NATIONAL CERVICAL SCREENING PROGRAMME

‘TODAY AND INTO THE FUTURE’

A Strategic Plan for 2009 – 2014

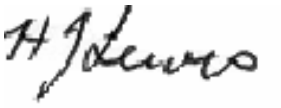
Foreword

Today and into the future outlines the way in which the National Screening Unit (NSU) will work over the next five years to maintain and improve the safety, effectiveness and quality of the National Cervical Screening Programme.

High quality and accessible screening and achieving equity in health/whanau ora for all people are fundamental to the NSU's strategic vision. Accordingly, a key priority of this strategic plan continues to be not only increasing the programme's coverage for all women, but achieving equity in access to cervical screening across all population groups. As reflected in the Ministry of Health's Statement of Intent for 2009 - 2012, work will continue to focus on reducing the disproportionate number of Māori women developing and/or dying from cervical cancers.

Over recent years the NSU has developed comprehensive quality processes and collaborative relationships with NCSP service providers. These will continue to be built on.

Recent years have also seen significant developments in cervical cancer prevention. The advent of the cervical cancer vaccine as a primary prevention strategy, as well as new technologies in cytology and high-risk human papillomavirus detection are changing the face of cervical screening – improving efficiency and effectiveness as well as our ability to categorise each woman's risk. This strategic plan looks to how the programme can refine existing services as well as adapt to incorporate the benefits of newer technologies that will improve cost-effectiveness and further reduce the burden of cervical cancer for New Zealand women.



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A VISION FOR THE NATIONAL CERVICAL SCREENING PROGRAMME IN 2014

The following picture represents the five year vision for the programme. By 2014:

Further improve health outcomes	The NCSP will aim to: • demonstrate a decrease in the incidence of cervical cancer by at least 70% compared to 1990 • demonstrate a decrease in cervical cancer mortality by 80% compared to 1990
Achieve coverage targets	• have increased coverage to at least 80% of all population groups
Achieve equity	• have no significant variation in coverage between population groups
Strengthen collaborative relationships	• have strengthened regional coordination between NCSP providers
Effective performance management	The NCSP will continue to: • comprehensively monitor and evaluate the programme and to update and streamline these processes • have regularly reviewed standards for providers of NCSP services • have comprehensive, regularly updated clinical management guidelines
Continuously improve quality/value for money	The NCSP will: • be using liquid based cytology for 100% of cervical screening tests • be using HPV testing as an appropriate adjunctive test • have supported laboratories to automate their testing process • have a highly developed and effective NCSP-Register acting as a key monitoring tool for NCSP, providers and women • have further developed its highly skilled and specialised workforce • support external reviews of the NCSP and implement recommendations • have reviewed the effects of HPV vaccination on cervical screening and implemented changes required • have an age range and screening interval updated to reflect the latest evidence, the new HPV vaccination and HPV testing era • be operating a robust research and development programme.

ABOUT THE PROGRAMME

The overall aim of the National Cervical Screening Programme is to reduce the incidence and mortality of cervical cancer among all New Zealand women by the detection and treatment of precancerous squamous cell changes, through the coordination of a high quality, population based screening programme.

The NCSP was established in 1990 and is governed by the Health (National Cervical Screening) Amendment Act 2004. Following the introduction of the NCSP, a marked decrease in the incidence of cervical cancer occurred as the number of women having regular cervical smears increased. The mortality rate of cervical cancer declined even more rapidly, reflecting both improvements in cancer treatment as well as the fall in incidence.

However, every year approximately 160 women continue to be diagnosed with cervical cancer in New Zealand and about 60 women die from it. About half the women who develop or die from cervical cancer have never been screened, and about a third have only been screened irregularly and infrequently.

More than 1.4 million women are enrolled in the NCSP with 40,000 new enrolments per year. Over 450,000 smears are taken annually and processed by contracted community and hospital laboratories.

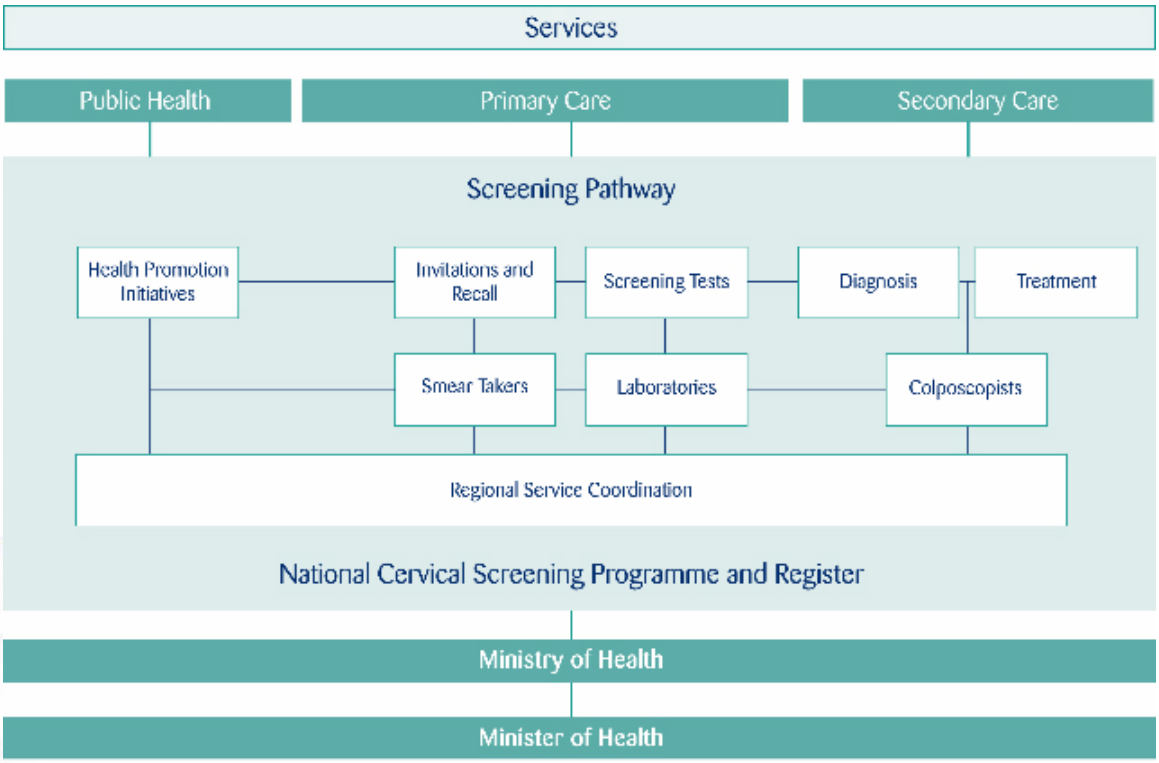
Understanding human papillomavirus

There is now definitive evidence showing that the primary cause of cervical cancer is persistent infection with high risk types of human papillomavirus (HPV). HPV is a common sexually transmitted infection, affecting an estimated 80% of sexually active women at some point in their lives, and probably as many men. Most infections are transient with the immune system clearing the detectable virus within a few months. Persistent infection with 'high risk' HPV types may progress over years to cervical pre-cancer (abnormal cytology), and ultimately to invasive cervical cancer, but this is not inevitable.

THE NCSP SCREENING PATHWAY

The National Cervical Screening Programme is reliant on specific services being provided by a range of service providers across the screening pathway. NCSP services must meet monitoring, reporting and quality requirements of the NSU.

The following diagram shows the NCSP screening pathway and associated services.



Health Promotion

Within screening programmes, health promotion aims to create an environment that is conducive to informed participation in screening. In 2009, 19 organisations provide NCSP health promotion for Māori and Pacific women. The NSU's Health Promotion Framework (2004) outlines what is required of providers who are contracted to provide cancer screening health promotion services.

NCSP Regional Services

NCSP Regional Services are provided by thirteen DHBs. Service components include NCSP-Register administration, regional coordination of the NCSP, health promotion and smear taking.

Independent Service Providers

The Ministry of Health funds some independent service providers (ISPs) to provide health promotion, support to services and smear taking services. The majority of these are Māori providers who offer alternative service choices to communities within a kaupapa Māori cultural context. Likewise, Pacific ISPs deliver screening health promotion services within Pacific cultural contexts.

Primary Health Care Services – smear takers

There are over 6,000 smear takers for the NCSP, the majority being doctors or nurses in primary care services. The role of the primary health care sector is also critical in processes such as invitation to have a cervical smear, recall of women, and the management of women who have had abnormal cervical smears.

Laboratory Services

The Ministry of Health funds the processing of cervical smears and gynaecological histology specimens. As at 2009, gynaecological cytology laboratory services are provided to the NCSP by nine laboratories. Gynaecological histology laboratory services are provided through 16 laboratories.

Colposcopy Services

All District Health Boards (DHB) and some private obstetrician and gynaecology services provide colposcopy services. The Ministry of Health funds only DHB colposcopy services, on a fee for service basis.

THE NCSP REGISTER

The NCSP-Register is the computer system which holds details of women enrolled in the NCSP, in addition to details of smear takers, specialists and laboratories. The Register is a live clinical database and a key management tool for the programme, recording the cervical screening event history of the woman, informing her clinical management by health professionals, and providing a back-up to smear taker recall systems.

Information from the Register also informs the ongoing monitoring of the NCSP through its reporting function. The Register has been programmed against the *Guidelines for Cervical Screening in New Zealand* and the *NCSP Operational Policy and Quality Standards*, enabling reports to be generated against specific standards.

MONITORING THE NCSP

The NCSP continually works to improve the quality of the programme through a complex process of gathering and analysing programme data which is used to monitor service provision, feeding it back to providers and working with them collaboratively to improve programme performance. Monitoring takes place across the screening pathway – from enrolment in the programme, through the screening activities, to follow-up of women with high-grade abnormalities.

Development of the use of quantitative data for monitoring has involved establishing indicators, data definitions and data collection, checking and reporting processes. Many of these monitoring activities have been developed over the last five years. The NCSP is also responsible for coordinating the development, publication and maintenance of Operational Policy and Quality Standards.

The NCSP is independently monitored across a range of performance indicators which are relevant to smear takers, laboratories and colposcopy services.

A range of reports are published monthly, quarterly six monthly, annually and occasionally as one- off exceptions, depending on the issue being monitored.

Routine provider compliance audits are undertaken of specific components of the screening pathway, as well as issue based audits.

In addition, outcomes such as incidence and mortality are monitored, complaints are monitored and screening histories of women with invasive cervical cancer reviewed.

ACHIEVING EQUITY IN CERVICAL SCREENING

The incidence of cervical cancer among Māori women remains higher than that among non Māori women, but the gap is closing. In 1996, the first year for which reliable ethnic data is available, the difference between Māori and total population rates was 10.2 per 100,000 women (adjusting for age). By 2003, this difference had fallen to only 3.6 per 100,000.

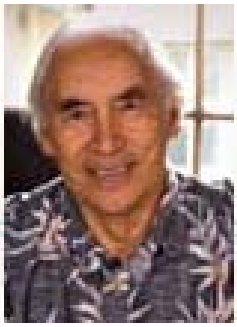
Māori women continue to experience higher mortality from cervical cancer than non-Māori (or all New Zealand women). As with incidence, however, the gap is closing. The incidence rates of cervical cancer among Pacific and Asian women are also higher than that of the general population.

One of the primary reasons for these disparities is lower rates of screening coverage among these groups.

A national communications campaign for the NCSP was launched in September 2007. The campaign has a strong focus on Māori and Pacific women because of their higher rates of cervical cancer and lower rates of cervical screening, however it is hoped that awareness of the importance of regular cervical screening will increase with all women. The campaign also aims to foster increased discussion about cervical screening among families, friends and communities.

For Māori, the focus is on taking individual responsibility for health so women can be around for whanau. For Pacific peoples, the focus is on collective responsibility – making sure those you care about stay well. For Asian people the focus is on improving understanding of the benefits of the programme.






DEVELOPMENTS IN THE PAST FIVE YEARS

Over the past few years the most significant changes in the NCSP have included:

- the implementation of new legislation to support the NCSP in March 2005
- the introduction of a revised reporting system for cervical cytology in July 2005 (Bethesda 2001)
- an ongoing review of the NCSP Operational Policy and Quality Standards
- the implementation of workforce initiatives including the establishment of a cytology training service
- a review of colposcopy services delivered through DHBs
- a review of the role of liquid based cytology (LBC) in the NCSP
- a review of guidelines for the management of women with abnormal cervical smears, resulting in the *Guidelines for Cervical Screening in New Zealand*, operational from September 2008
- work on the place of human papillomavirus (HPV) testing in the NCSP, including a cost-effectiveness analysis of HPV testing with LBC in the programme
- the redevelopment of the NCSP-Register, operational from 1 October 2008. improving the quality of the information available, enabling an electronic interface with laboratories, and enhancing its monitoring and evaluation abilities
- setting of targets for NCSP performance
- a review of the screening age and interval
- consultation on the future of laboratory cytology services for the NCSP.
- an increase in the number of free smears available to priority group women.

DEVELOPMENTS OVER THE NEXT FIVE YEARS

ACCESSIBLE SCREENING FOR ALL: achieving coverage targets and achieving equity

The greatest potential for reducing the incidence of cervical cancer remains increasing the number of women being regularly screened. Over the next five years, the NCSP will work to increase coverage of all population groups, placing priority on groups for whom the burden of cervical cancer is greatest.

In December 2008 the coverage rate[1] for the total population was around 72%.

The NCSP will work to increase overall coverage of the programme to the 2011 target of 80%.

Trends in coverage by ethnicity indicate that there is considerable scope for improving equity in access to cervical screening across all ethnic groups. While coverage is about 80% for Europeans, it is 40% - 60% for Māori, Pacific and Asian population groups. Coverage is also lower among women living in the most deprived areas of the country.

The NCSP will continue to monitor inequalities in incidence, mortality and coverage and to regularly report on progress.

For most women, the cost of having a cervical smear is not fully publicly funded but is dependent on the primary care consultation fee. Some funding, however, has been made available by the Ministry of Health to enable free smears for women who are identified as 'priority' because of the low numbers who are having regular cervical smears. Priority groups are identified as:

- Māori, Pacific or Asian women
- Women over the age of 30 who have not had a cervical smear for five years and
- Women over the age of 30 who have never had a cervical smear.

Initiatives to improve equity in the next five years will include:

- An ongoing national campaign
- Improved systems for the identification and recruitment of unscreened and under-screened women
- A coordinated approach to health promotion activities including promoting better understanding of cervical screening among whanau, hapu and iwi
- Improved methods for monitoring ethnic-specific coverage
- Continued work to enhance Māori and Pacific smear taker availability

[1] The 'coverage' rate measures the proportion of women of screening age who have been screened in the previous three years. It is one of the most important indicators for determining the success of the Programme. The coverage target of 80% is based on estimation of coverage required to meet incidence and mortality targets by 2011 (Ministry of Health 2003).

- Independent service providers will continue to provide health promotion and education services for women of all ages as well as their families, and to raise awareness of cervical screening in communities where coverage rates are low, especially among Māori and Pacific women and communities.

NCSP data also suggests that there is a significant level of short interval re-screening taking place (less than the recommended three years for routine smears).

The NSU will work with providers to reduce the level of routine cervical smears being taken at a less than three-yearly interval.

STRENGTHENING COLLABORATIVE RELATIONSHIPS

The NSU will work to ensure better collaborative working with DHBs, primary health and non-government organisations at a national and local level.

NCSP Regional Services Over the next five years, the focus for NCSP Regional Services will be on regional coordination for cervical screening by facilitating relationships between smear takers, colposcopy services, independent service providers and the primary health sector. There will be a strong emphasis on supporting PHOs and other primary care providers to ensure that priority group women have regular cervical smears and that they receive the appropriate treatment where necessary.

EFFECTIVE PERFORMANCE MONITORING AND MANAGEMENT

All the established quality improvement, monitoring, evaluation, case review and other auditing processes will continue and will be streamlined over the next five years.

Contract monitoring and auditing of providers will be ongoing and reporting mechanisms enhanced.

Performance indicators will be reviewed and effectively communicated to the sector.

Independent review of monitoring data will continue, starting with a review of data collection and reporting for the independent monitoring process.

Operational policy, standards and procedures covering all aspects of the programme will be reviewed and revised as necessary to keep pace with technological and other developments.

CONTINUED IMPROVEMENTS IN QUALITY

There will be continued improvements to the quality of NCSP service provision across the screening pathway. This will align with changing requirements in the sector, technological advancements, best practice and evidence for cost-effectiveness, and with recommendations arising from external review of the programme.

Areas of specific quality improvement in the next five years include:

HPV testing Testing for high risk types of human papillomavirus (HPV testing) has a higher sensitivity than cytology and helps to determine those women who need further assessment. From mid 2009 HPV testing will be used to triage women with low grade cervical smear abnormalities, and as a follow-up test for women being treated for high grade intraepithelial lesions to predict cure or failure of treatment. Post-treatment and historical HPV testing will allow many women having annual smears following previous high-grade abnormalities to return to three yearly cervical smears.

Liquid based cytology LBC has been offered in New Zealand as an alternative to the conventional Pap smear since 1997. A move to 100% LBC in place of conventional pap smears will bring benefits for women and health professionals, including reducing the number of 'unsatisfactory' smears that need repeating, facilitating the use of HPV testing as well as automated screening.

NCSP-Register Work will be undertaken to continue to develop the potential of the new NCSP-Register, including the development of an electronic interface between the NCSP-Register and smear takers.

Workforce development Workforce development will continue in each of the service provision areas to ensure that each part of the screening pathway functions to its optimum. Smear taker, cytology and health promoter training programmes will be enhanced and updated as the programme develops and in response to needs of the workforce. Work will continue to enhance colposcopy capacity. For example, the NSU will work in collaboration with professional bodies on the safe establishment of the role of nurse colposcopists in the programme.

Health Promotion There will be a review of how health promotion is provided for the programme, including the health promotion framework, health promotion services and provision of support to services.

Laboratory services HPV testing, LBC, increasing automation and eventually HPV vaccination will impact on the future of laboratory services. The NSU will work closely with laboratories to ensure that laboratory cytology, histology, and HPV testing services for the NCSP continue to be of high quality and are stable, cost-effective and sufficiently flexible to adapt to future changes.

Clinical management guidelines Up-to-date, evidence-based clinical management guidelines are a key tool for the success of the NCSP. The effectiveness of the management guidelines for clinicians will continue to be monitored. Any changes to the guidelines will be determined in consultation with stakeholders and updates will be communicated.

Parliamentary reviews of the NCSP The NCSP is due to be reviewed by a Parliamentary appointed committee every three years. The NSU will support these reviews and work to implement recommendations.

FUTURE DIRECTIONS FOR THE NCSP

ADAPTING THE PROGRAMME FOR THE HPV VACCINE ERA

Over the next five years new technological developments will see further changes to the NCSP.

The increased role of HPV testing over the next few years may also see its use extended to serve as the primary screening test, in combination with cytology.

The NSU will review the effects of HPV vaccination on cervical screening and implement changes to ensure programme effectiveness.

HPV vaccine

Two HPV vaccines are now licensed for use in New Zealand Gardasil® and Cervarix ®. Both vaccines are safe and highly effective in protecting against infection with the HPV types 16 and 18, providing up to 70% protection against cervical cancer.

As the current vaccines confer little benefit if given after HPV infection has already occurred, they are currently recommended only for girls and young women aged 9 to 26 years.

From February 2009 Gardasil® will be included in New Zealand's routine childhood immunisation schedule for girls in school year 8. A catch-up programme is also offered to girls and young women born on or after 1 January 1990.

It is essential that women fully understand the need for ongoing regular screening to protect themselves against cervical cancer irrespective of whether they have been vaccinated or not.

OPTIMAL SCREENING INTERVAL AND AGE RANGE

There is no imminent change to NCSP policy with respect to age of first screen and screening interval. The policy will be reviewed in three to five years.

NCSP policy on screening age and interval was reviewed in 1997 and again in 2007 and has remained unchanged for the last decade. The policy is that all women who have ever had sexual intercourse should be offered a three-yearly cervical smear test from age 20 to age 70.

A review of screening age and interval will be repeated in three to five years following the introduction of HPV testing into the programme.

It is likely that any future change over from cytology to HPV testing as the primary screening test will permit a change in screening frequency from three to possibly five yearly.

A recent World Health Organization guide on cervical cancer control[2] recommends that:

- new programmes should start screening women aged 30 years or more
- existing programmes should not include women under 25 years of age
- for women over 50 years, a five year screening interval is appropriate
- in the age group 25-49 years, a three year interval is considered appropriate
- annual screening is not recommended at any age
- screening is not necessary for women over 65 years provided the last two previous smears were negative.

A RESEARCH AND DEVELOPMENT PROGRAMME

Over the next five years NCSP will identify priority areas and undertake research to maximise the benefits of cervical screening.

A research and development focus implies incorporating research into everyday practice to improve effectiveness, efficiency, safety and equity. This involves:

- anticipating, evaluating and benchmarking international developments
- incorporating relevant research from other countries, evaluating new services and changes to existing ones
- partnering with service providers and academic researchers to undertake research
- disseminating research knowledge.

More information is still needed about some aspects of HPV infection in the New Zealand population, such as age-specific HPV prevalence, infection rates in older women, and infection rates in women who do not participate in screening. Such information will be helpful in re-defining when to start and stop screening, who to screen and how to improve the sensitivity of screening.

[2] World Health Organization, 2006. *Comprehensive Cervical Cancer Control. A guide to essential practice*. Geneva: WHO.

The NCSP has identified the following priority areas for research in the next five years that will help to maximise the benefits of cervical screening. These are:

- an HPV type distribution study
- cost-effectiveness of the HPV vaccine – modelling of its effects on the NCSP.