Māori women and cervical screening: A Kaupapa Māori literature review

HRC Health Research Summer Studentship

Ref: 20/227

Applicant: Rebecca Lourie

Supervisor: Dr Alison Green

March 2020
## Contents

1. Acknowledgements .................................................................................. 3
2. Executive Summary .................................................................................. 3
3. Introduction .............................................................................................. 4
4. Rationale .................................................................................................. 4
5. Theoretical Perspective ........................................................................... 5
   5.1 Mana wahine .......................................................................................... 5
   5.2 Whānau/whakawhanaungatanga ........................................................... 5
   5.3 Te reo Māori me ōna tikanga ................................................................. 6
7. Element 1: Mana wahine ........................................................................... 6
8. Element 2: Whānau/whakawhanaungatanga ............................................. 8
9. Element 3: Te reo Māori me ōna tikanga ................................................. 10
10. HPV Testing, Self-Testing, and Vaccination ............................................ 12
11. Conclusions .............................................................................................. 13
   11.1 Implications .......................................................................................... 14
   11.2 Future Research ................................................................................... 15
12. References ............................................................................................... 16
Māori women and cervical screening: A Kaupapa Māori literature review

1. Acknowledgements
I would like to take this opportunity to thank Te Whāriki Takapou for the chance to do this literature review, and the Health Research Council of New Zealand for the funding which allowed me to commit my time to such project. In particular I would like to acknowledge Dr Alison Green for her supervision and continued support over the past few months, and Dr Jillian Tipene for earlier support and guidance throughout the application process. I also wish to thank Dr Andrew Sporle for his assistance with access and interpretation of statistical data.

2. Executive Summary
Cervical cancer refers to cancer of the cervix or lower part of the uterus. It is a slowly developing disease that is most often precipitated by infection with certain strains of Human Papillomavirus (HPV). There are around 170 new cases of cervical cancer affecting New Zealand women each year. Importantly, cervical cancer is a preventable, detectable, and treatable disease, particularly when screened for.

Since 1990, New Zealand has implemented a National Cervical Screening Programme (NCSP) with the purpose of early detection of pre-malignant and malignant cervical changes. Along with subsequent early treatment and regular screening, there has since been a significant reduction in cervical cancer development and associated mortality.

Despite the introduction of the NCSP, Māori women continue to be disproportionally overrepresented, with increased cervical cancer incidence and mortality when compared to non-Māori women. In addition, Māori women as a population, are less likely to attend regular screening, and are more likely to report dissatisfaction or failure of health professionals to address their cultural needs. When detected with cervical cancer, Māori are more likely to have a later stage of disease. However, even when detected at the same stage of disease, Māori may be more likely than non-Māori to die from cervical cancer, suggesting that earlier detection and earlier screening may be crucial for Māori women. Further research even proposes that Māori women are more likely to experience longer delays between detection of disease and initiation of treatment.

The collated literature indicates that there are key changes to the delivery and operation of the NCSP that could make a substantial difference to the experiences of Māori patients. This includes a system that more adequately understands and addresses cultural needs, that strives to develop whakawhanangatanga and strong connections with patients, and that provides information in a comprehensible, accessible, and appealing manner. Changes such as these can make extensive direct differences to participation in the NCSP and therefore help to tackle the disparities seen with Māori in relation to cervical cancer.
HPV screening options and vaccination appear to be promising for the future of cervical cancer prevention. Any discomforts associated with the methods of cytological screening are likely to be lessened with HPV primary testing, particularly if opportunity for self-HPV swabbing is implemented. In order to see equitable benefits as a result of these interventions, health practitioners need to ensure Māori participation in screening and vaccination is high, and that those with significant screening results fall into a system that understands and prioritises Māori needs.

3. Introduction

Cervical cancer is the name for cancer of the lower uterus or cervix. It is a slowly developing disease, which in most cases is secondary to infection with certain strains of the sexually transmitted, Human Papillomavirus (HPV) [1]. Importantly, pre-malignant changes can be detected and treated to prevent progression to cancer. New Zealand has a National Cervical Screening Programme (NCSP) that recommends regular cervical screening for detection and subsequent treatment of any abnormalities. The current primary method for detection of these early changes is liquid based cytological cervical screening [1]. This involves the use of a brush to collect a sample of cells from the cervix. These cells are later applied to a slide for microscopic investigation.

Effective screening programmes are those that are accessible and utilised equitably. The ‘inverse equity hypothesis’ refers to inequities in healthcare that may occur as new health interventions are introduced [2]. Often those most at need of the additional interventions appear (for a variety of reasons), to actually forego that intervention, or take it up later in time. Māori women are more likely to develop cervical cancer and are also less likely to partake in current cervical screening methods. The current literature review explores this issue in greater detail to determine factors that contribute to the inequities faced by Māori in relation to cervical screening.

4. Rationale

The purpose of the following report is to acknowledge existing cervical cancer public health initiatives in New Zealand, and to identify any possible areas of improvement in the structure and utilisation of these services for Māori. The report primarily focuses on the National Cervical Screening Programme (NCSP) and its current liquid based cytological screening. Later other methods of cervical disease prevention, screening, and treatment, will be considered such as vaccination, HPV testing, and educational measures.

Since 1990, New Zealand has implemented a National Cervical Screening Programme (NCSP) for women 20-69 years old who have ever been sexually active. After review of evidence and of the International Best Practice Guidelines [3], it was suggested that there was no significant benefit in screening those below 25 years, both in terms of cancer incidence and mortality. As a result, in November 2019, the recommended start age for cervical screening in New Zealand
was changed to 25 years old. The recommended guidelines for initial screening are the same for all women in New Zealand regardless of their ethnicity, perhaps reflecting an equal rather than an equitable stance.

Notably, Māori women have a higher burden of cervical related disease when compared to non-Māori women, but also have much lower screening coverage [1,4]. When detected, cervical disease in Māori is often more aggressive, and is more likely to be fatal [1]. This highlights the importance of having health initiatives that are available and beneficial to all, especially to population subgroups that are already experiencing significant health disparities.

5. Theoretical Perspective

Relevant literature, published from 2003 – 2019, was analysed using some key elements from Leonie Pihama's Mana Wahine Kaupapa Māori theoretical approach [5]. In particular, this focused on the selected core elements of Mana wahine, whānau/whakawhanaungatanga, and Te reo Māori me ōna tikanga. With the guidance of Pihama’s Mana wahine framework, this kaupapa Māori approach allowed the literature to be reviewed from the perspective of Māori, with themes and ideas that are integral to tikanga Māori and importantly, to Māori wahine. The selected elements of the mana wahine model are below defined and explained further.

5.1 Mana wahine

Mana wahine in the context of a Kaupapa Māori approach to the literature review, relates to the inherent authority and autonomy of Māori women evident in the roles, responsibilities, leadership and celebration of Māori women before colonisation, and which requires a ‘repositioning’ in Aotearoa New Zealand today [5]. Pihama examines the impact of colonisation on the self-determination of Māori women which is pertinent to this literature review in terms of the importance of Māori women being supported by the health system to self-determine their reproductive health through early access to cervical screening and effective treatment services. As Mikaere writes,

“The role of [Māori] women as whare tangata means that they play a particularly important role in their whānau, hapū and iwi. The importance of this role is reinforced by Māori cosmology, which recognises the significance of female sexual and reproductive functions in the creation of the world” [8].

Any consideration, therefore, of improving the structure and utilisation of services for Māori women must enhance rather than detract from their right to self-determine their reproductive health, for their wellbeing, as well as for that of the collectives to which they are a part (whānau, hapū and iwi).

5.2 Whānau/whakawhanaungatanga

A key component to kaupapa Māori are the cultural connections and relationships shared with others. This begins at the whānau level and extends beyond to everyday interactions. Whānau is often colloquially translated in English to mean family, but realistically extends well beyond
the nuclear family. In the context of kaupapa Māori, whānau represents a key reciprocal relationship in which support is provided and received [6]. That active relationship is embodied in the term ‘Whakawhanaungatanga’, (the root word of which is ‘whānau’) referring to the act of making whānau-type relationships. This is particularly important in healthcare settings where there is often an expectation for patients to be physically, spiritually or mentally exposed and at a distance from health practitioners, their family and friends.

5.3 Te reo Māori me ōna tikanga
Te reo Māori me ōna tikanga is integral to consider, particularly in the context of healthcare with and for Māori. The phrase refers to the intertwined nature of the relationship between Māori language and mātauranga Māori or the worldviews, values, beliefs, and cultural practices of Māori. These are considered as a whole entity that should be drawn on with regard to healthcare for and with Māori [6]. The term ‘whare tangata’ for example, not only describes a Māori woman’s womb or uterus but it also conveys the profound importance of Māori women as encompassing the ‘house of humanity’, the ability to carry life within and continue whakapapa from the past into the future [9].

With around 170 new cases registered per year, cervical cancer is a significant burden to the women of New Zealand [1]. It is also the fifth most commonly registered cancer for Māori women [1]. Since the introduction of the National Cervical Screening Programme (NCSP) in 1990, there has been a substantial reduction in the number of cervical cancer cases. From 1990-2016, the overall rate of cervical cancer new diagnoses dropped from 13.9 cases per 100,000 population, to 6.4 [1]. Furthermore, the total number of cervical cancer recorded deaths has almost halved from 110 in 1990, to 55 in 2016 [1].

Despite these positive outcomes following the NCSP initiation, cervical cancer remains one of the most common cancers for Māori women [10]. There are inequities in disease incidence, detection, survival, and likely even in treatment of disease [10,11]. Data from Ministry of Health (2016), tells us that when compared to non-Māori New Zealand women, Māori have 1.8 times the age-standardized incidence of cervical cancer and 3 times the age-standardized mortality [1]. In addition, Māori are less likely to have had a smear in the 6–42 months prior to diagnosis and as a population are less likely to partake in regular cervical screening [2]. Māori are also 1.4 times more likely to be diagnosed at a late stage of disease (stage 2 or above) regardless of their screening status [11].

7. Element 1: Mana wahine
Existing research has significant inadequacies in exploration of the experiences and perspectives of Māori women. Mana wahine is an theoretical approach or outlook that describes the intertwined experience of being both Māori and female [5]. A lack of awareness or understanding of this perspective in healthcare institutions can mean that unique experiences of these women are either ignored or seen as insignificant in relation to their health. In reality,
a holistic approach to healthcare that is inclusive of the mana wahine worldview can more adequately address the health needs of Māori women, whilst also delivering rights-based care (derived from Te Tiriti o Waitangi).

A significant barrier to Māori women receiving timely and appropriate services in the health system are structural barriers such as sexism and racism and the failure to enhance the self-determining right of Māori women and families with regards to reproductive healthcare. Doctors and nurses, for example, can have an integral role in challenging systemic sexism and racism and affirming the right of Māori women to make informed decisions as to their reproductive health. Unfortunately, there is some evidence to suggest that even after cervical screening, some Māori women patients may receive care that is suboptimal to that of non-Māori, possibly a consequence of structural barriers such as racism and sexism. Priest & Sadler (2007), found that after abnormal bleeding or results of an abnormal smear, Māori patients were more likely than non-Māori to experience treatment and diagnostic delays [13]. However, they did note that within each subgroup (defined by stage, age, ethnicity, histological type) a maximum of 17% of women overall actually received a delay in follow up, and that these delays were more common in early stage disease [13]. Nevertheless, this suggests that the NCSP and healthcare system may be defectively serving and further disadvantaging Māori women. It also highlights the following point; for a public health initiative to be beneficial, it must be set up with an equitable approach, and follow-up should occur in a timely and just manner.

Discrimination associated with cervical screening is also important to be wary of and may in fact be more likely to be experienced by Māori women. Māori women with previous exposure to drug use, sexual abuse, sexually transmitted infections and possibly even pregnancy terminations, may be more vulnerable to discrimination by poorly equipped and trained health practitioners [14]. These issues may be somewhat responsible for reduced screening in communities, skew the results of research, or in the worst cases, the thought or act of cervical screening may result in increased psychological harm to the affected individuals [14]. It is in these situations that other methods of cervical disease detection may prove to be particularly beneficial.

Cultural shyness or whakamā is a commonly depicted theme in Māori health research. In part, expressions of whakamā can arise due to perceived vulnerability or disempowerment that may accompany sensitive examinations. When asked about this in greater detail, one patient described how many women find it difficult to hand over both their mental and physical wellbeing to a primarily European system. She went on to say that the degree of disempowerment faced depends on the quality of the system and healthcare providers [15]. This stresses the importance of having healthcare that is set up in a manner that identifies, respects, understands, and acts to address ones culture and experiences. Interestingly, it was conveyed that as rapport and whakawhanaungaata are increased, whakamā decreases [16]. The importance of whakawhanaungaata and whānau when combatting screening hesitation will be explored further in element 2.
Notably, Māori resistance to screening is often solely interpreted as whakamā, or as a fixed issue within the individual or subpopulation. Unfortunately this stance fails to recognise screening hesitancy as something that can be altered and downplays the extent to which systemic changes and improvements in cultural competency can have an effect [17]. Simply by labelling Māori as whakamā or non-compliant, health providers and organisations may feel a reduced sense of responsibility for poorer uptake of screening in Māori [17]. Instead of viewing these women as ‘problematic’ or non-adherent, the delivery of the screening programme needs to be shaped in a way that attends to cultural needs and includes features that prioritise Māori engagement [17].

A health initiative that is considerate and understanding of a mana wahine worldview, is one that more adequately considers multiple components of Māori women’s health. Incorporation of mana wahine not only allows for development of a greater understanding of the female Māori perspective, it also helps to prevent and reduce inequities in care. If screening is not as accessible or realistically able to be utilised by Māori, then existing disparities between Māori and non-Māori will only continue to increase. This can occur despite emerging positive effects such as an overall decrease in cervical cancer incidence and mortality [11].

8. Element 2: Whānau/whakawhanaungatanga

Involving the whānau and engaging in whakawhanaungatanga during consultations makes a substantial difference to women’s experiences with cervical screening [17]. If a patient is comfortable and has a strong relationship with her clinician, then barriers of the cervical screening process are more easily broken down. Furthermore, strong patient-clinician relationships facilitate open discussion, reduce feelings of whakamā, and can help to diminish any perceived power imbalance between practitioner and patient [14]. Unfortunately, when Māori patients were asked about their experiences during gynaecological examinations, culturally safe clinics and staff were reported as exceptions [17]. However one participant researched by Cook (2014), reflected on her excellent relationship with her practitioner and how this helped her to engage and participate further;

“She [practitioner] also invited me – whether I wanted a full sexual history and then a full sexual check and so I thought why not, part of the experience and the only reason I said yes to that was because she had established that relationship and we had some sort of rapport going. I had some control over it [entire consultation and examination] and I haven’t felt in control in the past.” [17]

The above extract demonstrates how whakawhanaungatanga can directly lead to a positive experience for patients. We know that when patients are free of feelings of discomfort or have strong, developed relationships with their healthcare providers, that they are more likely to disclose relevant sexual and reproductive information or engage in future health interventions. They are also more likely to recommend screening to their whānau, and to continue to engage in their own regular screening [10]. Ultimately, without engagement and open communication
with healthcare providers, the health of patients’ is compromised. It is therefore vital to develop rapport and maintain an ongoing connection with patients.

Lovell (2007), indicated that there is a strong association between effectiveness of a screen taker and their cultural knowledge and communication skills, particularly from the perspectives of Māori patients [15,17]. Additionally, Cram (2003), found that many of the difficulties that did exist between clinician and patient could be overcome if the patient had a support person who could speak on their behalf [16]. This emphasises the importance of whānau as a source of physical and mental support to draw upon.

When asked about why they were attending screening, many Māori reported that they first heard about screening through either health professionals, their friends or their family [15]. This emphasises the idea that healthcare providers who make an effort to build strong relationships with their patients are likely to have a lasting positive impact on the health decisions made by the patient. Furthermore, this identifies the essential role of whānau in decision making. One woman stated that her reasoning for screening was to encourage and promote her daughters to do the same, and so that she could continue to be around for them [17]. This suggests whānau may be a useful motivating factor to increase Māori women’s participation in the screening process. This could lead to networking, where women remind one another to get screened, and feel more motivated to have their own screening for the sake of their loved ones.

When asked about their healthcare experiences, the desire for continuity of care emerges as a common theme for both Māori and non-Māori [18]. It refers to the ongoing relationship between a patient and practitioner that extends beyond a specific episode of illness or disease [18]. Ideally, patients get to form a relationship with a health practitioner and continue to build on that relationship and to see that particular practitioner overtime. Not only does this allow the practitioner to learn about what is important to the patient over multiple visits, it allows for development of long-term health goals, and means whakawhanaungatanga is more easily established [17]. Unfortunately in some areas (particularly rural areas), turnover rates or numbers of locum medical staff are high, meaning that continuity of care may be unrealistic and that perhaps political efforts or incentives need to be made to encourage staff to stay [14]. In these places the option for choice of practitioner is often limited, and it is not uncommon to be expected to undergo screening with a practitioner the patient has not yet met [17]. There is also increasing research suggesting that Māori may be more accepting of cervical screening and other sensitive examinations if the option of a Māori practitioner was more accessible. While efforts have been made in recent years to increase the numbers of Māori in the healthcare professions, Māori still remain underrepresented as nurses and doctors [17].

When Māori cancer patients were asked about details of their journey, many highlighted the importance of whānau involvement and how that helped their healthcare become more holistic [19]. They said that whānau supports ensured multiple elements of their health were addressed, including; wairua (spiritual), hinengaro (psychological), whakawhanaungatanga (connections), and rongoā Māori (Māori therapeutics), in addition to their te taha tinana.
(physical health) [19]. It was reported that for many Māori, the label of a diagnosis often extends beyond the individual, to include the entire whānau and therefore the healthcare journey needs to be inclusive of the entire whānau as well [16].

Both the establishment of whakawhanaungatanga and the inclusiveness of whānau in an individual’s healthcare can be important to reduce barriers to cervical screening. If patients perceive these fundamentals to be lacking, then this may affect their willingness to partake in the NCSP. Relevant literature indicates that efforts to increase practitioner-patient rapport, whānau related support and motivation, continuity of care, and holistic healthcare are promising areas of focus for increasing positive Māori experiences and engagement with cervical screening.

9. **Element 3: Te reo Māori me ōna tikanga**

Substantial research and data demonstrates that Māori women have a greater burden of cervical related disease in comparison to non-Māori age matched controls [1]. It is therefore important to assess what factors are leading to these results and how we can make adaptations to reduce these health disparities. Māori women are less likely to attend regular screening and are more likely to, in general, have a delayed presentation to health practitioners [19]. Reasons for lack of engagement in these services are affected by racism and may be put down to an individual’s laziness, or lack of interest in healthcare [17]. Not only does this view breach human rights, it means that other causes for poor attendance are less likely to be acknowledged or addressed.

When Māori women were asked about their experiences with cervical screening, one common theme that arose was ‘inadequate cultural competency’, which patients described as having an effect on the likelihood of them returning for their next appointment [17]. While some had bad experiences themselves, others recalled stories from their whānau or wider networks that then shaped their own healthcare decisions [16].

When asked about barriers to care, Māori health providers and staff were reported to have helped to make a difference in both the accessibility of screening and the screening experience altogether [10]. Of course, culturally safe healthcare should not be the sole responsibility of Māori doctors and nurses, nor be dependent on their availability [17]. In general, many non-Māori practitioners were reported to be lacking in areas of cultural responsiveness and it was concluded that they required more comprehensive cultural training [17]. The positive experiences with non-Māori practitioners were said to be with those who took time and did not rush to talk about the purpose of the consultation, those who were able to put their patients at ease, and those who could to reciprocate and explain to their patients with some understanding of tikanga and te reo Māori [16].

Importantly, some patients voiced that they were uncomfortable and felt uncared for, yet tolerated the consultation and procedure anyway [17]. Unsurprisingly, this was likely to affect
their future clinic attendance and their overall perceptions of healthcare in New Zealand. The discomfort experienced also highlights the idea that someone may continue with screening even when services are dissatisfactory, and we therefore cannot assume that screening attendance is equal to quality and competent delivery of that service.

For some, the exposure required in sensitive examinations, comes with a significant emotional and cultural cost, and is less likely to be considered an acceptable practise. However, it was found that women with greater exposure to reproductive and sexual healthcare services, were more accepting of the practise and more likely to be at ease during a sensitive examination [15]. This included women who had developed increased exposure through a variety of means, such as age, sickness, childbirth, or experience working in healthcare. This stresses the importance of having health professionals that understand and acknowledge tikanga Māori. It also informs us that comfort of Māori in these situations is malleable and has an associated degree of socialisation [15]. Ultimately this means that in addition to making culturally inclusive systemic changes, normalisation of cervical screening and the use of targeted advertising may be beneficial. These could help to minimise screening discomforts or any arising dissonance due to conflict between healthcare and culture.

Furthermore, there is mixed research regarding the cultural inclusiveness and availability of cervical related health information. Pamphlets that focus on screening information and interpretation of false positive and false negative results are available in Māori and Pacific Island languages, but are limited or non-existent in other languages [15]. Additionally, the use of public advertising campaigns and television have been reported to have been hugely successful at raising awareness and at bettering communication between healthcare professionals and patients [10].

Talei Morrison was one woman diagnosed with late stage cervical cancer who was hugely disappointed at the lack of educational material that connected Māori wahine with cervical screening. As a result, she launched the “Smear Your Mea” campaign (2017), aimed to encourage cervical cancer screening and awareness among Māori. The campaign lead to the opening and commencement of smear testing stations at Te Matatini Kapa Haka and resulted in the Northern rōpū Muriwhenua having 100% screening coverage, with aims to extend this further [17]. Unfortunately, despite the Ministry of Health reporting a focus on Māori and Pacific women, there has been a lack of consultation with those running the “Smear your Mea” campaign.

According to Maar and colleagues (2013), availability of palatable and culturally inclusive health information is vital for encouragement and engagement in cervical screening. Individuals with less information or understanding of the process and the need for cervical screening, are less likely to take part in the NCSP [14]. If patients are in an environment where they are uncomfortable, or hesitant about screening in the first place, they may not feel empowered to ask health related questions or to ask for clarification regarding the procedure. Altogether this can contribute to a population of misinformed patients who are unaware of the
importance of cervical screening, through no fault of their own, but rather through inadequate provision of information by health services.

All health professionals, both Māori and non-Māori, need to possess an understanding of tikanga Māori and to be able adjust elements of their care to cater for a patients’ cultural identification. We need more Māori-relevant and culturally inclusive public health initiatives that inform women about cervical screening and normalise its process. Furthermore, we need to ensure patients feel empowered to ask questions, gain clarification, and develop an interest in healthcare. Based on the research and conclusions drawn above, it can be deduced that efforts to improve te reo Māori me ora tikanga in relation to cervical screening are likely to increase Māori engagement in the NCSP and that this ultimately may help to minimise the gaps between Māori and non-Māori that we see with this disease.

10. HPV Testing, Self-Testing, and Vaccination

While this review has primarily focused on cervical screening, it makes sense to consider and discuss other methods of cervical disease prevention. One of the most important breakthroughs in cervical cancer research was the discovery of the role of human papillomavirus (HPV) as a precursor to virtually all developments of cervical cancer [21]. Both men and women can be carriers, transmitters, and victims of infection, but are at greater risk of infection if they were of earlier age for their first sexual relationship, have a high number of sexual partners, or if their sexual partners are high risk individuals [21]. The discovery of the connection between HPV and cervical cancer means that prevention of transmission, and testing for HPV are effective targets to prevent development of cervical cancer.

After indicating a strong correlation between positive HPV testing and disease severity, HPV detection assays have been proposed as a useful triage for patients with cervical smear results that are abnormal, or of undetermined significance [21,22]. In addition, HPV screening as a primary measure has a strong potential due to better detection of pre-cancerous changes, and less frequent testing requirements (every 5 years rather than every 3) [23]. Changes to make HPV testing the primary screening measure in New Zealand are set to take place in 2021 [23]. The reality of less frequent testing may be of particular importance to individuals who, for a variety of reasons, are more hesitant to cytological screening [14]. Furthermore, future opportunities for self-swab HPV testing are currently being investigated in terms of effectiveness and feasibility. These may evolve as a future method of testing in New Zealand and be particularly effective for minimising disparities if it encourages participation of under/never-screened Māori women [24]. Research by Adcock and colleagues (2019), used focus groups and surveys to investigate the potential acceptability of HPV self-testing for under/never-screened Māori women. They found that when these women were asked about participation with self-HPV swabbing, around 73.3% said they were likely or very likely to partake in screening with this option and just 4.79% of these said they would refuse self-HPV testing [24]. This indicates that if there is availability of self-HPV swabbing, there could be a
dramatic increase in screening engagement from under/never-screened Māori women. This intervention could provide a pathway to bypass many of the barriers Māori women face with cervical screening, and be a remarkably successful step in engaging those who are currently not participating in regular cervical screening. Importantly, the introduction of this method of testing does not mean culturally competent care and delivery of services can be ignored, as it is the right of Māori women to have this care available and to if needed, enter a treatment programme that addresses and meets their needs.

A vaccine has been developed, as a primary preventative strategy, against nine types of HPV that are responsible for 90% of HPV related cancers and 90% of HPV related genital warts [11,20]. In 2008 these vaccines were offered for free in New Zealand to girls up to 20 years old. In 2017 this offer was extended to males and females aged 9-26 years old [23]. If high vaccination coverage is achieved, in conjunction with a switch to HPV based screening, then reductions in cervical cancer incidence are expected to substantially reduce. The shift from cytology based to 5-yearly HPV screening is predicted to reduce cervical cancer incidence by 17% for Māori, and 14% for non-Māori New Zealanders [25]. When this change in screening is combined with HPV vaccination (at its current level of participation), the combined reduction in cervical cancer incidence is 58% for Māori, and 44% for non-Māori [25]. A key reason for this considerable decrease for Māori is because Māori girls have higher vaccination uptake than non-Māori-non-Pacific girls (60% and 47% respectively) [25]. Despite this, Māori incidence of cervical cancer is predicted to remain 2 times higher than that of non-Māori [25]. This stresses the importance of prioritising and continuing to promote Māori engagement in the vaccination programme.

11. Conclusions
Since the commencement of the National Cervical Screening Programme (NCSP) in New Zealand (1990), there have been substantial reductions in both the incidence and mortality related to cervical cancer [1]. Despite this, Māori are still disproportionally burdened by cervical disease [1]. While the disparities are clear, the reason for these statistics is more difficult to decipher, but appears to be multifactorial. It could be that other comorbid health conditions or habits (such as diabetes, cardiovascular disease, or smoking) have an impact on the development or aggression of cervical cancer. It could also be that the lower rates of cervical screening observed among Māori have a significant impact on development and progression of disease. If this is true then it is important to assess why Māori are less likely to be screened and make systematic changes aimed to fix that. Another option is that there are failures within the screening and treatment system that mean Māori are not receiving healthcare that is equitable to that of non-Māori. An example of this is the increase in treatment delays that have been observed for some Māori patients [13]. Using Leonie Pihama's Mana Wahine Kaupapa Māori theoretical approach, selected key elements were used to analyse existing data and research. The core elements were mana wahine, whakawhanaungatanga/whānau, and te reo Māori me ōna tikanga.
It was found that there are significant barriers associated with the current national screening programme that contribute towards lower participation of cervical screening in Māori. Mana wahine was emphasised as a unique experience of Māori women that needs to be recognised, understood, and incorporated into their healthcare. Failure to do so means that Māori needs are less likely to be addressed and that Māori therefore have reduced access and quality of healthcare services. Recognition of the mana wahine worldview allows for better identification and understanding of the barriers that prevent Māori from attending healthcare clinics and engaging in the NCSP. Strongly developed relationships between healthcare professionals and their patients can help to combat many of these feelings, and therefore leave patients experiencing less discomfort and being more willing to undergo sensitive examinations [17].

Gathering the desire to partake in screening can be drawn from multiple sources. These are essential for normalisation of screening and to help break down cultural barriers. These sources include the current and previous relationships between patients and healthcare providers, advertisements and available education, and the whānau of the individual [15]. It is therefore essential to ensure that these parties are accurately and adequately informed. It is obviously also important that other whānau members are receiving care that they consider to be culturally correct, so that the feedback that they are passing on is positive and encouraging.

Overall, there is a significant amount of overlap between the 3 elements discussed in this review. When addressed together, they strive to make healthcare more inclusive, accessible and equitable. This research indicates that a lot can be done to increase participation and overall wellbeing of patients through the organisation and delivery of healthcare services. While new preventative and screening methods are soon to apply here in New Zealand, it should be emphasised that there is more to healthcare than simply having a good test for detection of disease. HPV vaccination and screening are promising future initiatives, but need to be equitably available and utilised by Māori. Results of these tests then need to be interpreted and incorporated into a system that gives precedence to the needs of Māori. That means that all of the elements discussed in this review will continue to be relevant, regardless of changes to screening methods.

11.1 Implications
The literature reviewed highlights the importance of all healthcare providers having an understanding of Māori culture and focusing on more than just the direct outcome of a consultation. This means resources should be spent on improving cultural competency and education of those working in healthcare, and a greater representation of all ethnic and social backgrounds should be strived for within these professions. There is also promising evidence to suggest that advertisement campaigns and normalisation of cervical screening can help to reduce stigma, and hesitancy in relation to sensitive examinations [20]. Therefore, targeted advertising should become a prioritised method to raise awareness and to increase screening engagement.
Apart from HPV vaccination, early detection and treatment of pre-malignant changes is the best way to prevent cervical cancer. Knowing that Māori are more likely to develop cervical cancer and are more likely to die from cervical disease (even compared to non-Māori detected at the same disease stage), it makes sense for detection and treatment guidelines to be different from that of non-Māori. However, current policy seems to have adopted a ‘one size fits all’ approach, where Māori and non-Māori are lumped together despite their differing risks. The results included in this research suggest that it would be fitting to implement systemic changes so that recommendations more adequately meet the health needs of Māori. This could include reconsideration of the proposed start age, frequency, and thoroughness of cervical screening for Māori. It also makes sense to continue to target Māori with preventative measures; such as high coverage with HPV vaccination.

**11.2 Future Research**

Before implementing any changes to screening commencement for Māori, it would first be valuable to determine whether this would be a significantly beneficial action. Research could therefore be carried out to make predictions regarding this proposition, and to see how Māori may benefit at both individual and population levels.

Effectiveness of advertisements and awareness based campaigns could be evaluated to determine exactly what features are important to include and which are most successful. Results from this research can then be used to refine future initiatives and hopefully continue to engage people in the NCSP.

Lastly, the effect of improved cultural competency can be evaluated overtime as new health professionals and more Māori representatives in those areas emerge. Results from this may be encouraging for Māori patients to hear and help to counteract any negative experiences or stories that they may have heard. It may also serve as feedback to educators regarding the effectiveness of their teaching and the practicality of those suggestions in the workforce.
12. References


