that included two multi-jurisdictional projects (Lessons from the

Best and Leveraging Effective Ambulatory Practice [LEAP]) (Carlisle et al. 2021; Larkins et al. 2019; Redman-MacLaren et al. 2021). This work enabled understanding that a service embedded in local culture is foundational to the delivery of high quality PHC (Turner et al. 2019).

Lessons from the Best (2014–17) was an observational multiple case study project conducted in partnership with six Aboriginal and Torres Strait Islander PHC services that had demonstrated continuous high improvement across service areas, such as chronic illness care and maternal and child healthcare. Contextual factors that might affect the response to improvement initiatives – such as service accreditation status, location and size, finding a lack of statistically significant associations between these factors and performance improvement – were examined (Larkins et al. 2015). Better knowledge about the reasons for the variation in patterns of performance in services over time was also sought (Larkins et al. 2015).

Rich qualitative data from staff and community interviews found novel themes likely to be associated with improvement: service embeddedness in the local cultural and historical context, two-way learning about CQI, and the community 'driving' health improvement (Larkins et al. 2019). The understanding that caring staff engendered trusting relationships with community enacted through respect was also a key finding from Lessons from the Best (Turner et al. 2019). It provided insights into possible 'secrets of success' underlying consistent improvements in PHC delivery (Larkins et al. 2015). Conversely, the current study also wanted to examine the factors that may prevent PHC services from achieving their CQI goals. The LEAP project partnered with eight self-nominated Aboriginal and Torres Strait Islander PHC services to further understand CQI implementation challenges and how these may be overcome (Gardner et al. 2018).

International studies have found that enablers of CQI in PHC include: dedicated time for quality improvement; mentorship; coaching; and a professional quality improvement network, as well as sound identification of problems that needed to be fixed (Shaikh et al. 2020). Limitations to CQI found in studies conducted in Ghana (Singh et al. 2016), South Africa (Yapa Dhlomo-Mphatswe et al. 2022) and Uganda (Tibeihaho et al. 2021) included limited leadership provided at the district health management level, workforce turnover, and that CQI needed to be 'normalised' and embedded in health systems.

To assist in the process of implementing quality initiatives, a knowledge co-production model was proposed to bring together partners with different sources of knowledge (Vindrola-Padros et al. 2019). Vindrola-Padros and colleagues (2019) reported on improvement projects with researchers 'embedded' in the health service to facilitate this knowledge transfer, demonstrating benefits from bridging the gaps between health services and research groups, and confirming the relevance (but also challenges) in providing practical help to implement quality improvement.

Returning to the Australian context there is an established evidence base of barriers and enablers to CQI in Aboriginal and Torres Strait Islander PHC services, although it is not always from an Aboriginal and Torres Strait Islander perspective. In their systematic review, Gardner et al. (2018) found that implementation challenges at a systems level were: high staff turnover; difficulty in incorporating the plan, do, study and act cycles into practice; and time limitations. At the individual level, resistance to change

and limited understanding of the value of CQI were described barriers (Gardner et al., 2018). The enablers were found to be: support from health service managers and regional CQI facilitators, improved access to clinical data, and allocation of time and resources for staff to participate in CQI (Gardner et al. 2018).

Whether factors that were found to be important in Lessons from the Best were included in frequently used implementation research frameworks in PHC quality improvement work was explored, and nine frameworks were found that were of importance to high levels of continuous improvement in Aboriginal and Torres Strait Islander PHC (Redman-MacLaren et al. 2021). The domains described in these frameworks were broadly compatible with elements found in Lessons from the Best. However, the novel themes found in Lessons from the Best – two-way learning, communities driving health improvement and integrating cultural knowledge into healthcare provision – were rarely considered.

This paper presents key findings and learnings from services of the LEAP project to explore: i) quality improvement in complex PHC systems (Adily et al. 2020); ii) how quality improvement might be influenced by contextual factors (Carlisle et al. 2021); and iii) what implementation challenges are encountered (Gardner et al. 2018). From these data, emerging from services and communities, key findings were connected to assist other PHC clinics, particularly those servicing Aboriginal and Torres Strait Islander communities, to optimise their CQI responses.

Methods

To explore the key implementation challenges for quality improvement faced by participating Aboriginal and Torres Strait Islander PHC services, multiple data sources were collected throughout the project. As previously described (Carlisle et al. 2021), the project partnered with eight self-selected PHC services and communities representing a diversity of geographical locations, rurality, service size, community contexts and governance models (Table 1). The Aboriginal and Torres Strait Islander PHC services were located across Queensland (Qld), the Northern Territory (NT) and Western Australia (WA); five were community-controlled and three were government services (Panaretto et al. 2014). All eight services, along with health government agencies, regional primary health networks and community-controlled health sector agencies formed a 'learning community', meeting monthly throughout the life of the project. Qualitative collected data consisted of: i) semi-structured interviews with service staff and service users conducted via site visits during 2018–19, and online 2021–22 due to COVID-19 travel restrictions (n = 140; Table 2); ii) learning community meeting records, as online group meetings (n = 37) and face-to-face workshops (n = 2); and iii) project communication log records.

Data were collected and analysed by research team members, always working in pairs with at least one Aboriginal and/or Torres Strait Islander researcher. This approach was taken to help ensure that all stages of data collection and analysis were informed by an Indigenous worldview. The interview guide for service managers and clinic staff is provided in the Supplementary material. Most interviews were conducted face-to-face and digitally recorded, and online interviews and meetings (conducted in this format due to the COVID-19 pandemic) were recorded using the built-in recording functionality in the Zoom videoconferencing platform. Interviews varied in length and were sometimes interrupted by clinical demands, but most were between 30 to 40 minutes. Interviews

Health service	Governance	State	Rurality (AGSC)	Population	% of Aboriginal and/or Torres Strait Islander population[a]
PHC service 1	Government operated	Qld	Very remote	1,000–10,000	82.4
PHC service 2	ACCHS	Qld	Regional	>100,000 (service population approx. 9,000)	7.9
PHC service 3	ACCHS	Qld	Very remote	1,000–10,000	12.7
PHC service 4	ACCHS	NT	Very remote	<1,000	94
PHC service 5	Government operated	NT	Very remote	<1,000	88.6
PHC service 6	ACCHS	NT	Very remote	<1,000	89.3
PHC service 7	Government operated	NT	Remote	<1,000	81.6
PHC service 8	ACCHS	WA	Very remote	1,000–10,000	Approx. 90%

ACCHS, Aboriginal community-controlled health service; Qld, Queensland; NT, Northern Territory; WA, Western Australia. [a]ABS 2016 and 2021 census data.

Table 1: Participating Aboriginal and Torres Strait Islander primary healthcare (PHC) service characteristics (adapted from Carlisle 2021)

were transcribed verbatim and inductively analysed using NVivo 13 (QSR International) software. Analysis comprised two stages. Initial codes were identified and reviewed by two research team members, then detailed coding was completed by six team members. The second stage of analysis involved an in-person collective workshop of 10 research team members who conducted joint analysis and interpretation for the development and collective understanding of the key themes. Interview transcripts, research team members' field notes, recorded communications and meeting minutes were used in the development of the service's 'improvement story'; a synthesis of contextual information, qualitative data and audit results for that particular service. These were shared with each PHC service for their additional input and verification of the information before finalisation to help ensure accuracy. The final two-part improvement story reports for each service were analysed alongside interview data using NVivo. Broad themes across each PHC service story were discussed within and interpreted by the learning community.

This study followed the NHMRC Values and Guidelines for Aboriginal and Torres Strait Islander Health Research. Human research ethics approval was

Health service	Health service staff	Community/health service user*	Aboriginal and/or Torres Strait Islander	Non-Indigenous	Female	Male	Total
PHC service 1	12	3	11	4	13	2	15
PHC service 2	19	5	18	5	16	7	23
PHC service 3	17	17	32	3	24	11	35
PHC service 4	12	2	10	4	9	5	14
PHC service 5	9	0	4	5	4	5	9
PHC service 6	14	0	4	10	10	4	14
PHC service 7	7	2	6	3	6	3	9
PHC service 8	19	2	14	7	17	4	21
Total	109 (78%)	31 (22%)	99 (71%)	41 (29%)	99 (71%)	41 (29%)	140

PHC, primary healthcare. *Including board members.

Table 2: Characteristics of participants across the two phases of interviews

obtained from the Northern Territory Department of Health and Menzies School of Health Research (2018–3064), Western Australian Aboriginal Health Ethics Committee (884), Queensland Health (HREC/QCH/43490) and James Cook University (H7390). All participants, including those who contributed to interviews, focus groups, workshops and online meetings, provided informed written consent.

Results

Analysis of LEAP project data from talking to community and health service providers and from learning community meetings revealed important facilitators of quality improvement, some of the challenges encountered, and some aspects that were unable to be implemented within the project timeframe. A key principle that underpinned all themes was 'working culture way' termed here as 'our ways of working'. Other interwoven big ideas that participating services felt helped overcome challenges in implementing CQI included: workforce innovations to strengthen continuity and trust, accessible CQI data, cultural safety and making safe space (Figure 1).

The authors are mindful that from March 2020 there were widespread implications for PHC services during the COVID-19 pandemic. The partner services were all involved in providing information, health promotion and networking, ongoing healthcare, assistance during lockdowns, delivering immunisations, and the myriad of activities essential to caring for communities and keeping them safe. In responding to these challenges and in line with principles, contact with the participating services was sensitive and responsive to clinical priorities. At the peak of the pandemic, contact frequently needed to be rescheduled and some planned field trips needed to be converted to online gatherings due to travel restrictions. Qualitative data have been presented with an identifier of the participant category and a number representing the PHC service. Healthcare providers were identified as Indigenous (I) or non-Indigenous (NI).

Figure 1: Big ideas from Leveraging Effective Ambulatory Practice (LEAP)

Our ways of working

Aboriginal and Torres Strait Islander primary healthcare services being embedded in culture means working holistically, respectfully and reciprocally. These three interrelated aspects were described by the senior Aboriginal colleague and co-author Nalita Nungarrayi Turner as: providing holistic health that cares for mind, body and spirit; having respect for culture, community, the health service and each other; and obligations to give back to the community, including information about the health service that is easily accessible, including in language. These are implicit when people talk about cultural ways of working. One participant explained this: 'We care, and we don't just look at the person as the person, but we look outside the box and look at the person and the family, because we need to deal with all of them' (I healthcare provider 2). This theme underpinned and intersected with all the other themes, of cultural

safety or 'working culture ways', making space for two-way learning, making data accessible and workforce innovations.

The respect for culture shown by PHC services was described by participants in many ways. One service partner told us that 'We use culture and balance with *balanda* [non-Indigenous] ways to health' (I healthcare provider 4). Having staff who were a part of and understood culture was considered key to successful health outcomes. Non-Indigenous staff also recognised this, with one saying, 'I can't do my job without a health worker… You've got to have that local health worker there' (NI healthcare provider 5). The importance of speaking the local language was highlighted, as it builds relationship and trust. 'You make that connection with them… you can just see it in their face, you know. It's so different just the way they relate to you' (healthcare manager 7). Community members made a clear link between cultural ways of working and perceived quality of care, *'You know, like people love coming here. For one, they can sit down and have a yarn. So I guess it's… and the quality of care that our doctors and the nursing provide' (community service user 2).*

One service provider said: 'Elders of the Aboriginal and Torres Strait Islander communities, and other community members are employed [here] and act as boundary spanners between community and the health service' (NI healthcare provider 2). In this service, staff understood the cultures and translated culture to both Indigenous and non-Indigenous staff. One staff member reflected on this:

> *I think I'm pretty lucky in having the wealth of knowledge for culture that I have, you know… I'm both Aboriginal and Torres Strait so I have a good knowledge on both cultures. So, it's always in the back of your mind because it's been instilled since you were a kid: do it this way, don't do it the other ways*
> (I healthcare provider 2)

Respect for Elders is another element of the cultural way of working. An example of this is the care and recognition given to Elders, some of whom might have been involved in setting up the service: 'Yeah, we want the service to be the best we can… in respect to the Elders, there's some… that use the service. Some of them set up […] you know, what was it - 40 years ago?' (I healthcare provider 2). Another aspect is the comfort expressed by community members about being in the clinic setting: 'I feel comfortable because I sat with that lady that answers the phone. That's how well we know - I think being a small community too, it's really close knitted families' (community service user 1).

Another important element is providing consistent, clear and appropriate health information to community in language that everyone can understand and is respectful. This enhances awareness amongst community of health service provision and became very important during COVID-19: 'So we are using slightly different media things. Like when before [COVID-19] it was just sending out letters and emails and flyers and that sort of business' (healthcare manager 3).

There can be difficulties for this holistic way of working constrained by a PHC system not always conducive to patient-centred comprehensive care, for example:

> *The other thing is that earlier on in the LEAP you know we talked about looking at patients holistically rather than just looking at the problem they present, so if you think about a 20-minute consult and the patient is going through some traumatic things or in a crisis those waiting times will blow out significantly. And so*

that is the after-effect trying to catch up all day (I healthcare provider 2).

Cultural safety in practice

The recognition of cultural ways and putting them into practice to ensure a culturally safe environment was fundamental to implementing successful quality improvement in PHC services. Having the right staff who are a part of and understand culture was considered key to 'working culture way' and achieving successful health outcomes.

> *The first person I see is the health worker and that is good because of our culture. The health worker speaks Yolŋu and can help the doctors and nurses understand... The AHPs are trained practitioners and work in with the nurses* (community service user 4).

> *It's really professional. I always commend the staff when I go in there for the way they conduct themselves and their professional attitude... They're not judgemental, and that's good, because they have that understanding* (community service user 3).

To achieve this, cultural orientation training for new and visiting staff was a focused improvement activity across multiple services, specifically with the cultural knowledge coming directly from the community that the staff were working in. Suggested approaches to improving the understanding of working cultural way for new non-Indigenous staff included guided trips around the community, and ongoing formally recognised cultural mentoring being available to all non-Indigenous staff.

> *They do get some form of cultural backgrounding knowledge before nurses go out to the community. But see, our cultures are very different, our languages are very different. There are a lot of similarities but I think it should be a talk from someone from that area... It should actually come - derive from the community* (I healthcare provider 4).

It is critical that Aboriginal and Torres Strait Islander staff have a culturally safe workplace. A culturally safe workplace includes support for Aboriginal and Torres Strait Islander Health Workers and Practitioners (ATSIHWPs) to attend to their family business as required, as well as opportunities for training and professional development on- Country. An ATSIHWP at one service reported that non-Indigenous staff often met their family expectations by flying off the island the health service was located on. By contrast, ATSIHWPs had to navigate expectations of family who also lived on the island, along with their professional roles at the health centre: 'Aboriginal staff have huge pressures on them socially, culturally, emotionally, health, a whole range of factors' (I healthcare provider 4). These expectations can set up competing demands for ATSIHWPs and necessitate difficult choices between meeting family obligations and performing at work.

There seems to be some tension between cultural expectations and health service delivery, with non-Indigenous staff, for example, questioning priority of cultural protocol during Sorry Business over continuation of service delivery. For local Aboriginal staff, cultural practices and ceremony for the recently departed or other periods of grief and loss are non-negotiables. Hence, cultural training was viewed as essential, including both theoretical and practical training:

> *Cultural training has really reduced the conflicts with staff and community members... It is not enough – it needs um practical elements so the next stage is where we are appointing cultural advisors... that is why we are doing that training now of practical and theoretical* (healthcare manager 7).

Making space for two-way learning with community

There was recognition of the positive cycle that can be gained from an engaged and informed community, impacting on health staff having positive experiences, becoming more involved in the communities in which they work, and creating a more stable workforce:

> *People still do really enjoy working in* [community] *it is a bit hard but the reward of the community being so engaged and I guess there is a really rich culture in* [community] *that is appealing to come and work with as well as you know it is primary healthcare you are doing everything* (healthcare manager 7).

Service partners thought it important to make space for community and that this involved 'getting health out of the clinic' through holding public events, health days, screenings and health checks in the community. 'It was really good for community to get involved at [community event]... and that safe space, this is community space and having people come and help out' (I healthcare provider 8). 'Professional loitering' was a term used by a healthcare manager (5) to describe a method for non-Indigenous staff to get familiar with community issues through informal contact.

Another aspect of making space was seeking out information from the community, listening to community members, and getting their feedback about what was important to them. It was acknowledged though that this can be difficult. One participant commented: 'there are a lot of passionate people with different sort of agendas. So it's often difficult to assess what's really needed, rather than what a few vocal minorities want or expect' (healthcare manager 2). Another participant thought that the Elders should sit in with the goal setting activities in the health clinic. 'I'd rather all the Elders – you know, older people who have been here long enough, or longer, to sit in with the goal setting stuff for [service]' (healthcare manager 2). Language skills were also important to facilitate two-way learning: 'I think for staff to learn language is a top thing... I think it's a need – so then you have connection with the people there, so they build a connection with you...' (NI healthcare provider 5), and this was reflected by community members; '...They [AHWs] act as interpreters and put the community as their first priority' (community service user 4).

In one service, working in community and improving linkages was viewed as key to improving the health of people:

> *We like to work in with others hand to hand in closing the gap to the circle. With the baby hub and with childcare to close the gap. We go to the school and provide education to young women about puberty and changes in these bodies, give them information about menstruation and what to do when they get their period* (I healthcare provider 4).

Visibility of health workers outside of the clinic setting was also viewed as important to promoting two-way engagement:

> *Actually having health workers out and about, walking around the community, sitting down under a tree, sitting in a house, sitting on the doorstep and asking 'how are you going today?' Getting out in the community is important otherwise community members only see staff in their clinic role* (NI healthcare provider 6).

Talking with less engaged community members, those who did not attend the service frequently, was reported to be a challenge:

> *One of the key challenges to quality improvement for* [service name] *was engaging community members who were not regular attendees at the service and educating them about the importance of regular check-ups and the services that* [service name] *provides. Because one of our key things I think, is to empower or yarn to work out what can be done to increase their engagement with the service* (I healthcare manager 3).

Using different telephone and social media platforms to communicate with community members also help promote two-way engagement with community:

> *...we have taken on doing a lot more like electronic media things. Like I am forever SMSing the community now. So like this is on. This is happening, and that is going to be one of our mainstays to get word out* (I healthcare manager 3).

Making CQI data accessible

Participants in the study explained that improvements in their services were enabled by staff and community access to understandable and useful data. Services had overcome significant challenges in this process and some systemic issues were yet to be overcome:

> *When we started we didn't really have any access to data, proper data to see how we were tracking with a lot of our services or activities. Um now we can say that there has been a lot of improvement in that area... we like have this available every week for staff especially for the recalls and for other stuff or health checks.... I think that has been the biggest improvement for us here* (I healthcare provider 1).

Another participant explained why evolution in the way data was provided was important:

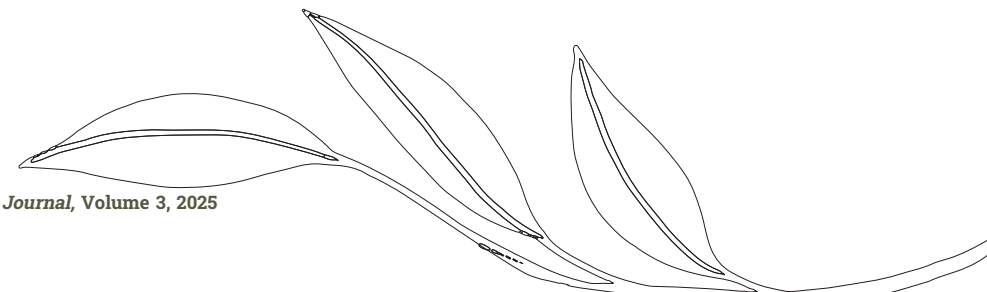
> *...it is useful for staff on the ground to see that data delivered in a different way... shifts the focus a little bit to not just look at the core concern or complaint that you have got that day to looking more broadly into the patient history and demographics. Keeping graphs that show that trend rather than showing this is what it is. It doesn't mean anything if you are just given numbers* (healthcare manager 6).

Giving access to health data is also perceived as important for community members:

> *So, then I suppose there is those KPIs - some chronic disease profiles giving the numbers and working out some kind of graphs or something that you can send back to community that is easy to read to see how we are doing* (healthcare manager 3).

Staff at PHC services showed an increased self-reflection and growth in maturity in the ways in which they participated in CQI cycles and were able to manage ongoing tensions between health service and community needs. Access to data for both staff and community was greatly assisted by work on the ground by networks and people with dedicated roles to assist, such as the CQI collaboratives through Aboriginal Medical Services Alliance Northern Territory in the NT. The benefits were that community people had an opportunity to think about health and healthcare differently. In the NT, service partners told us that networking regionally with other services and CQI facilitators is very important:

> *We work together a lot with them mob, and that's one of the things that we've done, like together between us and* [...] *yeah, they're really good days. Networking, team building days as well, you know, and then teaching us all about data as well, which is a good thing* (I healthcare provider 5).



Workforce innovations

Workforce challenges were ever-present in most services, especially in the context of COVID-19, with high turnover impacting on the ability of staff to form longer term relationships with the community and undertake consistent CQI cycles. This was particularly the case in more remote services. Despite the challenges, one area stood out as a strength, and this was having a strong Aboriginal and Torres Strait Islander workforce. Aboriginal and Torres Strait Islander healthcare workers and practitioners (ATSIHWPs; sometimes abbreviated by participants as AHW or AHP) are on the frontline of healthcare for their people. They are often the first point of contact and are motivated to improve the healthcare they provide, as one interviewee commented: 'Every day you're always just thinking, you know, how can we - how could I have done it better' (I healthcare provider 2). This is a commitment to quality improvement, although this commitment might not always be officially acknowledged or result in formal CQI processes.

ATSIHWPs are embedded within communities and have a deep understanding of local culture and needs: 'I know most of the people here, and it's just like they're walking in the door and you know straight away this person, they're here for meds' (I healthcare provider 1). Because of these relationships, ATSIHWPs face particular difficulties when they go home from work because the work does not stop. People in the community come to them for help: 'Being a local person, it's very hard to actually get that time away from work, because you've always got people coming around, knocking on the door' (I healthcare provider 7).

In addition, the Aboriginal and Torres Strait Islander workforce was reported to assist in the retention of non-Indigenous staff in primary healthcare settings: 'I know that in our communities where we do have AHPs there is a retention there for other staff when they come through because of the support and local knowledge of that AHP there' (healthcare manager 6). The support of ATSIHWPs enhances the quality of healthcare provided to community, likely through building good communication and trust, modelling and teaching cultural ways of working and promoting community engagement between community members and non-Indigenous staff. This cultural training and orientation can become burdensome for ATSIHWPs where there is high turnover of non-Indigenous staff.

Strengthening the Aboriginal and Torres Strait Islander health workforce was seen as a priority, with most service partners noting the need for more Aboriginal and Torres Strait Islander staff in both clinical and non-clinical roles. One service partner explained that non-Indigenous staff recognised that understanding the culture in which they worked was essential to healthcare: 'I can't do my job without a health worker – you have to have that local health worker there' (NI healthcare provider 6). Achieving cultural safety was a key reason. The more Aboriginal and Torres Strait Islander staff at a PHC service, the stronger the position of that organisation to 'work culture ways' and thus deliver effective health services. Non-Indigenous staff thought local Aboriginal staff were key enablers of delivering quality care: '...the local staff are enablers' (healthcare manager 4). While local staff were enablers in primary healthcare, the challenges in recruiting and supporting ATSIHWPs were considerable: 'We need more ATSIHW people trained. Employing and retaining local health practitioners, it's sort of trying to get that local recruitment has proved to be really difficult' (healthcare manager 6). An ATSIHWP explains '[family members] they was asking me how do you became AHP? I told them it's hard.

I mean, yeah, especially with the study and stuff like that thrown into it, it was hard' (I healthcare provider 4). At times we encountered misinformed, racist attitudes, for instance non-Indigenous health service staff questioning the interest of local Aboriginal and Torres Strait Islander peoples in education, and flippant responses to cultural protocols. There are many system level barriers for local community members to participate in education, with place-based learning for ATSIHWPs usually not available. Students must travel significant distances from home, with minimal support following changes in arrangements by registered training providers. If place-based learning was not possible, then learning with minimal disconnection from home (i.e. short blocks of time away from home community) was viewed as essential.

Options for overcoming workforce challenges were constantly being examined, with creative solutions discussed and implemented. Changes in the rostering system for nursing and medical staff were introduced by one service to reduce fatigue and introduce more flexible working arrangements making the service a more attractive place to work. While the ability to persist with these changes was reduced during the COVID-19 crisis, benefits were realised:

> ...so *we had some kind of retention* [with flexible working arrangements] *and we did have that for a period. I feel that the staff that were out there probably stuck around more than usual* [up to two years] *and even if it's a change from* [community name] *to another community they have still stuck with remote work* (healthcare manager 6).

Building a locum service specifically for the community-controlled health sector was promoted by another service partner. The locum service would include ATSIHWPs as well as GPs who are experienced and have the right skillset for working in Aboriginal and Torres Strait Islander communities: 'We need to build a locum [ATSIHWP] workforce and even of GPs so that we can send them to some other AMSs when they are in short supply' (healthcare manager 3). Another service partner noted improvements to telehealth were beneficial to clinical staff when staffing shortages meant there was no GP on the ground: 'So in spite of not having a doctor on the ground we will be able to do Zoom or Teams meetings with clients and that's been a huge... I have really enjoyed just being able to call a doctor whenever I needed someone' (NI healthcare provider 5).

The advent of telemedicine, largely in response to limited health workforce availability during COVID-19, had both positive and negative implications for the PHC workforce in this study. Health service staff, including ATSIHWPs, performed additional screening activities to prepare for telemedicine consults. This additional responsibility strengthened their role in PHC and assisted their clients but also added to their workload: 'Other requests for telehealth is another thing, like we really stretch our staff by attending to these things but only like for the wellbeing of our patients here' (I healthcare provider 1). Despite this additional workload for those in communities, the accessibility of GPs and other health professionals through telehealth has expanded healthcare availability.

Discussion

These findings highlight complex inter-relationships between culturally embedded approaches and ways of working, intersecting with access to appropriate data, an appropriately trained and stable PHC health

workforce (particularly Aboriginal and Torres Strait Islander staff), cultural safety, and prioritising two-way engagement and learning between community and clinic staff. The eight Aboriginal and Torres Strait Islander PHC services with whom the project partnered to explore how they overcame challenges to quality improvement were in diverse settings and environments. However, findings were convergent, jointly identified through active construction in a process of analysis and interpretation by a team of researchers and PHC partners and involving a majority of Aboriginal and Torres Strait Islander researchers and service providers.

Whilst the importance of data, workforce shortages and cultural safety have all been previously reported, the intersections in terms of impact on quality of care have not previously been elucidated. The importance of a strong and valued ATSIHWP workforce within a health service as a central plank or facilitator of all the other elements has been under-stated, and recent policy settings in most jurisdictions have actively undermined the current and future ATSIHWP workforce.

The following sections sequentially discuss the workforce implications of the big ideas from the LEAP study: culturally embedded approaches to care, timely access to appropriate data, cultural safety prioritising two-way engagement and learning, whilst outlining how supporting a strong and sustainable Aboriginal and Torres Strait Islander workforce provides the critical linkage supporting all these improvement strategies.

Culturally-safe, consistent and sustainable high-quality care

Trust between community members and healthcare providers is vital to a good therapeutic relationship and culturally secure healthcare (Smith et al. 2018), and integral to the themes of cultural safety and ways of working. Whilst good clinical governance is well-embedded as an essential pillar of quality care, this can be undermined by high staff turnover leading to poor continuity of care with real health impacts for local communities in terms of trust and cultural security and community willingness to access the health service for essential care (Smith et al. 2018). One well-known barrier to trust and quality PHC in regional and remote Indigenous communities is lack of stability in the health workforce, including ATSIHWPs, nurses, medical and allied health staff. Where there is a good balance of ATSIHWPs (who play a critical role in workforce stability) and culturally competent, committed non-Indigenous staff, this results in good health service delivery; many health services have a shortage of both (National Aboriginal and Torres Strait Islander Health Worker Association (NATSIHWA), 2019). Importantly, cultural safety needs to be two-way, with a balance between service delivery needs, cultural needs and responsibilities placed on Aboriginal and Torres Strait Islander health staff, appropriate training for non-Indigenous staff, and workforce support and career pathways for ATSIHWPs and other community-based health workers as outlined below.

This workforce turnover also impacts the broader health system, in terms of reduced availability of quality PHC, strain on remaining staff, reduced communication and efficiency through referral pathways and increased hospital admissions. For example, the NT has documented high annual turnover rates of 148% and 80% for remote area nurses and ATSIHWPs, respectively (Wakerman et al. 2019). Economic costs are substantial; one study suggests that halving the turnover of the health workforce has the potential to save the NT government around $32 million annually (Zhao et al. 2019). However, economic analyses account for only a portion of the impact, as they fail to include the

important trust, cultural security and relational requirements the current study identified as so critical in quality of care provision for Aboriginal and Torres Strait Islander peoples.

Timely accessibility to appropriate data for quality improvement

Quality improvement cannot happen without regular access to relevant data and an understanding of current strengths and challenges in service delivery and outcomes. In fact, accessible CQI data is one of eight key features of valued Aboriginal and Torres Strait Islander PHC services (Harfield et al. 2020).

There are many uses of appropriate health data presented in an accessible and timely manner. It may be used not only to improve health outcomes but also to meet the needs of each community through service evaluation to measure community health outcomes (Williams 2018), participating in quality improvement and research initiatives (Bailie et al. 2007), reporting on performance (Matthews et al. 2014), identifying clients who require a specific service, follow-up visits and client tracking (Adily et al. 2020), service planning and implementation (including by community-controlled health boards) (Panaretto et al. 2014), and service impact (Panaretto et al. 2005).

Quality improvement processes can be established with a focus on chronic conditions, monitoring health programs as well as management and follow-up care (Bonomi et al. 2002; Matthews et al. 2014; Ralph et al. 2016), and with community involvement in developing indicators that also focus on cultural aspects of care, traditional approaches and receiving care in language (NACCHO 2018). However, data are of little use without an informed and skilled-up local workforce that can engage with and make contextual sense of the data – the role of long term staff including ATSIHWPs and regional CQI support officers and facilitators may have a particularly important role here (Larkins et al. 2019).

Making space for two-way community engagement

Qualitative data from the LEAP project evidenced the importance placed by both local community members and local staff members on strengthening two-way community engagement between the PHC clinic and the community more broadly. Getting out and about and providing community-based clinics, and engaging door-to-door with community members in screening and the provision of health advice and education, were all perceived to be practical strategies to improve healthcare and strengthen relationships with the community. None of these outcomes are possible without a trusted ATSIHWP workforce. The LEAP project is not the first to recognise the importance of this engagement. Various models have been proposed to strengthen two-way engagement, with community health boards, a culturally-safe ATSIHWHP-led model of care where each health worker is responsible for the preventive health and wellbeing of one part of the community (Smith et al. 2018), and a range of community-based clinic models described in this project and the broader literature (Bodenheimer et al. 2014). Whilst traditional clinical governance might perceive these innovations as introducing a measure of risk to service delivery, when viewed through a cultural governance lens they are necessary in broadening access and delivering a high quality and safe service. Recent work on implementation frameworks used in Aboriginal and Torres Strait Islander primary healthcare has highlighted that these elements can be implicitly implemented rather than clearly and explicitly outlined, thus limiting the degree to which they are measured or evaluated (Redman-MacLaren et al. 2021).

The critical role of the Aboriginal and Torres Strait Islander health workforce in ensuring 'culture is central' to healthcare delivery

The retention of ATSIHWPs has recently been limited due to lack of support, role clarity and career pathways (Smith et al. 2018; Topp et al. 2018; Wright et al. 2019). Whilst general health workforce turnover is important, insufficient numbers of Aboriginal and Torres Strait Islander members of the health workforce are a particularly critical issue, caused by both inadequate recruitment and poor retention, largely due to burnout and institutional racism manifesting in inequitable professional recognition and reward compared with other PHC roles (Topp et al. 2022). ATSIHWPs have an important role in the PHC system (within both the community-controlled and government sectors) in creating a culturally secure environment that community members are comfortable to attend, ensuring that communication is clear and understood, and bridging the gap between clinic and community (National Aboriginal and Torres Strait Islander Health Worker Association (NATSIHWA), 2019). This boundary-spanner role is critical, yet results in high personal demands on the workforce (Topp et al. 2022).

The experience of regional and remote ATSIHWPs often includes stress and burnout due to workload, workforce instability, power imbalances, work/life pressure, under-recognition and undervaluing of the role, poor role definition, culturally insensitive colleagues, inequities in provision of practical support (including housing, and associated energy and communication service utilities) and limited access to development opportunities (Lai et al. 2018b). For example, ATSIHWPs in North Queensland (NQ) want recognition for generalist skills, as well as options to specialise in areas such as cultural liaison, health promotion and aspects of clinical service delivery (Topp et al. 2021). Over the past 15 years, jurisdictional and federal changes to ATSIHWP education and training governance have led to a move away from place-based apprenticeship-style training, and towards centralised, formal training programs with accreditation of providers. Structural issues must be addressed, such as a more equitable degree of in-community facilities, training and support for the ATSIHWP workforce, in line with their nursing and medical colleagues. Workforce strategies aimed at increasing ATSIHWP numbers will inevitably fail without attention to systemic barriers, such as institutional racism, power differentials and un/conscious biases undermining trust and effective teamwork (Bond et al. 2019).

Workforce and training innovation is needed to strengthen the ATSIHWP workforce

ATSIHWP shortages mean that critical opportunities for preventive health interventions and health promotion are missed (NATSIHWA 2019). Another negative consequence of ATSIHWP shortages is the missed opportunity to role model career options for community young people as they consider their post-school pathways (Bailey et al., 2020). Lack of clear career pathways and limited opportunities for on-Country training and upskilling have been identified as issues in the retention of young ATSIHWPs (Bailey et al., 2020; Felton-Busch et al. 2009).

Multiple service-level strategies have been identified to improve stability of the Aboriginal and Torres Strait Islander PHC workforce, including: culturally safe workplaces; collaborative team functioning; flexible roles and roster arrangements; strong, inclusive leadership; professional support and development (including career pathways for ATSIHWPs); and due recognition of the value of their profession (particularly through appropriate remuneration and provision of

accommodation) (Bailey et al., 2020; Deroy and Schutze 2019; Jongen et al. 2019; Lai et al. 2018a; Wakerman et al. 2019). However, implementation and evaluation of these strategies still lag.

System-level strategies to increase the number of Aboriginal and Torres Strait Islander doctors, nurses and allied health providers, and to integrate local Indigenous people into non-clinical roles (reception, driver, gardener) within a service are vitally important. An example is the Aboriginal Health Coach role being trialled in the NT. This community-level health promotion/education role is designed to bridge the gap between clinic and community. Despite strategies aiming to strengthen the Aboriginal and Torres Strait Islander health workforce, there has been minimal impact to date, and absolute declines in some areas, signalling a need to re-position perspectives on issues (and the implementation of solutions) within the realities of Aboriginal and Torres Strait Islander health workers and communities (Bond et al. 2019; Smith et al. 2018; Topp et al. 2018).

Strengths and limitations

The LEAP project had strengths in terms of a strong, well-integrated team of Aboriginal and Torres Strait Islander and non-Indigenous researchers working closely with eight diverse primary healthcare services from both the community-controlled and government sector over a period of some years. Methodologically, it strongly followed the principles of centring First Nations perspectives in the analysis and findings, and had a strong learning community guiding and informing the study.

It is recognised that there were limitations to this approach, in terms of the services that were worked with, that could limit generalisability and transferability of the findings and had limited interviews with grassroots community members, particularly impacted by the COVID-19 pandemic limiting field trips. However, the findings have a high degree of face validity across a wide range of services and communities, including those now engaged in the Working it Out Together! project.

Conclusion

Working 'culture way' with Aboriginal and Torres Strait Islander communities is a critical overarching factor in improving quality of care in primary healthcare services and dependent on a strong and stable Aboriginal and Torres Strait Islander health workforce. High PHC workforce turnover (both Aboriginal and Torres Strait Islander and non-Indigenous staff) in remote and rural areas is problematic for communities and their health services. Turnover undermines relational trust, cultural security and quality of care. While the economic and logistical costs of high health workforce turnover are well described, there has been limited research into implementation of culturally-safe models of care and contextually-informed strategies to improve workforce stability in complex PHC service systems. It is believed that there is a need to move beyond a risk-driven approach in clinical governance, towards a broader conceptualisation of cultural governance and what this means for quality of care.

Existing work about health workforce in terms of Aboriginal and Torres Strait Islander PHC, particularly in rural and remote areas, has had a strong focus on recruitment, turnover and retention of the non-Indigenous workforce, including the impact of this on quality healthcare and the economic costs. Some of the LEAP services and research team are working to address these questions through the Working it Out Together! project (GNT2006089) by trialling

community-led workforce development models in four different locations. These models will focus on building local community talent and building culturally safe visiting health workforces. Outcomes from these place-based workforce development models are expected in 2027. What is new and vital in the research presented here is the emphasis on: i) recruitment, training on Country and then support of a strong and valued ATSIHWP workforce; ii) valuing the impact of this stable workforce in terms of relational continuity and trust (both directly and through supporting the stability and thus communication and trust of the non-Indigenous workforce); and iii) understanding how best to work with communities in addressing these issues.

Author contributions

All authors were involved in conceptualisation, design, data collection, analysis and interpretation for this manuscript. J. Taylor, S. Larkins, V. Matthews, K. Carlisle and N. Nungarrayi Turner took the lead in drafting the manuscript. All authors read and approved the final manuscript.

Declaration of interests

Sarah Larkins and Veronica Matthews as co-Chief Investigators received NHMRC Partnership Grant GNT1148660 2017-2022 for this work. Veronica Matthews leads the CRE-STRIDE GNT1170882, of which LEAP was a key project. Nalita Nungarrayi Turner, Kristy Clancy and Talah Laurie were employed under NHMRC GNT1148660 for this work and report that financial support was provided by National Health and Medical Research Council. 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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Nalita Nungarrayi Turner is an Anmatyerre and Jaru woman from Central Australia who is an anthropologist and Research Fellow with the LEAP and Working it Out Together! project teams based in Darwin. Nalita is an active member of the CRE-STRIDE and ensures that our research is culturally grounded and based on two-way learning.

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Supplementary material

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