Te Whatu Ora
Health New Zealand

HPV testing

the new primary screening pathway for cervical cancer prevention

Starting on 26 July 2023, a new screening process to prevent and detect cervical cancer will begin. The following article from **Te Whatu Ora** explains the new HPV screening process, including how midwives can become involved in offering screening as the phased implementation rolls out. The College will work with the National Screening Unit and Te Whatu Ora to advocate for the resources midwives need in order for the profession to offer testing, including specific funding, training to use the relevant systems and referral pathways into cytology and colposcopy.

Human Papilloma Virus (HPV) testing will become the primary cervical cancer screening test in Aotearoa New Zealand from late July 2023. HPV primary screening offers up to 60 to 70% greater protection against the development of invasive cervical cancer, compared to cytology-based screening alone (Ronco et al., 2014). Testing for the HPV virus is more sensitive and will lead to better detection of high-grade cervical changes which can cause cancer. Because the test involves a vaginal swab rather that a speculum examination, it is anticipated that more people will participate in regular screening.

The incidence and mortality rates from cervical cancer are expected to decline over time with HPV testing. However, initially the incidence of cervical cancer and demand for colposcopy services may increase due to the higher sensitivity of the HPV test. By 2035, the incidence and mortality rates from cervical cancer are expected to reduce by 32% and 25%, respectively, compared to 2018; this is equivalent to the prevention of 149 new diagnoses and 45 cervical-cancer related deaths in New Zealand.

Implementation of the HPV test, and in particular the option of self-testing, will empower participants with choice. The screening test is more acceptable to many people and is expected to increase uptake in those previously reluctant to screen. This will lead to more equitable outcomes.

The National Cervical Screening Programme (NCSP), one of the programmes within the National Screening Unit, is leading the implementation of the new test, clinical pathways, training, resources and NCSP-Register.

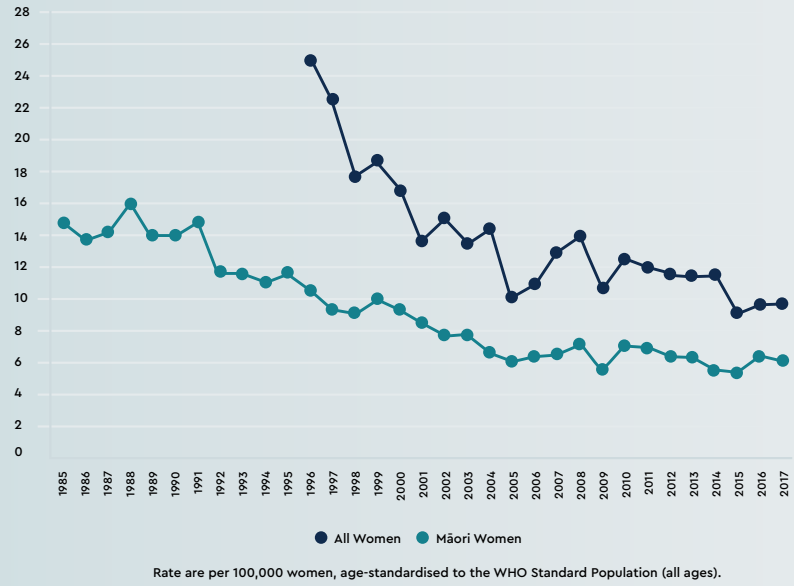
Midwives' scope of practice already includes cervical screening and this will remain the case with the new screening clinical pathway. Here are the answers which we hope will give our midwives a better understanding of the issues.

Q: Has the current cervical screening programme been a success?

New Zealand's National Cervical Screening Programme was established in 1990 following the 1988 Inquiry Into Allegations Concerning The Treatment Of Cervical Cancer At National Women's Hospital (the Cartwright Inquiry). The Cartwright Inquiry was a significant event for public health in Aotearoa, resulting in the establishment of the Health and Disability Commission and Commissioner, the development of a legislated Code of Patients' Rights and the establishment of independent national ethics committees. It also recommended the urgent implementation of a nationally planned, population-based cervical screening programme – now the NCSP.

Since the introduction of the NCSP, cervical cancer rates have reduced dramatically, and the gap in the incidence between Māori and "all women" has reduced. However, there remain persistent and unacceptable inequities in cervical cancer incidence and mortality between Māori, Pacific and non-Māori/non-Pacific (Fig. 1).

FIGURE 1. AGE-STANDARDISED CERVICAL CANCER INCIDENCE FOR MĀORI AND ALL WOMEN, 1985–2017



Rate are per 100,000 women, age-standardised to the WHO Standard Population (all ages).

Q: Why change?

There is more work to be done. Around 180 women are diagnosed with cervical cancer every year in Aotearoa, and about 60 die. The overall decline in cancer incidence has stalled over the past few years. Furthermore, equitable outcomes are yet to be achieved, with lower rates of cervical cancer experienced by non-Māori/non-Pacific ethnic groups. Achieving equity will require the health system to improve the accessibility and acceptability of screening and treatment for Māori and Pacific people.

The World Health Organization's goal to eliminate cervical cancer states that all countries must reach and maintain a cervical cancer incidence rate of below 4 per 100,000 women. New Zealand's current rate is 6.3 per 100,000 and is expected to fall to 4.1 by 2032. Only increased vaccination against HPV will get us past the 4 per 100,000 threshold set by WHO.

HPV testing offers a new and better alternative as a primary screen, compared to the current test (previously known as a "smear test"). Increased uptake of screening, alongside higher rates of HPV vaccination, are essential to achieve equitable elimination of cervical cancer in New Zealand.

Q: What is HPV?

HPV is a virus that infects the skin and mucous membranes. It is passed on by intimate skin to skin contact during sexual activity.

There are over 150 types of HPV that can live on the body. Most are not of concern, present no symptoms and are dealt with naturally by the body's immune system. About 90% of people clear the virus within 2 years of infection.

However, 14 types can cause cancer, and are the cause of over 95% of cervical cancers. HPV primary screening tests for all of these. Of the 14 oncogenic types, two types – 16 and 18 – account for over 70% of cervical cancers. While many people have HPV infections for a short time, it is persistent infection with oncogenic HPV that is the risk factor for cancer.

Q: What will the new test do, compared to the current test?

This new screening method will test for the presence of 14 strains of HPV which can lead to the development of cervical cancer.

The current speculum (cytology) test looks for abnormal cells or cell changes in the cervix that could lead to cervical cancer, so people at increased risk are identified only once changes have started.

The HPV test looks for the virus that subsequently could cause changes. So, it allows earlier intervention before cell changes occur. Results will show either: HPV not detected; HPV 16 or 18 detected; or HPV "Other" detected (a strain that is oncogenic but not 16 or 18).

This will determine if the participant needs a further follow-up test. The clinician who has taken/arranged the HPV swab will need to:

- refer people with HPV 16 or 18 detected (the highest risk types) to colposcopy
- undertake or arrange for a speculum examination for cytology for those who have HPV "other" detected.

Q: Are there any other differences between HPV and cervical cytology testing?

HPV testing is more sensitive than liquid-based cytology testing. It will lead to the detection of more high-grade abnormalities, via the initial detection of HPV. Among those women who have HPV testing, 10% will require further testing, either cytology in primary care or colposcopy.

The vaginal speculum-based test will remain important in the clinical pathway so it is important to explain to people having an HPV test that they may need to return for a vaginal speculum examination for cytology.

HPV testing will find more pre-cancers and prevent more cases of cervical cancer, supported by the speculum and colposcopy tests within the pathways.

Q: How do you take the HPV test?

It is a simple vaginal swab test. The swab is inserted into the vagina and gently rotated while touching the vaginal walls, so there is no need to find the cervix.

Q: Can the person do the swab themselves?

Yes. The test does not need a vaginal speculum exam and the participant can do the swab test in private in a clinical setting or take the test kit home and do the swab there, if this option is supported by their health provider.

Health providers whose scope includes cervical screening will provide sufficient information to gain informed consent and explain how to self-take the test. The health provider will then be responsible for clinical oversight (i.e., sending the sample to the lab for testing and contacting the participant if any follow up is required). Central mailouts of kits is not within the initial scope of the Project. The Project team is actively working with midwives and the wider sector to support the transition to HPV screening for cervical cancer prevention.

A self-test is as accurate as a clinician-taken sample in determining the presence of HPV.

Self-testing is not the only option available from late July 2023. If women or people prefer, they can opt to have a screen-taker do the swab test or do a vaginal speculum (cytology) test. If they choose to have a speculum-based test, the sample will first be tested for HPV. If the virus is found, the same sample will automatically be sent for a cytology test.

People with symptoms such as vaginal bleeding after sex (when they are not menstruating), and those who have had a high-grade change in the past who have not returned to the regular screening interval should not do a self-test. They need a clinical examination and cytology test.

Q: What is recommended if the screening due date comes up during pregnancy?

Both HPV self-testing and cytology testing are safe in pregnancy. Cervical screening, with the HPV test, or via liquid-based cytology, should be considered part of routine antenatal care for those who are due or overdue for their screening.

Midwives' scope of practice already includes cervical screening. The NCSP will work with the New Zealand College of Midwives to ensure the changes to the test and the clinical pathways are well understood and that practical issues are addressed, in order that midwives feel confident and supported to offer screening.

All pregnant women who test positive for HPV 16 or 18, or who have high-grade cytology results, should be referred to colposcopy. This should not be delayed until after giving birth. The colposcopy visit is important to exclude invasive cervical cancer which is associated with increased risk of maternal morbidity and poor pregnancy outcomes. Biopsy will only be done for suspected invasive disease. High-grade changes will be treated after giving birth.

Q: Will this improve screening rates?

Because the test is less invasive and the swab can be self-taken in privacy, more people at risk of cervical cancer are expected to engage with screening.

Q: What happens to the screening interval?

The screening interval will change from the current 3 years to 5 years for those who return a negative test because the HPV test is a more sensitive predictor of high-grade changes. The chance of having a high-grade change 5 years after a negative HPV test is lower than 3 years after a negative cytology test. The 5-year screening interval is the same as other countries that have introduced HPV screening, including Australia, the UK and the Netherlands.

Q: What is changing with the NCSP-Register?

To enable HPV primary screening, a new NCSP-Register will be implemented. The new NCSP-Register will be a population-based Register sourced from NHI data and will now also include those who are eligible for cervical screening but have never had a test. There will be an opt-off option. The Register is currently set up to include those who are 25–69 years old and coded as 'female'. This means that those who have a cervix but are not coded as 'female' (for example trans men) must be manually entered into the register. Midwives need to be aware of this data issue when providing care for trans people and support them to be added onto the NCSP-Register.

Q: Will there be any specific training in the new primary screening requirements for midwives?

Training in the form of e-modules is being developed for health professionals. These will provide information on the HPV virus, the HPV test and clinical pathways, and how to communicate effectively with participants about HPV primary screening including

conversations about results. Additional educational resources will be developed to support specific learning for the different roles involved in cervical screening.

Q: Where does immunisation fit in?

HPV vaccination combined with screening provides the best protection from cervical cancer. The first line of defence against cervical cancer is prevention by safe, effective and proven HPV immunisation which is free for all people from ages 9 to 26 years old. The second line is maintaining regular cervical screening.

Vaccination is vital for Aotearoa to achieve the World Health Organization's goal to eliminate cervical cancer as a public health problem by 2030. The WHO target is for a 90% vaccination rate by the age of 15.

Those who are fully immunised against HPV still need to continue cervical screening, since the vaccine does not cover all oncogenic HPV types.

Q: How is equity factored into the project?

Our Te Tiriti o Waitangi obligations are fundamental to the design of the new programme, including achieving equity. Equity recognises different people with different levels of advantage require different approaches and resources to get equitable health outcomes. The strategy for notifying people that they are due for screening and follow-up will integrate more closely with community-based providers including screening support services. This includes improved resources and campaigns developed in collaboration with Māori and Pacific stakeholders.

Active protection must include prioritisation of access to screening services and follow-up for Māori, Pacific and other groups who face barriers to screening. Our Te Tiriti o Waitangi and Equity strategy means reaching and supporting the approximately 40% of people who are not currently well-served by the NCSP programme. Supporting midwives to offer HPV screening will greatly assist in achieving equity.

For participants there will be a choice around the type of test they can do, and they can complete the initial HPV screen in a setting more comfortable for them. In order for participants' beliefs and values to be understood and supported in primary and community care, training will include key cultural safety considerations, especially Māori and Pacific priority groups. Researchers in Aotearoa have established that the test itself will be equity-enhancing, as the embarrassment and discomfort of a speculum examination is a major barrier in the current cytology-based programme.

Q: How will HPV primary screening be rolled out?

The rollout will be achieved in three Phases. Phase one starts on 26 July 2023 when HPV testing becomes Aotearoa New Zealand's primary screen for cervical cancer prevention.

The First Phase from late July to August will be called the Foundational Step, when all participants will be able to choose a self- or clinician-assisted HPV primary screening test, or a speculum test. New clinical pathways and the new NCSP-Register will be rolled out. There will be a particular focus on promoting the screening to Māori and Pacific participants and increasing screening in the under- or unscreened populations.

Expanding Reach is the Second Phase (August to December) and will focus on getting more people onto the screening pathway through notifications, including under- and unscreened populations not enrolled in primary care.

Full Benefit, the Third Phase (December 2023 to March 2024), is when the full future vision of HPV primary screening will be achieved. A more complete pool of participants will be encouraged into screening, increasing our screening coverage. What we will achieve:

- HPV testing as the primary screening test for cervical cancer prevention – HPV testing will lead to increased and more equitable uptake of screening. It will find more pre-cancers and prevent more cases of cervical cancer, supported by the speculum and colposcopy tests within the pathways
- New NCSP-Register – A single source of truth for screening records and individual schedules
- New pathways – Embedding more choice and flexibility into screening, removing barriers to entry and better supporting and increasing equitable outcomes for Māori and Pacific people
- Additional workforce and training – The aim is to support an expanded and more diverse screening workforce. Accredited screen-takers/GPs/midwives can continue to do the speculum-based LBC test as well as the HPV test. Registered Nurses can oversee the HPV swab test with training. ■

References available on request.

How do you take the HPV test?