Health care provider perspectives on cervical screening for Aboriginal and Torres Strait Islander women: a qualitative study

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Abstract

Objective: To investigate perspectives of primary health care providers (HCPs) on providing cervical screening for Aboriginal and Torres Strait Islander women, who experience a higher burden of cervical cancer than other Australian women.

Methods: Semi-structured interviews with 13 HCPs from four Australian Indigenous primary health care centres (PHCCs). Transcripts were thematically analysed.

Results: HCPs discussed the need to approach cervical screening with sensitivity to women's emotional and cultural needs and sustaining relationships built on trust and respect. HCPs reported challenges in promoting screening to Aboriginal and Torres Strait Islander women due to cumbersome systems, competing clinical priorities, workforce capacity limitations and specific challenges associated with implementing the renewed National Cervical Screening Program.

Conclusions: In practice, HCPs experience several challenges to delivering cervical screening. Understanding HCPs' perspectives on their approach to cervical screening delivery, and the systems in which this occurs, can help to ensure that they receive adequate support and resources to deliver cervical screening to Aboriginal and Torres Strait Islander women.

Implications for public health: It is important that HCPs adopt a multi-faceted, person-centred approach to cervical screening that is responsive to women's needs and that works synchronously with supportive PHCC services and systems and the National Cancer Screening Register.

Key words: cervical screening, Aboriginal and Torres Strait Islander, health care providers, qualitative

Cervical cancer incidence and mortality rates have halved in Australia since the introduction of the National Cervical Screening Program (NCSP) in 1991.[1] Although Australia could be one of the first countries in the world to eliminate cervical cancer,[2,3] incidence rates among Aboriginal and Torres Strait Islander women remain more than twice those of non-Indigenous women and mortality is three times higher.[1] This is partly because participation in cervical screening among Aboriginal and Torres Strait Islander women is approximately 20 percentage points lower than other Australian women – 33.5%–34% compared to 54.4%–56.4%, respectively.[1,4,5] The disparities in cervical cancer outcomes and screening participation rates indicate that the NCSP is not meeting the needs of Aboriginal and Torres Strait Islander women.

Australia's NCSP was renewed in December 2017, in line with the best available evidence and technology:[6] The Papanicolaou (Pap) test was replaced with the human papillomavirus (HPV)-based Cervical Screening Test (CST) with new clinical follow-up pathways; the screening interval was increased from two to five years; the eligible age changed from 18–69 years to 25–74 years; and the option of self-collection for under-screened or never-screened women 30 years old or over was introduced.[7] These changes were accompanied by a new national screening register, the National Cancer Screening Register (hereafter, the Register), which was not ready in time, delaying NCSP transition for seven months.[8]

Cervical screening in Australia is delivered predominantly through primary health care, including general practice, community and women's health centres, family planning or sexual health clinics and Indigenous health services provided by Aboriginal Community Controlled Health Services (ACCHS) or government-run services specifically for Aboriginal and Torres Strait Islander communities.[9] Indigenous health services aim to provide culturally appropriate care, providers, information and support.[10,11] In 2018–19, 54% of Aboriginal and Torres Strait Islander clients seen by Indigenous health

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services were female.[4] Thus, these services have an important role in Aboriginal and Torres Strait Islander women's access to and uptake of cervical screening.[12,13]

Many factors act as facilitators or barriers for health practitioners in delivering cervical screening for Aboriginal and Torres Strait Islander women. These include health service and system factors (e.g. culturally appropriate program and service delivery, availability of workforce and resources, appointment wait times), health practitioner factors (e.g. attitudes, communication among providers and with clients, cultural differences), and community consultation and engagement.[14,15] There are also many factors that shape women's decisions to participate in cervical screening, including feelings of shame, fear and distrust, privacy concerns and competing life priorities.[16,17] Enablers of screening include culturally safe resources and services, flexible service provision, the availability of female and/or Indigenous health practitioners, and positive relationships with health services and staff.[14,17] It is important for health care providers (hereafter, HCPs) to understand these factors.

Little research has explored HCP perspectives on the delivery of cervical screening, especially of those who work with Aboriginal and Torres Strait Islander women. HCP perspectives may offer insights into service provision and identify opportunities for HCPs to support participation. This study aimed to investigate HCP perspectives and approaches to the provision of cervical screening to Aboriginal and Torres Strait Islander women attending their Primary Health Care Centre (PHCC).

Methods

Reporting adheres to the Consolidated Criteria for Reporting Qualitative Research.[18]

The present study was part of the Screening Matters project, conducted in five PHCCs across Queensland, New South Wales and the Northern Territory, including ACCHSs and government-run services. Screening Matters sought to understand the perspectives of Aboriginal and Torres Strait Islander women and HCPs on cervical screening. This paper reports the findings for HCPs; the findings for women are reported elsewhere.[17] The abbreviation HCP collectively refers to study participants who had varying roles in health care provision.

Participants and recruitment

HCPs from four PHCCs participated in this study. HCPs were eligible to participate if they were involved in the delivery and/or promotion of cervical screening to clients. A contact person at each PHCC identified potential participants and, pending their approval, passed on contact details to the research team, who then contacted HCPs to confirm eligibility and interest in participating in the study and to arrange an interview time. HCPs at a fifth PHCC did not respond to multiple invitations to participate and were therefore not interviewed. No HCPs actively declined to participate after receiving an invitation and none dropped out of the study.

Data collection

Semi-structured interviews were conducted by an Aboriginal or Torres Strait Islander woman (LW or TB). HCPs received the interview questions and provided written informed consent prior to commencing the interview. Topics included clientele, information systems, workforce, education and client access. Interviews were conducted from April 2018 to January 2019 over the phone or in-person at the interviewee's place of work or in the community, with either one or two interviewers present. In one instance, two HCPs completed the interview together rather than individually. Interview duration ranged from 17 to 65 minutes. One HCP provided written responses rather than an oral interview. All interviews were audio-recorded and transcribed verbatim. Participants were not reimbursed.

Information on gender, Indigenous status, description of role, length of time working in the PHCC, years of experience in health care, qualifications and highest level of education were collected via a questionnaire.

Data analysis

The geographic remoteness of PHCCs was categorised as major city, regional or remote using the 2016 Australian Statistical Geography Standard.[19]

Transcripts were imported into NVivo Plus (QSR International Pty Ltd, Version 12.3.0.599).[20] Thematic analysis was conducted by two authors (RJ and TB) via iterative review of the transcripts. RJ and TB read two transcripts, developed an initial code list and codebook, then independently coded those two transcripts. Application and consistency of coding were compared, discrepancies were discussed and resolved, and the codebook was refined. Once a high level of coding agreement was achieved, coding was completed for the remaining transcripts with updates to the codebook as required. Themes were developed after initial feedback from all co-authors. Participants did not provide feedback on the findings.

Ethical approval

Ethical approval for this research was obtained from the Aboriginal Health and Medical Research Council of New South Wales Ethics Committee (1341/17), Central Australian Human Research Ethics Committee (CA-18-3113), Far North Queensland Human Research Ethics Committee (HREC/18/QCH/41-1218), Human Research Ethics Committee of the Northern Territory Department of Health and Menzies School of Health Research (2017-2993), and Metro South Human Research Ethics Committee (HREC/18/QPAH/52).

Results

Thirteen HCPs from four PHCCs were interviewed (Table 1). HCPs held a range of clinical (midwives, nurses, GPs, health workers) and non-clinical (health promotion, education, managerial) roles. Some participants held dual roles (e.g. nurse and PHCC manager). HCPs had spent an average of 10 years in their current role (range 1.3–29 years) and had on average 28 years of experience (range 12–42 years).

Thematic analysis of HCPs' perspectives on cervical screening delivery for Aboriginal and Torres Strait Islander women identified two major themes: Approach to cervical screening delivery; and PHCC systems and capabilities (Figure 1).

Approach to cervical screening delivery

Sensitivity to women's emotional and cultural needs

HCPs were conscious of the fear, shame, embarrassment and discomfort that women may feel regarding cervical screening and outcomes. HCPs considered traumatic experiences during childbirth, during previous cervical screening procedures or within the health system more broadly as obstacles to screening for some women.

> *I have had people say to me, "No, I'm never doing a Pap smear again. A nurse held me*

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> *down and made me have one when I was 18 and it was such a dreadful experience, I don't want one again". I get that.* P6

HCPs appreciated that many women need time to mentally and physically prepare for cervical screening and acknowledged that this may stem from some women's experiences of trauma.

> *For a lot of our ladies, I do understand that domestic violence and sexual abuse, and all those factors, do influence their general sense of self-care. And women do see the Pap as being invasive. And I totally agree.* P8

HCPs widely acknowledged that cervical screening is Women's Business and were sensitive to women's cultural needs for privacy and confidentiality. This was facilitated through private women-only consultation spaces and ensuring the availability of female HCPs. Most PHCCs could offer women a choice of HCPs to perform screening, and HCPs regarded this as important.

> *The male GPs, they will let the lady know* [they are due for screening] *and they'll refer them to a female GP. So, none of the male GPs do Pap smears here – it's not culturally appropriate.* P5

Cultivating and maintaining trust and respect

HCPs stated that long-lasting, trusting, empathetic and respectful relationships with women were essential in creating a safe and comfortable space to support women's screening decisions. Relationships were built with an understanding that women's multiple responsibilities could mean that cervical screening was not an immediate priority.

Several HCPs recognised the need for balance between building and maintaining trust, promoting the importance of screening and providing information, yet ultimately recognising women's agency to make the decision:

> *You've got to give people a lot of space; you give them the information, they say yes or no, they're completely competent to make that decision; you respect it, you ask for permission to check in regularly, and I ask them even how often it's okay for me to check in …* [I say to clients] *"… I'm not planning to nag you, but I want to make sure I offer you what's available and if you're just not ready, you're okay, you don't want it, say no or ping off, talk again in two years", and because I did that to a couple of women for many years, when they were ready they just went, "Yeah, ready, let's just do it".* P1

Table 1: PHCC and participant characteristics.

PHCCs (total n=4)	**N**
Remoteness	
Major city	2
Regional	1
Remote	1
Participants (total n=13)	
State/territory	
New South Wales	3
Northern Territory	4
Queensland	6
Gender	
Female	12
Male	1
Indigenous status	
Aboriginal and/or Torres Strait Islander	6
Neither Aboriginal or Torres Strait Islander	7
Education level[a]	
Year 12 or below	2
TAFE certificate/diploma, trade certificate	4
University	6

Note:

a: Based on 12 participants

On the foundation of good relationships, HCPs relied on communication and cues from women to determine whether they would be receptive to opportunistic screening.

> *If they haven't had one for eight years I will be saying, "I think it's a really good idea, and are there any things that we can do to make this easier for you?" But if you get met with a blank, "No, I'm not interested", then I don't tend to push that.* P6

At times, good relationships with women had unintended consequences for women's decisions to screen. Some HCPs reported that some women preferred a different HCP to perform their screening, either for the woman's own comfort or to preserve her relationship with the HCP:

> *We know each other quite well and she* [the client] *wanted to save me the trouble of having to do it. She felt I would feel uncomfortable doing that for her. She didn't feel uncomfortable at all but she wanted to save me the confrontation of it all.* P9

All staff (Aboriginal and Torres Strait Islander and non-Indigenous) described potential shame and privacy issues for clients when members of the Aboriginal and Torres Strait Islander community worked in the health centre. This was challenging for Aboriginal and Torres Strait Islander health workers who sometimes found navigating these interactions difficult.

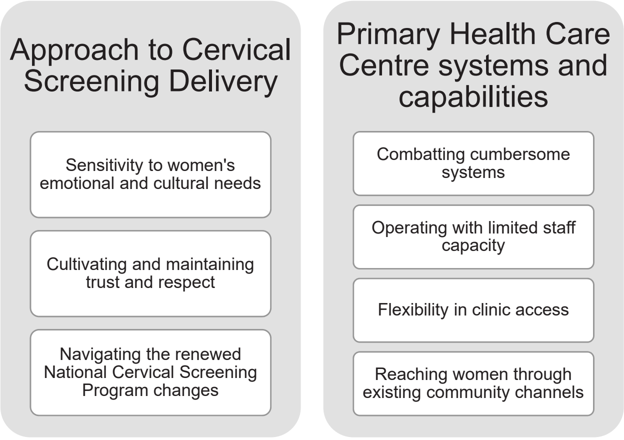
> *'Cause* [it's an] *Indigenous community, everybody knows everybody and they think oh, you're* [going to] *talk about them and there's that stigma and sometimes you come across really closed people, asking about their Pap smear, it's really personal, you can tell with the body language and if you do ask, they'll just give you a vague answer so you just leave it for the doctor.* P5

Navigating the renewed NCSP program changes

Despite the NCSP renewal commencing at least four months prior to the interviews, HCPs reported insufficient information and support for implementing the renewed program in practice, leading to uncertainty of new guidelines and lack of confidence in their ability to explain these to women. Some HCPs had sought training and information through webinars or local network meetings, which enhanced their understanding and enabled them to educate other HCPs.

While some HCPs felt that a longer screening interval and less frequent testing could be

Figure 1: Thematic analysis findings of HCPs perspectives on cervical screening for Aboriginal and Torres Strait Islander women.



appealing to women, one mentioned that women may further "fall off the radar" (P6) and screen even less frequently as a result. The renewal was seen as an opportunity to provide information and education to women about cervical screening and encourage up-to-date screening.

> *We are reinforcing importance. Just because it's five years doesn't mean that you don't have to do it. You really do have to still be looking after your bodies … I can't see that that side of it will fall off at all. I think it will just be a continual reminder and education.* P13

Generally, HCPs who spoke about self-collection considered it a valuable option, which could provide women with greater choice and control, particularly for those who may otherwise decline screening. However, HCPs were uncertain about the efficacy of the test, with some feeling that a provider-collected sample remained the best option.

HCPs felt that, when offering self-collection, they needed to ensure that women understood that this would not negate the need for follow-up procedures involving a clinician if the test returned a positive result.

> *So, if you do manage to convince someone to have this test, if you have* [a] *positive result then you've actually still got to have the conversation about, now we need to go and have a gynae review or colposcopy and do the speculum examination anyway.* P9

At one site, HCPs had been promoting self-collection to women for some time but highlighted that delays and deficiencies in program rollout meant that it was not yet available when women sought it out.

> *I had already had six months or a year leading up to that with women, going, "Yeah, there's a new thing coming, there's a new self-collector", and so I reckon on 1 May* [2017, the original NCSP renewal date] *I must have had about 10 women come, "I'm here for my new Pap smear". "Oh, actually it's not here."* P1

> *I had an Aboriginal woman who was like, "No, I'm not having a cervical screen from someone else, so yes, I'll do the self-collected", but we didn't have the swab, which was diabolical, to have someone want to do it and then not have the equipment was terrible.* P2

Primary health care centre systems and capabilities

Combatting cumbersome systems

Clinic information systems were the most common way that HCPs were notified that women were due or overdue for screening. However, these systems were described as difficult or time-consuming to navigate. For example, when needing to locate a woman's screening history, one HCP explained, "It wouldn't just pop-up … you would have to look through electronic results" (P13).

Some systems required HCPs to manually enter the due date for the next screen to ensure women were included on recall lists. Efforts to rectify missing data were time-consuming, with an HCP at one site spending "hours and days and weeks on trying to get our cervical screening recalls up to date" (P9). When the staff member responsible for managing recalls also held a clinical role, recall management took lower priority.

For other HCPs, the number of 'pop-up' notifications and reminders for an individual client could be a fatiguing:

> *If this patient was 50 it'd say, "Consider this patient for vaccinations, consider this patient for a cervical screening test, consider this patient for a pre-diabetic screen" … so you could get 10 or 15 pop-ups that appear … there's so much there.* P1

Despite administrative challenges, there was some flexibility in tailoring the software to suit HCP and PHCC needs. HCPs from two services described the addition of a cervical screening component to templates for care plans, health checks and maternal check-ups to promote cervical screening as part of routine care.

The process for notifying and recalling women for screening was similar across sites. Most commonly, system-generated letters were mailed to recipients. However, HCPs considered that this was not always an ideal way to reach women, particularly when the number of different reminders clients may receive had the potential to create "letter burnout" (P1).

Two sites were trialling text message reminders as an alternative recall method. HCPs perceived this approach as "non-invasive" and more effective in reaching women who are transient but relied on having complete contact details. In the remote site, with the community's permission, a list of names (but not the reason why) was posted in public areas, such as the store or council office, with some success.

> *We don't have the capacity to go out and say to everybody, "You need to come in". So what we're doing is – with the community's approval we've put a list up in the main areas of the community and if people see their name on the list they come into the clinic and say, "You want to see me?" And that's the best we can do at the moment because … I don't have, a nurse at the moment at all so I can't go hunting people down that are non-urgent … But the women at the shop tend to look at it [the list] and they talk to each other.* P13

Operating with limited staff capacity

HCPs from all sites reported they currently had enough staff trained, including visiting practitioners, to perform cervical screening. Despite this, most spoke about limited staff time and availability for women's health issues as major service barriers. HCPs frequently faced competing clinical priorities that made prioritising cervical screening particularly challenging.

> *For me, when I put it* [cervical screening] *into the mix with all the other responsibilities, it's not that it's not essential. It's just that so many other things are essential as well.* P8

HCPs, particularly those in the remote PHCC, felt that clinical staff turnover impacted on the continuity of care, often leaving few staff members available to perform cervical screening and manage recalls.

> *I just feel that we've had a lot of training where women have been trained to become Pap smear takers, which is really good, but we lose them, and then we put another lot through training, and then we lose them. So where are the ladies getting picked up for their Pap smears?* P11 and P12 (group interview)

HCPs viewed the PHCC as a collaborative team who all had a role to play in women's cervical screening, and thus turnover and vacancies across Indigenous and non-Indigenous clinical and non-clinical roles were felt throughout the PHCC and affected the capacity to reach women.

HCPs recognised the importance of Aboriginal and Torres Strait Islander community members working within the PHCC across a range of roles, which were key in facilitating relationships between the PHCC, HCPs and the community, and fostered women's screening attendance. For example, at the regional PHCC, Wellbeing Workers facilitated cervical screening through bringing women to the clinic for screening, watching children during appointments, or visiting women to have a yarn. In contrast, in the remote community PHCC, vacancies in community worker and nurse positions left no capacity to seek women for cervical screening.

Some HCPs identified champions within their PHCC who played a key role in supporting

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women to screen. Champions could be working in community liaison-type roles or emerged through relationships between HCPs and the community. For example, at one site an Aboriginal nurse used her standing and position within the PHCC, and trusted relationships with and knowledge of the community, to actively follow-up with women, improve accessibility and make cervical screening a priority both for women and the PHCC.

HCPs valued liaison and champion roles in overcoming some of the barriers to cervical screening, however, they noted challenges in these roles. HCPs spoke about a general decline in the Aboriginal and Torres Strait Islander workforce, difficulties in retaining staff, and the multiple demands faced by those in liaison roles potentially leading to exhaustion.

Flexibility in clinic access

Balancing women's needs with clinic operations was challenging. HCPs described barriers including: long waiting times in the clinic or to book with a particular provider; limited availability of walk-in appointments; and limited or no capacity to open outside business hours. They described some success with initiatives to overcome these barriers including: opening on Saturdays; extended weekday hours; HCPs' variable start times; and encouraging women to combine breast and cervical screening appointments.

Reaching women through existing community channels

Information and education about cervical screening were provided to women in a range of ways, including structured health promotion activities, resources and materials, women's groups and social media. HCPs viewed women's groups as important to reach women and disseminate messages widely. One GP spoke about the importance of empowering women's groups with knowledge in order to reach the wider community, with clinical information periodically provided by a trusted GP or nurse.

> *If you want to get a message out to different groups, one of the best ways for us to do it is to actually do the education to the women who are running the women's groups … My big thing is constantly working with the Aboriginal women who are within the service, and empowering them with knowledge so they can go on and pass on that information.* P1

Education and health promotion events for women in the community were considered an important way to bring women together in a comfortable, safe and supportive environment. However, HCPs identified that staff turnover and reduced staff capacity impacted on the ability to organise and deliver such events. Consequently, for most services they were held infrequently or ad hoc.

HCPs from the remote community described women's health weeks, which were held once or twice a year and combined engagement activities such as movie and pamper nights with education and support to promote screening uptake. One community, following previous success with community engagement around breast screening, held weekend women-only days that incorporated similar engagement strategies. Early responses to this initiative were positive, highlighting the importance of building on previous community-led successes.

> *I was surprised by how vocal they were, how they felt being around other women. And all of this stuff just came flooding out about reasons why they had never had a mammogram before and why they would never have, unless for this group and this day and being together with other Aboriginal women, so it's just so powerful to hear that and that translates to Pap smears. So, by the end of the breast screening focus group, we had women who had just come up with the idea of running the same day for cervical screening. That's what they wanted to do, let's get it done. So, this is women, themselves, saying I've never had a Pap smear, I've never had a mammogram, I'm going to do this now because I feel like it's a great thing to be with other women and look after my health.* P9

Discussion

Despite low cervical cancer incidence among most Australian women, Aboriginal and Torres Strait Islander women continue to experience a much higher burden. This study aimed to understand HCPs' perspectives on providing cervical screening to Aboriginal and Torres Strait Islander women. HCP approaches to cervical screening were characterised by sensitivity to emotional challenges faced by women, recognition of the value of trusting relationships and an understanding of screening as Women's Business, and challenges with implementation of the renewed NCSP. HCPs also reported combating cumbersome PHCC systems and challenges in operating with limited staff capacity, while also offering flexibility in clinic access and efforts to reach women through existing communication channels. Understanding these perspectives is important for addressing longstanding barriers to cervical screening for Aboriginal and Torres Strait Islander women.

Responding to women's needs

HCPs were sensitive to individual women's needs in their approach to cervical screening. HCPs recognised that shame, fear, previous experiences of trauma, the need for physical and mental preparation, and family and community responsibilities influenced women's screening decisions. These factors are consistent with those reported by Aboriginal and Torres Strait Islander women,[15,17,21,22] and other women in Australia and abroad.[23,24] By taking these factors into account for each woman and offering flexibility and choice where possible, HCPs adopted a person-centred and culturally safe approach to care that is key to supporting and enhancing women's participation in screening.

HCPs felt that changes to the NCSP, including the longer screening interval and self-collection option, were likely to be well-received by Aboriginal and Torres Strait Islander women. Consistent with previous research,[25] HCPs were frustrated by the delayed implementation, restricted availability of the test-kit[8] and poor availability of information. This in turn negatively affected their confidence in explaining the NCSP changes to women and potentially missed opportunities for cervical screening via self-collection. A growing body of evidence demonstrates the potential for self-collection to overcome barriers to clinician-collected cervical screening and improve participation in Australia[26-28] and among Indigenous women in Aotearoa New Zealand and Canada.[29-31] Currently, there are only two laboratories in Australia that support analysis of self-collected samples.[32] While there are avenues for self-collected samples to be forwarded to accredited laboratories for testing,[33,34] this requires HCP awareness of the process, as well as the capacity and willingness of PHCCs and laboratories to forward samples. The NCSP did not initially promote the national availability of self-collection once it was available through a single provider.[25] While not explored in the current findings, this could potentially pose

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an additional barrier to HCPs offering self-collection, particularly where distance may preclude the forwarding of samples within acceptable timeframes or if laboratories do not have processes in place to facilitate the process. Continued support and professional development opportunities for HCPs about the renewed NCSP are essential, and future changes should be communicated in a timely and widespread manner using lessons learned from the rollout[8] to ensure that women receive the benefits of the renewed NCSP.

The value and complexity of provider–client relationships

The relationship between the health professional and client is as complex as it is important to supporting women's health. The health professional–client relationship is dependent on several factors including effective communication, understanding of power dynamics and interpersonal relationships.[35] HCPs emphasised the critical role of trusting and respectful provider–client relationships in supporting women to participate in screening, which provided a foundation for open communication channels about screening, supporting women's control over decisions to screen when they were ready to do so. Such an approach may address Aboriginal and Torres Strait Islander women's experiences of "preaching" about cervical screening from HCPs.[17] In contrast, some HCPs perceived that well-established provider–client relationships, combined with the intimate nature of the procedure, could cause potential feelings of shame or embarrassment among women, leading to screening avoidance. Research has suggested that some women may prefer an unknown 'one-off' provider to overcome these feelings.[22,23,36] In the context of cervical screening, HCPs' relationships with their clients may act as both a facilitator and a barrier to screening; therefore, HCPs need to be well-equipped to be aware of and navigate these intricacies.

Aboriginal and Torres Strait Islander HCPs experienced additional complexities in provider–client relationships. Some Aboriginal and Torres Strait Islander HCPs in our study felt that discussing or providing cervical screening could cross personal or cultural boundaries and that it was more appropriate for cervical screening to be discussed and performed by another female HCP, as previously mentioned elsewhere.[37,38] While Aboriginal and Torres Strait Islander women have reported a preference for an Aboriginal and Torres Strait Islander HCP due to enhanced cultural safety,[17] this finding indicates that respect for community and cultural protocols and customs must be bi-directional between provider and client, and such complexities must be recognised and understood by the PHCC.

Workforce considerations

HCPs reported that challenges with recruitment and retention of Aboriginal and Torres Strait Islander staff were a barrier to delivering cervical screening and associated health promotion events, an issue that is also reflected in Australian primary health care more broadly.[39] The presence of Aboriginal and Torres Strait Islander staff within health services was highly valued by HCPs and was critical to supporting cervical screening through clinical, champion and community liaison roles. As Aboriginal and Torres Strait Islander staff are in the unique position of being accountable to the Aboriginal and Torres Strait Islander community as well as their colleagues, this may produce tensions between cultural and organisational responsibilities, and exhaustion from multiple roles within and beyond the PHCC.[39] Our findings show that these complexities must also be considered in the context of providing cervical screening for Aboriginal and Torres Strait Islander women. Strategies such as peer mentoring, clear role descriptions and responsibilities, and culturally safe workplaces may support the recruitment and retention of Aboriginal and Torres Strait Islander HCPs,[40] and consequently also support cervical screening outcomes.

Systems to support screening

HCPs relied on clinical information systems to support routine cervical screening delivery and notification functions prompting them to offer screening to women, but encountered difficulties maintaining databases with screening status, as well as experiencing "pop-up fatigue". Similarly, HCPs were concerned that women experienced "letter burnout" from the volume of reminder letters, which could contribute to screening being overshadowed by other health and life priorities. The importance of well-maintained clinical information systems, including quality improvement processes, has previously been noted[12] and can help to improve screening rates in Indigenous as well as mainstream PHCCs.[13,22,41]

Some of these challenges may be alleviated by the Register through: i) direct invitations to women when they turn 25, and again before they are next due; ii) reminders to HCPs when women become overdue; and iii) HCP access to women's screening history.[42] Further enhancements that were planned for 2020 (but delayed due to COVID-19) included a Healthcare Provider Portal and integration of the Register with clinical information systems, both of which will provide real-time access to women's screening results and history and allow for the submission of data to the Register electronically rather than by paper-based forms.[43] Integration with the Register at this stage is only planned for two systems, BestPractice and MedicalDirector, with a notable absence of Telstra Health's Communicare, which is marketed as the "leading health software supporting Aboriginal and Torres Strait Islander organisations".[44(p1)] Support for additional software systems integration with the Register should be considered, particularly those that are commonly used by PHCCs providing services to Aboriginal and Torres Strait Islander clients.

Limitations

Our sample was small, comprising 13 HCPs from two urban, one regional and one remote PHCC. As all PHCCs were Indigenous primary health services, HCP perspectives may not represent views of those working in mainstream PHCCs or others that deliver cervical screening (for example family planning clinics or hospitals). Further, the views of HCPs do not necessarily reflect the actual barriers and enablers facing women. However, their views provide insight into the PHCC context and can highlight gaps in HCPs' understanding of the barriers facing women.

HCPs in our sample all demonstrated commitment to improving health care for Aboriginal and Torres Strait Islander people, and PHCCs that consented to participate in the study indicated a desire to better understand factors influencing cervical screening, with community-centred and culturally safe care integral to their service delivery models. Thus, selection bias may have resulted in the recruitment of highly motivated and enthusiastic HCPs and PHCCs with an emphasis on factors supporting screening, rather than those that do not support screening.

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Conclusion and implications

Primary health care providers are integral to efforts to achieve cervical cancer elimination for Aboriginal and Torres Strait Islander women. Indigenous health services, and HCPs working within them, have an important role in addressing some of the challenges faced by Aboriginal and Torres Strait Islander women in accessing cervical screening. The findings of this research indicate that a multi-faceted approach is required, in which HCPs are sensitive and responsive to Aboriginal and Torres Strait Islander women's needs and cultivate a culturally safe and accessible place for cervical screening to occur, including the availability of self-collection, alongside PHCC systems and a workforce that support the needs of HCPs and women. This approach will work towards addressing long-standing and unacceptable barriers to cervical screening for Aboriginal and Torres Strait Islander women.

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