

BMJ Open Health and medical professionals' antenatal HIV testing practices and perceived barriers to routine testing in Tasmania, Australia: a qualitative study

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ABSTRACT

Objectives This study sought to explore health and medical professionals' antenatal HIV testing practices and the perceived barriers to routine testing in Tasmania, Australia.

Design This qualitative study undertook a Foucauldian-informed discourse analysis of 23 one-to-one semistructured phone interviews. The focus of our analysis was on language as a medium for interactions between clinicians and their patients.

Setting Primary health care and antenatal health services in the north, northwest and southern Tasmania, Australia.

Participants Twenty-three health and medical professionals (midwives (n=10), general practitioners (n=9) and obstetricians (n=4)) providing antenatal care.

Results Antenatal HIV testing is practised within a discourse of ambiguous terminology, stigma and the perception that HIV is a theoretical risk, generating confusion among clinicians as to how and who is tested. This creates clinical hesitancy towards antenatal HIV testing, a barrier to universal prenatal HIV testing.

Conclusion Antenatal HIV testing is undertaken within a discordant discourse generating clinical hesitancy where HIV is perceived as a theoretical risk and surrounded by stigma. Using neutral language and replacing the words 'routine' and 'recommended' with 'universal' testing in public health policy and clinical guidelines could increase health providers' confidence and reduce ambiguity and the legacy of HIV stigma.

INTRODUCTION

Globally 19.7 million women (15+ years) were living with HIV in 2021 and 30% of those newly infected were unaware of their HIV status.¹ In Australia, an estimated 29 460 people (0.14% prevalence rate) were living with HIV in 2021, with 9% unaware of their HIV status.² HIV transmission (vertical transmission preferred to avoid language that fosters stigma) can occur during pregnancy, birthing and during the breastfeeding period. Also known as mother-to-child transmission, vertical transmission accounts for 9% of new cases globally and occurs in 20%–30% of infants born to mothers who are not receiving

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ In terms of methodology, the use of the Foucauldian-informed discourse analysis has added depth and breadth to our analysis and supported the triangulation and validity.
- ⇒ Discourse analysis highlights the hidden power of language both in policy and clinical practice.
- ⇒ A strength of the study was that it included participants across three different medical/health disciplines (midwives, general practitioners and obstetricians), providing a spectrum of perspectives.
- ⇒ Qualitative research studies are subjected to limitations with respect to generalisability, and these should be taken into consideration when interpreting our findings.

antiretroviral treatment.^{3,4} The vertical transmission rate is low in Australia, 1.9% for the period of 2017–2021, a 22.2% decrease from 24.1% from 1992 to 1996.² Conversely, vertical transmission remains high in low and middle-income countries (LMICs) at a rate of 10–30%. HIV prevention strategies such as pre-exposure prophylaxis and increased testing have reduced HIV notifications and vertical transmission. However, recent data show that 59% of notifications are late diagnoses from heterosexual transmission.¹ The lack of universal testing of HIV in pregnancy continues to threaten global efforts to achieve zero new infections by 2030.^{3–5}

HIV testing practices in Australia consist of an 'opt-in' approach, testing those 'at risk', at patient request or clinical indication and 'routine' testing of pregnant women, meaning testing 'should be routinely offered as part of the suite of antenatal screening tests'.⁶ The most opportune time for testing is the first trimester of pregnancy, with the mother's general practitioner (GP), midwife or obstetrician, where individual care pathways for antiretroviral therapy, labour, delivery and breast feeding can be initiated if the mother

is HIV positive at a subsidised cost to the patient.^{3 6} This approach is effective in reducing maternal, infant and child morbidity, mortality and the social and economic burden HIV diagnosis places on their families.³ However, prenatal HIV testing practices are either not reported or suboptimal in many settings.^{1 3 7 8}

Multiple barriers exist to HIV testing for both women and clinicians. Bagchi *et al* cite a range of interpersonal and institutional barriers (such as fear, knowledge of and attitudes towards HIV testing, stigma, lack of self-efficacy and concern for cost-effectiveness) for clinicians routinely testing for HIV in the general population.⁹ Concerns about the cost and lack of reimbursement, extra administration and clinical burden to test and uncertainty about how to answer patients' questions about testing reflect a need for additional resources and training.^{3 9} Pregnant women face structural and personal barriers, such as gender inequality, fear of discrimination, stigma from healthcare providers, lack of HIV education and access to antenatal care. In 2021, 20% of Australian women and 11.7% of Tasmanian pregnant women did not attend antenatal care in their first trimester, contributing to missed opportunities for preventive HIV testing.^{3 7} For Tasmanian women, accessing trusted, safe and affordable maternity care is impacted by diverse rural and social contexts including medical and healthcare provider workforce shortages and centralisation of services, high rates of social disadvantage, sexual and gender violence, smoking in pregnancy (13% vs 8.8%) and teenage and young mothers (aged <24 years) (15.1% vs 9.4%) when compared with Australia.^{10 11} These barriers impact how women seek and receive antenatal and sexual healthcare and a health services response to HIV prevention.¹²

Moral discourses underpin HIV stigma and discrimination^{13 14} creating barriers to testing for both clinicians and patients.¹⁵ The use of medicotechnical language such as routine, mandatory, at risk and high risk dominates media discourse, public health documents and clinical guidelines perpetuating HIV exceptionalism; risk-based testing and reporting.^{16 17} These historical, social and political constructs continue to present barriers to women's access to universal HIV testing and treatments.^{3 7} Identifying how language is used to control and frame HIV testing practice will inform public health policy and guidelines to support a more universal approach to HIV testing. This study sought to explore health and medical professionals' antenatal HIV testing practices and the perceived barriers to routine testing in Tasmania, Australia.

METHODS

This qualitative study used a social constructionist approach to undertake a Foucauldian-informed discourse analysis of interview data. Qualitative enquiries move beyond fixed reality and observe/analyse the socioculturally constructed meanings of individual and group practices, knowledge and language.¹⁸ The study was conducted in 2019, in Tasmania the southernmost Island

state of Australia with a current population of 571.200 and a total fertility rate of 1.58 babies per woman.¹¹

Sampling and data collection

A combination of purposeful and snowball sampling strategies was used to invite clinicians who provided antenatal care in Tasmania to participate in one phone interview. Theoretical sampling guided the selection of participants and supported the data saturation.¹⁹ Clinicians were provided with written and verbal information about the study and verbal consent was obtained at the time of the interview. Twenty-three one-to-one semistructured phone interviews lasting between 60 min and 90 min were conducted with health and medical clinicians (midwives (n=10), GPs (n=9), and obstetricians (OBGYN) (n=4)) from north, northwest and southern Tasmania, between April and June 2019. An interview guide was used (see online supplemental file). Participants were asked to explain 'What is your process for testing pregnant women for HIV? What do you say to the women? What are the barriers to routine testing? What do you think about routine HIV testing for pregnant women? Are you aware of the current public health recommendation for testing pregnant women for HIV? Do you have anything else to add? Interviews were audio recorded and transcribed verbatim into text. Field notes were taken at interviews and added to NVivo software program (V.1.7) along with annotations on the transcripts.

Data analysis

A theme-orientated Foucauldian discourse approach was used to analyse and interpret the interview transcripts. The focus of our analysis was on language as a medium for interactions between clinicians and their patients. The aim of Foucauldian discourse analysis is to reveal the way in which individual or group power is exercised within relationships, where it comes from and its effects. Discourse refers to the production of knowledge and practices through shared and agreed-upon language. Discourse analysis focuses on language; symbols, figures of speech, concepts and values and how individuals and groups such as medical and midwifery professionals practice and exercise power through shared language. These are sometimes referred to as 'regimes of truth' that may act to legitimise a mode of social, clinical or political practice.²⁰ For example, a health policy may be used to regulate people's behaviours. This may include monitoring what people say and do to prevent them from doing what might be deemed as 'wrong'—*panopticism*.²¹

Discourse, therefore, provides a framework to support the regulation of a given area, such as HIV vertical transmission, testing practices or the medical and healthcare providers' practice.²⁰ Discourse analysis necessitates that the researcher views the problem from the 'outside' to recognise the hidden assumptions and practices that form the rules.¹⁸ Therefore, the analysis of language and how it is used in medical/health encounters offers insights

into structural and interpersonal barriers impacting HIV testing in pregnancy.

Transcripts were read by two researchers (JA and GBD), individually and as a team, several times, to establish an initial overview, followed by a second round focusing on the structure and identifying initial concepts, and finally a detailed interpretive reading of thematically group discourses; paying attention to the way in which the clinicians spoke about how and when they tested pregnant women for HIV in relation to the international³ and national guidelines²² and the ways they negotiated the tensions HIV testing created for themselves as agents in the health institution. Two researchers (JA and GBD) moved back and forth through the data to make connections between the different uses of language. Related codes and subcodes were grouped to form the basis of descriptive themes using a matrix. These were reviewed, defined and named by two researchers (JA and GBD) before being interrogated for explanatory themes. Final themes were created jointly by two researchers JA and GBD) and validated by the presentation of the findings to the rest of the study team. The research team's backgrounds are in sexual health medicine, midwifery/nursing, social sciences and public health.

Patient and public involvement

None.

RESULTS

Of the 23 study participants, consisting of midwives (10), GPs (9) and OBGYN (4), the majority were women (21) and provided care to women in antenatal clinics, primary health GP-based shared care and public hospital maternity health services. These services were spread across the state of Tasmania, with five clinicians practising in the north, nine in the south and nine in the northwest.

The Foucauldian-inspired analysis revealed that antenatal HIV testing is practised within a discourse of ambiguous terminology, stigma and the perception that HIV is a theoretical risk, generating confusion among clinicians as to how and who is tested. This creates clinical hesitancy towards antenatal HIV testing, a barrier to universal prenatal HIV testing (figure 1). These themes are discussed in the following section. Quotes were chosen to demonstrate congruence across the interviews.

Theoretical risk

All participants recognised the importance of antenatal testing to prevent mother-to-child vertical transmission of HIV in pregnancy. However, participants explained that Tasmania was sheltered from 'real-world problems' so 'there is less risk' and less need to test 'every' pregnant woman. Indeed, the prevailing attitude among all clinicians was that testing for HIV during pregnancy was like searching for a 'needle in a haystack'; a hypothetical threat, low-risk, commonly unseen disease. As one midwife said, 'I don't believe it's (HIV) that prevalent in

society'. In the following quote, a GP summarises what they believed to be the clinical aptitude towards antenatal HIV testing.

Look I don't know, it's just as easy to do HIV while you're doing all the rest of it. All the old crusty doctors will definitely do syphilis, so they should be able to just as easily do HIV... I think one of the hurdles in the past has been on the antenatal screening info from the hospital, they put optional HIV testing. If you have this oh it's really uncommon, we never get new HIV cases in Tasmania, we don't really need to test for it here. In particular, I think the older crusty doctors just don't do it, because of the old stigma and all that sort of stuff from years gone by.

The use of the word 'old' reveals the legacy effect of historical attitudes, practices and institutional power around HIV/AIDS.^{14 17} For Foucault, the ways words are used help to reveal the verbal traces of history and how power is exercised.²⁰ It was clear from the data that past practices and legacy of HIV stigma existed and influenced whether HIV serology was included in the first trimester of 'routine basic... compulsory screening tests'. Participants noted that this 'gamut of bloods' often excluded HIV because it was perceived as non-mandatory by some members of the health team, something that needed pre/post counselling, and that was feared. Overall HIV was not talked about as a universal test but as an option for those perceived as a moral or disease risk (box 1).

Divergent discourses and practice

Language is a system of control that shapes how and what we do in everyday practice. For Foucault language/knowledge is linked to systems of control that are used to regulate and maintain practices such as Sexually Transmitted Infections (STI) testing and medical practice.²¹ When we asked participants to tell us about their antenatal HIV testing practices, clinicians responded didactically, using contradictory language, 'it's (HIV test) just'... 'routine', 'recommended', 'optional', universal, 'standard' 'compulsory', 'mandatory' and 'non-mandatory'. These terms were often used interchangeably, generating some uncertainty about who should be tested, and when and how testing was done across both public and private sectors of the health system. As one midwife from the public sector said, 'I just thought it [HIV] was recommended I didn't know it was optional'. It was clear that ambiguous discourse surrounding HIV testing was generating divergent practices. Indeed, some clinicians openly described how this shaped day-day practices.

Some of the GPs are very good, they would be already doing all the key screening tests as required. Some would not do anything at all, they would just do a beta HCG and if it's positive they will send that referral. That's what they will do. So, you cannot expect a lot from them. I mean, basically the minimum standard

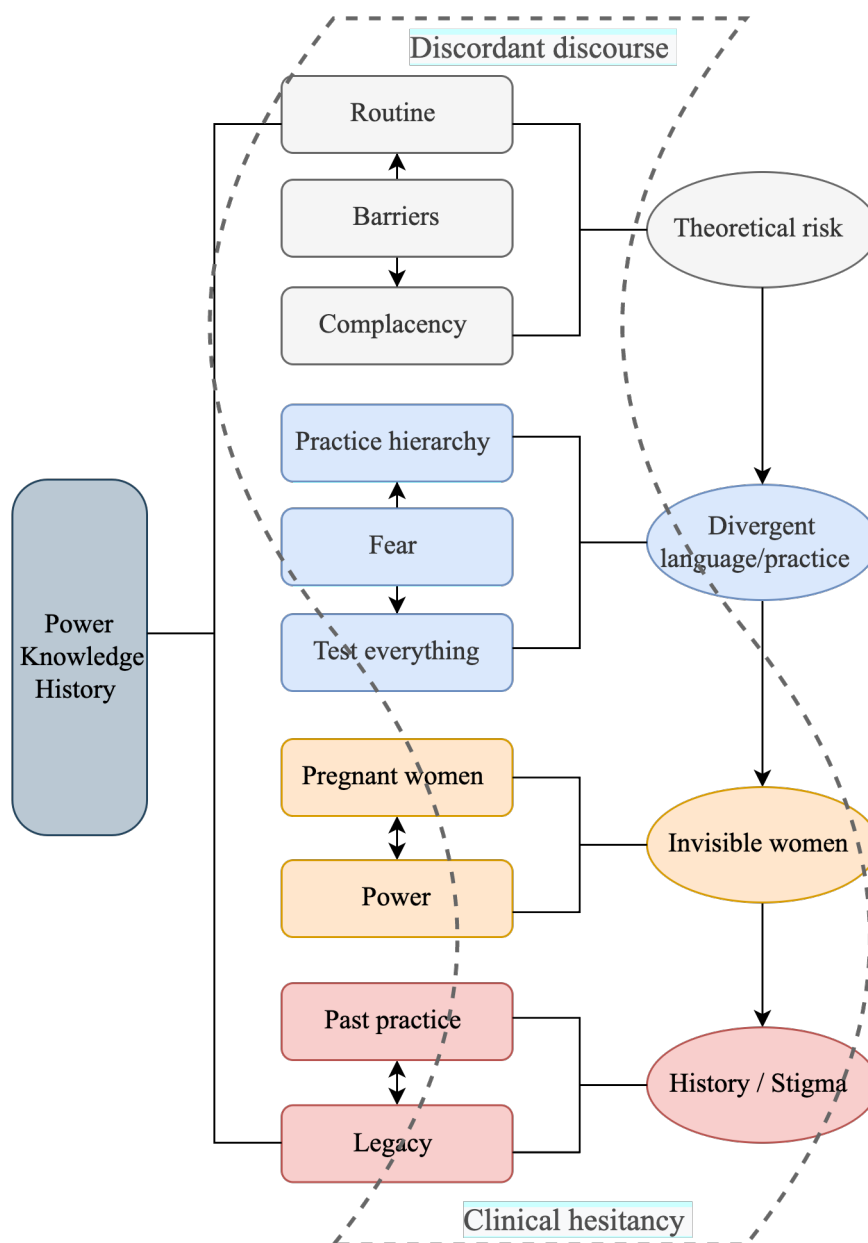


Figure 1 Derivation of themes of the discordant discourse of antenatal HIV testing.

even sometimes. So, there's a heterogeneity of standardised care in the private sector (OBGYN).

When we asked GPs and midwives about their role, they talked about HIV testing using monosyllabic passive language, 'yes', 'I agree with it', 'it's positive' and 'a good idea'. Many were cautious in their responses, fearing peer critique, that they may be 'missing something', not doing the right thing or expected. Roles and responsibilities for testing were talked about in a hierarchical manner. The GP was assumed to be the 'first point of contact', the ones who 'should' do the first test, followed by midwives who 'should pick up anything that is missed'. OBGYNs held the position of the expert overseer, often expressing frustration at the inconsistency of testing practices—it's

not my job to do it—it is the GPs'. (box 2) Words direct relationships¹⁵ and in this context the repetitive use of 'should' creates an order of who is responsible to do the task. This generates a hierarchy of practices, a social order where each clinician takes a position to maintain power and order in their own practice setting. This could be seen as a way of creating a safety net, ensuring that the HIV test is undertaken when gaps in practice appear, for example, 'it is (HIV) not always done at the first visit, it might get done on the second visit' (midwife). Here, again, divergent practices appear. This may be due to clinicians feeling that they too were under surveillance (*panopticism*) just like their patients²¹ which acts as both an enabler and barrier to HIV testing.

Box 1 Theoretical risk.

When I first came to Tasmania from Melbourne we were told that it wasn't routinely tested because it's not that common in Tasmania, but I don't think we can use that as an excuse anymore—people without ... and you know it's not that uncommon in Tasmania (OGGYN).
I might have said to patients in this community 'Oh, I don't think you really need to worry about HIV, your risk is actually quite low' (GP).
I think in theory it is an important test to have, in practice I have never picked up one single positive one that we didn't know was positive before (GP).
... yeah, so I have never had a positive HIV test result. I don't believe it's that prevalent in society (Midwife).
... but if I thought that a patient had a test in the last year or two then I might not order it again because you don't want to order unnecessary tests. So, there probably some antenatal patients where I don't do a HIV test if I can see that they've had one in the last couple of years and they're denying any high-risk activity or new partners or any other sort of things (GP).
I personally don't think that it's something that I see frequently but—you know—there are a lot of diseases that I don't see frequently that—you know—it's when you pick them up it's like an important diagnosis to have (OBGYN).

Historical practices such as pre and postcounselling were frequently referred to as a reason for not routinely testing HIV in pregnancy. In the following quote, an OBYGN reflects on how HIV testing in the past was optional and how this has generated some confusion and hesitancy.

Box 2 Divergent discourse.

I do remember having a conversation with a colleague about, you know, whether we should repeatedly do it [HIV testing], so for example, let's say that a woman has a baby, and then falls pregnant a year later, hasn't changed her sexual partners in that year, should, you know, I've come across colleagues who say 'well, why should I do blood borne virus screening, including HIV, when she's just had it last year. There's been no change to her sexual partners, there's been no change to her practices, she hasn't had any high-risk activities, why should I?' (GP)
These people that aren't doing the HIV testing, is probably because they think that it isn't warranted or whatever, and then if the women came up and said I want HIV testing, they'd probably look askance. If people read [that they have to counsel] and they go ooh, I don't know how to counsel, I just won't do that. (GP)
Yeah, I mean it's quite difficult because it—they've—you know different GPs have different levels of experience and umm as far as when it comes to antenatal screening so the majority of women that I see that are referred through from the GP have had all their bloods done and the necessary scans and check that they've needed. But I have, in the last six months, had a few women come through that have had all the screening apart from the HIV (OBGYN).
So generally speaking if they haven't had the HIV testing through their GP already, as part of their routine—and it's part of the national guidelines that the HIV is tested at the first appointment in the GP. Sometimes it slips through the cracks and if I notice that umm I might have a chat to the woman and say 'Look this is a routine test we test for everyone. You might not consider yourself in a high risk but you never know' (Midwife).

Box 3 Invisible women.

They go with the flow and they are usually not too worried about it. But then I find most women are more focused on the baby and the scans and the tests that are done during the pregnancy as opposed to what happens at that GP visit (Midwife).
Umm I don't really explain in detail the risks of HIV to them or baby at that stage because I think that's overwhelming at their very first visit because we talk about a lot of things (Midwife).
Do the mothers ask any questions when you're screening them?
A: No. Never. Never. When I see HIV—obviously I have always looked at the HIV and I've found many have been missing. I haven't picked up anyone who's positive, which is a great thing but I've always ordered HIV. When I've told them that—if I miss someone in the first trimester screening and I see that they're a low-risk sort of thing at the background, but still I will ask that, and whenever I'm doing the next blood test I add it. And I say, 'Look, I'm adding the HIV'. I just inform them that I'm just adding the HIV. None of them have said anything about that. So, I didn't get any sort of questions from them. No, nothing from my experience (OBGYN).
... umm to be honest I have never spoken about HIV with them [mothers] ... but I think it's one of those things although it's rare, if you do diagnose it you can make a massive difference in particular with preventing mother-to-child transmission... (GP).

And then when it comes to HIV screening—and it's in brackets so it's optional. So, that used to happen. And they have recently changed... last month. So, I guess because of that, probably—and many of them [women] would not have that [HIV testing] done. And the midwives and even the doctors probably or some of ourselves think that this is not a mandatory—universally recommended screening test (OBGYN).

Ambiguous terminology appears to generate heterogeneity in HIV testing practices contributing to clinical hesitancy and that for Tasmanian women contracting HIV during pregnancy is only a theoretical risk (box 2).

Invisible women

All participants acknowledged that pregnancy was an optimum time for testing because 'it's a really strong motivator for women to get everything checked' (GP). When asked, 'do the mothers ask any questions?' Clinicians responded emphatically, saying 'No. Never. Never' (GP) (box 3). Participants went on to explain that women are more concerned with the baby and the scan and that because there are so many tests being done that it is 'just not on their radar'. Many doctors felt that there were differences between private and public patients stating that 'most women are pretty happy to do it [HIV testing] if it's free', explaining that for private patients, an HIV serology was an additional cost. Overall, the response to how pregnant women felt about HIV testing was framed around the assumption of 'low risk'.

Because [the] majority of patients just go "Yeah whatever", "Yep, no that's fine, that's fine". Because they know their risk is low. So if someone queries that, I

would then be thinking about “Oh, so what are you concerned about” (GP).

Foucault argues that when a group, such as pregnant women are targeted by a more powerful group (medical and public health surveillance systems), this empowers them because it includes them in the power/knowledge field.²⁰ However, from our data, there was little evidence that women were included as equal partners. One midwife recognised this as a barrier, explaining that informing/educating the mothers may act to help increase the acceptance of HIV testing in pregnancy:

Well I think knowing the risk of HIV, I think that would motivate any mum. Every mum wants to know that nothing is going to harm their baby. And, you know, just asking them and educating them, you know, makes them pretty aware and they're pretty actually happy to do the testing (Midwife).

However, overall women were often perceived as passive, never questioning or engaging in the process. Women's awareness of the importance of HIV testing was consequently an afterthought, ‘They're informed about it, but I think it's just within a cluster of things’, suggesting that they are perceived as vectors of diseases²³ rather than partners in the primary prevention. As one GP said—if patients had greater awareness, then they might be asking doctors for it (GP).

For some, doctors (GPs and OBYGN) and midwives, an antenatal HIV serology test was ordered if/when clinically relevant or the women were considered as ‘high risk’ and ‘at risk’. The risk profile was often associated with how the women appeared at the time of consultation; their age, area of residence, how they dressed and whether they were private versus public patients. Women who were private OBGYNs patients were often talked about as a separate client cohort, viewed as, ‘much higher quality or something’ who do not routinely have HIV tests done ‘because it is not necessary’ (GP).

Yeah, look, in the private sector when we get patients and they have not done any HIV test, not ordered by GPs and I have to order the HIVs and obviously they can't be bulk billed... because the test has been ordered by a private obstetrician, they should not have to pay. They should be bulk billed (OBGYN).

This type of social screening appears to generate an unconscious bias impacting how antenatal HIV testing is undertaken in Tasmania and may help to explain some of the complacency towards universal HIV testing for the pregnant population (box 3).

Legacy of HIV stigma

HIV stigma influenced practice, acting as a barrier to universal testing in pregnancy. The historical prejudice, shame and stereotyping around HIV⁷ made clinicians cautious about HIV testing (box 2). Many expressed uncertainties about how to manage a positive case, how

to counsel and what other clinicians may or may not be doing in their own practices. Others acknowledged their knowledge deficits, requesting ‘more knowledge, more understanding, more confidence and competence in offering and counselling women’ (GP). Some clinicians expressed concern about the potential “severe psychological burden” of an HIV diagnosis for the mother/child and how this may prevent women who are at ‘high risk’ from coming forward. Conversely, this type of risk discourse also acted to promote HIV testing as a part of the greater good—a way to prevent harm to the unborn child.

I think it's [HIV testing] a great idea because if we can prevent a baby from getting HIV, and if we can manage a woman at an early diagnosis and manage her so she's got... low viral load, then it's a better outcome for the mother and baby. So it's, yeah, just, yeah, it's a no brainer, you just, yeah, just do it. I think it's very sad that there's been a stigma attached to it for so long (GP).

Though acknowledging that there are excellent treatment options now and ‘things’ have changed, the moral meanings and shame associated with HIV/AIDS¹⁷ prevailed and influenced practice. Some attributed the lack of HIV testing to the legacy of HIV stigma, ‘I think the older crusty doctors just don't do it because of the old stigma and all that sort of stuff from years gone by’ (GP). For others, the history of HIV and the AIDs epidemic appeared to create hesitancy over who should be tested and why. For example, some referred to testing women who were perceived as ‘high-risk’ and/or not testing women who were negative in their last pregnancy.

We capture women at high risk...you know, I think where society is a bit more loose about... sexuality and sexual intercourse and contact with one another, there seem to be, you know, a—a freedom of it, then there was AIDS epidemic and then everyone's sort of was a bit more careful... now I think there's a little bit more ... I don't want to say promiscuous activity but I think, yeah, people have kind of just assumed that it's a disease of the 80s and 90s that it's not as prevalent now, which is too risky (Midwife).

Morally based language such as at-risk and sexual promiscuity undermines the effectiveness and uptake of surveillance programmes.⁷ In this study, this was evident in how clinicians spoke about risk and used women's risk profiles to make decisions about who should be tested, as one doctor said, ‘I will do it for high-risk patients but not for across the board everyone’. In turn, the acknowledgement of stigma stimulated a new discourse about how to mobilise demand for universal testing, as one midwife said ‘something that should be done because it is part of standard care’ not because of risk profiling. When asked about what changes were needed clinicians talked of a need for a more universal approach that would ‘normalise’ HIV testing in pregnancy for both the patient

Box 4 Legacy of stigma.

Yeah, oh one other thing. Because of the whole stigma about HIV testing and I don't know if it's still the case, but for many years you had to do it anonymously. That was just a pain in the butt, and I had a template set up for it, but I don't know many other people did.

Now I just, for antenatal testing, where the pre-test probability is so low, I just do it under their name and they don't seem to care. But the whole anonymous testing thing might slow people down if they remember that used to be necessary. I don't know if it still is or not.

But these days it's no different to any other disease, really. Apart from the fact that it can't be completely cured, well neither can Hep B half the time, or up until recently Hep C couldn't be either. I don't think there's a huge stigma out there like there used to be (GP).

I think there's still a very big stigma ... or there's still a thought that you have to do full—you know—counselling before you do a HIV test because that's what we were always taught in medical school—you have to counsel a person before doctors can order it. That sort of stuff (Midwife).

Some of them [doctors, midwives] don't even—they may not believe that the women need HIV... So many women are there who can be—on the face of it that they may look like they're very low-risk but they still can run a high-risk of HIV because we are such global communities now and we do so many tests, so many needle exposures and we have a high-risk of HIV and sexual exposures and things like that that you don't know. So, if we can make them understand it's just communicating with them and maybe more talks at the community level or in education (OBGYN).

Umm well yes I think it prompts them to do it as a standard test rather than to consider whether the women has a risk factor or something just—and to make it—I guess it's good for women and then if it's normalised ... then that removes the stigma as well and we can just say as midwives that this is one of the routine tests that we offer to all pregnant women, not because we think there's any reason that you might test positive but just because it's something important to know about for your care and for the baby's care (GP).

and the clinician, making it part of the 'gamut of first-visit antenatal bloods' (boxes 3 and 4).

DISCUSSION

Our aim was to explore health/medical professionals' antenatal HIV testing practices and the perceived barriers to routine testing. The results of this study show a discordant discourse surrounding HIV testing in pregnancy which generates clinical hesitancy, a barrier to universal testing. This discourse is made up of multiple and often contradictory terms creating some confusion around who was eligible to be tested for HIV. The clinicians' uncertainty was also underpinned by older morally based discourses about HIV/AIDs, perpetuating stigma and the notion that HIV is a theoretical risk, a disease only contracted by those who are targeted in policy documents⁶ and perceived or appear to be 'at-risk'. Although vertical transmission rates of HIV are low in Tasmanian and Australia compared with LMICs,¹² universal testing, as opposed to risk-based, provides a cost-effective and inclusive way to prevent vertical transmission for those unaware of their HIV status and not identified as an

'at-risk' group.^{3 24 25} Policy and practice leaders should develop a shared compatible language between policy and clinical guidelines and avoid the focus on patients at the highest risk to support changing misperceptions about HIV, reduce confusion and increase the medical/health professionals' health literacy around HIV testing in pregnancy.

Stigma is one of the greatest challenges facing efforts to eliminate sexually transmitted infections such as HIV.^{1 14} The historical legacy of the 80s and 90s when HIV/AIDs was first socially constructed as a disease of minorities^{13 17} is pervasive in the language used in practice and policy. This risk discourse drives HIV exceptionalism which continues to provide the policy frameworks that target and identify marginalised groups (such as men who have sex with men) as a risk to society.^{15 26} Though helpful to direct public health messages and raise awareness this type of discourse perpetuates stigma and discrimination against key population groups including pregnant women, preventing the uptake of services.^{3 14} This was noted in our study where risk discourses generated unconscious bias, hesitancy and the social profiling of women which directly impacted HIV testing practices. Clinicians often repeated verbatim the public health recommendations and reasons why HIV testing is important for the mother and child but in practice weighed up the need to test depending on how the mother presented her sexual and social profile. These barriers reflect a need for more cultural competency and diversity training and neutral language in practice guidelines and policy documents. This will help to address unconscious bias and stigma⁹ promote compatibility between practice and policy and move to a more inclusive approach to testing all women for HIV during pregnancy.

A strength of our study was that we drew from a range of health practitioners who care for pregnant women in regional and rural Tasmania providing a range of views. This enabled us to triangulate the data and understand how different disciplines (OBGYN, GPs and midwives) and services can work together to provide an HIV testing safety net to prevent missed opportunities for prevention and education. We used a non-member checking approach and internal verification (with other researchers and existing literature/policy) and theory (Foucauldian discourse) to support the rigour and reliability. Follow-up interviews would have allowed for greater clarification and confirmation of data over member checking which may have invalidated the data. Qualitative research does not seek to generalise, however, increasing the size and variation of the sample to include more gender and clinical practice diversity would improve the representation.¹⁹ A limitation and area for future research is the need to talk to women and their families. This is particularly relevant given the finding from our study that pregnant women were invisible, and not considered partners in the prevention of vertical transmission of HIV. Engaging with and involving women and their partners in HIV testing will raise awareness, ensure no one is missed and strengthen



trust between patients and providers and contribute to Sustainable Development Goal numbers 3, 4 and 10; ensure equitable access to health services, and health and well-being for all, promote gender equality and empower women and girls.^{3 5 12}

The language used in policy and clinical guidelines has a key role to play in constructing health and public understanding of communicable disease prevention strategies such as prenatal HIV testing. It was clear in our study that the public health medical discourse used in HIV policy and guidelines^{1 2 6} shaped practices and underpinned the discordant discourse of clinical hesitancy. Terms such as ‘recommended’ and ‘routine’ ‘offer’ ‘optional’ ‘high and low risk’ ‘at risk’ were repeatedly used verbatim to mitigate professional risk—fear of doing wrong. In this context, clinicians are as much under surveillance (*panopticism*) as the women being tested²¹ generating bi-directional anxiety and uncertainty about the availability and purpose of HIV testing for both mothers and medical/health professionals.^{7 9} It is well recognised that medicotechnical and public health language creates barriers to the uptake of care and promotes stigma, which undermines women’s reproductive and sexual health literacy.^{14 23} Lack of pregnant women’s empowerment to seek information and receive an HIV test, fear of domestic violence and stigma because HIV is associated with sexual transmission are barriers to universal testing.⁷ To address this, empowering both healthcare providers and women using a shared neutral language is required. As our study shows clinicians felt a need for more education, and clarity around HIV testing during pregnancy and how to best involve women. Similarly, increasing the mother’s partner involvement has been shown to reduce intimate partner violence, fear and uptake of HIV testing.⁷ From a policy perspective, a combination of education and the use of inclusive neutral language in policy documents, such as replacing the words ‘recommend’ and ‘routine’ with ‘universal’ and ‘high risk’ with non-discriminatory disease elimination language will reduce some anxiety, stigma and strengthen clinician’s confidence and the uptake of HIV testing by both women and healthcare providers.^{3 7 9}

CONCLUSION

Antenatal HIV testing is undertaken within a discordant discourse generating clinical hesitancy, where HIV is perceived as a theoretical risk and surrounded by stigma. Addressing HIV stigma as a barrier to universal testing is the key to achieving the reduction, if not the virtual elimination of vertical transmission for mothers and children everywhere. Using neutral language³ and replacing the words ‘routine’ and ‘recommended’ with ‘universal’ in public health policy and clinical guidelines will reduce ambiguity and the legacy of HIV stigma and strengthen healthcare providers’ self-efficacy of universal prenatal HIV testing.

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Semi-Structured Interview preamble and prompt sheet.

Title: Investigating Human Immunodeficiency Virus (HIV) antenatal testing within the Tasmanian Health Service: a mixed methods study

All survey participants who have provided their contact phone numbers will be contacted by researchers (LO, JA & GBD, AN) to invite them to participate in a one-off phone interview. A suitable time for all parties will be agreed upon.

Interview protocol preamble

- Introduction: thank the participant for their time and welcome them to the study
 - Researcher to introduce themselves and their role
 - Researcher to explain the purpose of the study including reading the information and consent to the participant and state these will be audio recorded. Ask permission to turn the audio recorder on and record consent. **Turn audio recorder on**
 - Ask the participant if they have any questions- request for verbal consent
Ask the participant to introduce themselves
 - Interview will commence using the prompts outlined below.
-

DRAFT Sample Interview topic and prompt guide.

These are semi-structure one to one phone interviews and each interview will vary a little from the others. Below are listed types of topics and prompts that we would like to discuss.

General:

1. Tell me a little about yourself
 - role, background, organisation?
2. This study is about HIV antenatal testing in Tasmania
 - What is your understanding of antenatal HIV testing?
 - Are you aware of any changes (policy, clinical guidelines, regulations) in how, when, where HIV testing is done in Tasmania? If yes, can you tell me a more about that?

Structural/ system:

3. Are you using a 'template' for antenatal referrals- if so which one?
 - Description? Name?
4. Are you using any pathology prompts within the practice medical software?
 - If so which one?
5. In your opinion what are the key/major system/structural barriers for HIV antenatal testing in Tasmania?
 - economic, administrative, practice and social, environmental?
6. What policies and guidelines are you aware of regarding HIV testing?

[Type here]



- Are they important? How do you access them? Easy to use?

Service provision

7. How is antenatal HIV testing done?
 - what you do/how do you go about antenatal HIV testing?
 - Information to women? written/verbal?
8. Is it routinely offered to all pregnant women?
 - If no /unsure - tell me bit more about that -possible reasons?
 - If yes - tell me a bit more about that i.e. how that is done? When? Where? who? what?
9. How do you talk about/inform women about antenatal HIV testing?
10. What do you think women understand/how do you think pregnancy women understand HIV and the testing process?
11. What information is available for women?
 - From where/who/what – example?
 - what do women need know about HIV testing?
12. What support do women need
 - information they need to know?
13. Do women ask questions when being tested?
 - Can you give an example of a question?
 - Possible reasons for not being tested? Possible requests for the test?
14. How are women informed about their results?
 - What happens when it is a positive result?

Professional level:

15. What you think about routine antenatal HIV testing all pregnant women?
16. How do others/those you work with view routine antenatal HIV testing?
17. What supports that are available for healthcare professionals?
 - In-service training, information, online sources, peer to peer
 - What type of information/knowledge is important for you?
18. Is there anything that needs to be changed/added/taken away to improve testing?
 - Education, knowledge, training, peer to peer support, guidelines, timing?
19. How do you think the process of HIV testing could be improved?
 - What needs to change?
 - Stay the same?
20. How confident do you think health professionals are with using the antenatal referral template?
21. Have you noticed a change in antenatal HIV testing since the roll-out of the revised antenatal referral template?
 - Tell me about this
 - What difference has it made

Is there anything else you would like to add?

Thank you for your time

END