

**National Screening Advisory Committee (NSAC)
National Screening Unit (NSU)**

Minutes Wednesday 15 November 2017

Venue	Ministry of Health, 133 Molesworth St, Wellington	
Start time	1000hrs	
NSAC members present	Dr Joanne Dixon (Chair) Dr Jane O'Hallahan (Deputy Chair) Dr Carol Atmore Dr Karen Bartholomew Professor Mark Elwood John Forman Dr Caroline McElnay Professor John McMillan Dr Deborah Rowe Dr Caroline Shaw	
Other attendees	NSU Anne McNicholas Dr Laupepa Va'a	Item 5: National Cervical Screening Programme Dr Margaret Sage, Clinical Leader Item 6: BreastScreen Aotearoa Dr Marli Gregory, Clinical Leader Jasmine Plimmer, Acting Manager Jennifer Cox, Senior Service Development Analyst Item 8: Abdominal aortic aneurysm screening Dr Peter Sandiford, Waitemata District Health Board Professor Justin Roake, University of Otago, Christchurch Dr Nisha Nair, University of Otago, Wellington
Apologies	Professor Jackie Cumming Astrid Koornneef Professor John Potter Dr Pat Tuohy	

Item	Subject and summary
1.	Welcome, apologies and introductions
2.	<p>Declaration of conflicts of interest (COI)</p> <p>COI register tabled.</p> <p>Item 8. Noted Karen Bartholomew's role as Manager of Waitemata/Auckland DHB AAA screening pilot/extension.</p>
3.	<p>Minutes of 26 July 2017</p> <p>Confirmed as a true and accurate record.</p>
4.	<p>Correspondence tabled</p> <p>Nil</p>
5.	<p>National Cervical Screening Programme (NCSP) - Review of Cancer Occurrences in Relation to Screening History for the Years 2008-2012</p> <p>Dr Margaret Sage presented the findings of the recent review of cervical cancer occurrences in relation to screening history, as well as the proposed approach for the future monitoring of cervical cancer cases, including the safety and routine monitoring for primary HPV screening.</p> <p>A cervical cancer case review is part of a suite of NCSP monitoring activities and is a key performance indicator.</p> <p>Two audits of cervical cancer cases have been undertaken previously.</p> <ul style="list-style-type: none"> • The first audit carried out in 2003 included cervical cancer cases that occurred between 2000 and 2002. This independent audit followed the Ministerial Inquiry into the under reporting of cervical abnormalities in the Gisborne region. • The second audit was carried out in 2008 for the period 2003 and 2006 and was undertaken by NCSP staff. Both reviews found that over 80% of women with cervical cancer were inadequately screened, highlighting the importance of improving coverage and ongoing programme monitoring. <p>The most recent review includes cases diagnosed over the 2008-2012 period.</p> <p>The NCSP commissioned Associate Professor Peter Sykes (Department of Obstetrics and Gynaecology, Otago University, Christchurch) as an independent evaluator for the most recent review of cervical cancer cases.</p> <ul style="list-style-type: none"> • The review concluded that lack of screening remains the most important factor to cervical cancer occurrence. As with previous reviews, most women with cervical cancer were found to be inadequately screened. Only 13% of women aged 25-69 years with confirmed cancer had been screened according to the NCSP guidelines prior to their diagnosis, and this figure was lower among Māori and those living in deprived areas. • The review also found that over one third of women with cancer had an abnormal screen prior to their diagnosis, representing 20% of women with cancer in the 25-69 year age group, the majority with a high grade abnormality. The review noted that while in principle these cancers should have been diagnosed earlier or the cancer prevented, without access to clinical records there was insufficient information on aspects such as access to colposcopy, treatment and follow-up to assess the management pathway and identify factors that may have contributed to treatment failures. <p>Next steps</p> <p>Undertaking an invasive cancer case audit is important as it :</p>

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	<ul style="list-style-type: none"> • provides objective support for NCSP policy by highlighting areas where activity and funding is likely to make a difference to cancer rates • is a sensitive way of identifying specific potential gaps in the screening pathway • provides a robust audit of New Zealand data from the National Cancer Register and NCSP • provides direct educational feedback to service providers eg laboratories and medical practitioners, of any modifiable factors that have contributed to the outcome. <p>The next cancer case review will cover the period 2013-2017 ie a retrospective review.</p> <p>From 2018/19, the NCSP will establish a prospective rolling cancer case review process, that is, in real time as cases emerge. Broad aims of this approach are to:</p> <ul style="list-style-type: none"> • understand the reasons why women develop invasive cancer in New Zealand despite a high quality cervical screening programme • identifying opportunities for quality improvement in the programme, including educational feedback for providers of NCSP services • be part of the safety monitoring plan for the change to human papilloma virus (HPV) testing, as it is a sensitive indicator of potential changes in the effectiveness of screening to prevent invasive cervical cancer. <p>Formal individual case reviews will be undertaken. They will include:</p> <ul style="list-style-type: none"> • clinical and staging data from the three national gynaecological cancer treatment units to help assess why women who have been screened have developed cervical cancer, which will in turn support quality improvement activities • a slide review and will include full HPV genotyping to help identify expected changes to HPV prevalence in the HPV vaccination era. <p>Under NSU's general approach to open disclosure, consideration needs to be given to women being informed about the audit process and being offered the opportunity to have the audit findings relating to their particular case disclosed to them, if they wish to know this.</p> <p>The move to prospective cancer case reviews has been endorsed by the NSU's HPV external Technical Reference Group.</p> <p><i>Discussion included:</i></p> <ul style="list-style-type: none"> • importance of reviewing individual clinical data as part of a cancer case review was emphasised, and was regarded as being fundamental to programme monitoring • the 2008-2012 report was judged to be excellent, however strong disappointment was expressed that it did not include a review of individual clinical data • that the Parliamentary Review Committee has previously identified a gap in the NCSP quality monitoring with the failure to undertake full audits as cancer cases arise • consideration should be given to including clinical data in the upcoming cancer case review for the 2013-2017 period, that is, an audit with individual case review • that cancer case reviews are essential for both the transitional safety monitoring and routine quality monitoring for primary HPV screening; therefore, going forward their inclusion in the NCSP quality monitoring programme will be non-negotiable, with the reviews to be undertaken in real time and to include individual clinical information • if there are insufficient resources then the NCSP quality monitoring programme priority is to establish the system for prospective case reviews going forward from 2018, rather than expanding the 2013-2017 review to include individual clinical reviews • noted need to include primary care representation in the planning and implementation of prospective monitoring • regarding open disclosure, cancer case reviews should be regarded as part of routine quality monitoring, so that consenting to programme participation includes the programme's quality monitoring activities

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	<ul style="list-style-type: none"> • women need to be informed about the audit process, and offered the opportunity to have the audit findings relating to themselves provided to them, if they wish to know this • a process will be developed so that information regarding prospective case reviews is provided to both women with cancer and those treating them. <p>NSAC Recommendations</p> <p>Noted</p> <ul style="list-style-type: none"> • The findings of the review of cervical cancer cases in relation to screening history in New Zealand (2008-2012) and commended the excellent work of the report authors. <p>Agreed</p> <ol style="list-style-type: none"> 1. That a cervical cancer audit for the 2013-2017 period should be undertaken. <ul style="list-style-type: none"> • This audit should prioritise the inclusion of clinical case reviews for individuals who have developed cervical cancer, including those with and without a previous screen detected abnormality. • The clinical case reviews will be used to inform the program, laboratories and medical practitioners of any modifiable factors that may have contributed to the outcome. • This audit does not require an audit of cytology, that is, a re-reading of slides. 2. That as a core part of routine quality and safety monitoring the NCSP will establish the permanent prospective audit of cervical cancer cases. Reviews will be expanded to include formal case reviews with clinical data collated from the three national gynaecological cancer treatment units. They will also include information about HPV subtype, diagnosis and stage of cancer. 3. That prospective cancer case review with its real time monitoring will be a central component of the transitional safety monitoring for the introduction of primary HPV screening.
6.	<p>BreastScreen Aotearoa (BSA) – age extension impact analysis</p> <p>The BSA programme sought feedback on an initial draft analysis of the potential impacts of extending the eligible age range to include women aged 70-74 years. It was noted that since NSAC considered this issue at its November 2016 meeting the new Government has signalled that one of its policies is the progressive increase in the age of free breast screening to 74 years.</p> <p>The paper presents a preliminary high level analysis and does not explore options for implementation of age extension. It explores potential impacts on screening coverage, screening services and workforce capacity, and also on treatment services.</p> <ul style="list-style-type: none"> • New Zealand could replicate the mortality reduction seen overseas in women aged 45-69 if 70% of women aged 70-74 years were offered regular screening. • Age extension to 70-74 years would see the eligible screening population initially increase to around 13% and by 2027 to about 16.6%. • At current screening coverage rates, age extension would require approximately an additional 40,000 screening appointments and 1,600 assessments annually. To meet this increased demand requires additional infrastructure and workforce, with services currently running at capacity. • The initial negative impact of the 2004 age extension (from 50-64 years to 45-69 years) on screening coverage was noted. Services struggled to cope with extra demand which saw a drop in overall screening coverage, particularly for Māori and Pacific women.

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	<ul style="list-style-type: none"> • Achieving equity remains a focus for BSA. There are concerns that an outcome of extending the age group will be to increase the current equity gap in mortality outcomes between ethnicities. • The implementation options analysis will include strategies to achieve and maintain equitable coverage. There is the potential to take the opportunity of changes in the age range to implement service delivery innovations that improve equitable cancer outcomes. • Careful planning and implementation over an appropriate time period is required to recruit additional workforce and expand facilities to meet the increase in demand. • Next steps will include a full analysis of potential strategies for screening women aged 70-74 years, identification of opportunities to improve equity, and completion of a cost benefit analysis. <p><i>Discussion included:</i></p> <ul style="list-style-type: none"> • need to clearly separate out the three aspects of screening population growth: population increase, reaching equitable coverage, and including women aged 70-74 years as these each effect the perspective and actions that could be taken • need to consider high projections rather than just medium as will impact substantially on required resources • opportunities to provide services closer to home if mobile units were increased • biggest issue remains those women who have not been screened at all, with radical recruitment strategies and ideas needed • agreed that age extension should happen, but strong concerns expressed regarding risk that it will negatively impact equity, especially given previous experience of a fall in coverage following the 2004 age extension • it is important to articulate the gap due to lack of equity, for example, quantify how many lives could be lost if coverage falls, compare number of lives saved through improving equity and lives saved through age extension • strategies to protect equity must be a priority, for example, consider options to prioritise never or infrequently screened women as they may benefit the most • there is a higher breast cancer incidence in the older age groups and the screening test works well in this group; increasing the age range may standardise clinical practice regarding treatment options offered for older women which could be an unintended benefit • elaboration of benefits and harms of screening and treating the 70-74 year age group is important given increased likelihood of co-morbidities and should be clear in the paper • important to increase the level of understanding around 10 year life expectancy and its relationship to benefits of screening; potential for decision aids to help with this aspect and support GPs to have these conversations • consideration should be given to the ability (of the system) to record a woman's decision not to have screening following consideration of co-morbidities and reduced life expectancy (informed consent decision) • noted risk of impact of increase demand in services on the current provision of surveillance for those with a family history of breast cancer who are BRCA1 or BRCA2 carriers. <p><i>Conclusion</i></p> <p>It is important for the Ministry to move forward and implement age extension noting that:</p> <ul style="list-style-type: none"> • an appropriate transition period is essential • implementation of age extension must protect equity • a strong awareness of capacity constraints is required and the level of investment <i>required to address these so that the systems cope, sufficient services are in place and the equity gap is addressed.</i>

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7.	<p>Programme updates</p> <p><i>National Bowel Screening Programme</i></p> <ul style="list-style-type: none"> The Wairarapa and Hutt Valley DHB implementation appears in line with that seen at a similar point in the Waitemata DHB pilot rollout in terms of screening invitations sent and subsequent levels of participation. <p><i>Antenatal screening for Down syndrome and Other Conditions</i></p> <ul style="list-style-type: none"> NSU work is progressing work on the introduction of non-invasive prenatal testing (NIPT), including assessment of the implementation costs. Noted the UK has initially introduced NIPT as a contingent test not universal, and NSAC has previously endorsed New Zealand's transition to NIPT as a contingent test. Introduction of NIPT can be viewed as a quality improvement to current screening as it is a more accurate test. Scaling up to the universal offer of NIPT is likely to follow, but a graduated approach with initial introduction of contingent testing allows laboratory capacity (in New Zealand) to be established, adequate staff training in the interpretation of results, monitoring of uptake and women's experience, development of resources to support an agreed consenting process by midwives, and up-scaling of clinical genetics services to meet demand. Noted that the commercial offer of testing with massive parallel sequencing raises a number of challenges, including interpretation of incidental findings and demand overwhelming clinical genetic services. It is therefore important limitations are made on the range of conditions national publicly funded antenatal screening programmes include on their screening panels.
8.	<p>Abdominal aortic aneurysm (AAA) screening</p> <p>At its 9 November 2016 meeting NSAC agreed support in principle for a national programme to screen for AAA. The Committee supported further exploration of how a national programme could be implemented, with options to include:</p> <ul style="list-style-type: none"> priority of equitable delivery for Māori consideration of options based around best clinical practice eg CVD risk assessment incorporating risk of AAA opportunities to integrate case detection within GP practices, eg GP access to AAA ultrasound screening cost effectiveness. <p>Dr Peter Sandiford, (Clinical Director Health Gain, Auckland and Waitemata DHBs), Professor Justin Roake (Vascular Surgeon and Clinical Director, Department of Vascular, Endovascular and Transplant Surgery, Christchurch Hospital) and Dr Nisha Nair (Public Health Medicine Specialist, University of Otago) updated NSAC on progress with AAA screening since they attended NSAC's November 2016 meeting.</p> <p>Dr Sandiford update</p> <p><i>Extension of the Māori AAA Waitemata screening pilot.</i></p> <ul style="list-style-type: none"> Includes all Māori men aged 60-74 years and all Māori women aged 65-74 years in Waitemata and Auckland DHBs. Approx 3300 men and women are eligible for screening. Around 50% have been screened to date, with the aim to achieve 75% coverage. Approx 3.3% (n=38) of men had an AAA of ≥ 30mm detected and 2.7% (n=19) of women had an AAA of ≥ 27mm (pilot and extension data combined).

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	<p><i>Precision screening trial.</i></p> <ul style="list-style-type: none"> • The precision screening tool employs a risk prediction algorithm to identify eligible individuals based on a set threshold probability that they will test positive, rather than only sex/age criteria typically used in population-based screening programmes. • Baseline parameters for the algorithm include age, sex, ethnicity, smoking status, hypertension, hyperlipidemia, diabetes and family history of AAA. • A study sample using a non-Māori population registered with general practice has been used to test the algorithm/parameters. Results to date indicate a good correlation between predicted prevalence and the number of AAA cases detected. <p><i>Integrated primary care system for opportunistic AAA screening</i></p> <ul style="list-style-type: none"> • The precision screening algorithm could be incorporated into routine general practice CVD risk assessment, with software currently being developed as part of the project. A patient management system (PMS) screen alert would automatically report the risk profile/threshold. The PMS could book the patient into the AAA ultrasound screening service if they meet the risk threshold. • Likely to impose a lower administrative burden than a full screening programme. Argued to be more resource-efficient as it integrates with primary care, uses existing CVD risk assessment and management approaches rather than creating a new vertical programme, and makes use of available data and IT developments. • Next steps include further testing of the software in GP practices and refinement of the algorithm. <p>Justin Roake update</p> <ul style="list-style-type: none"> • Considered concepts around implementation of screening in New Zealand based in part on Peter Sandiford’s work, ongoing developments around risk assessment, and options considered by the Vascular Society of New Zealand. • A potential approach includes offer of a one-time (lifetime) ultrasound screening to those judged to be at moderate to high risk of AAA with inclusion criteria requiring all three of the following: <ul style="list-style-type: none"> ○ age 50-79 years / male and female ○ use of an agreed tool that accounts for existing co-morbidities and establishes a likelihood of benefit threshold if the AAA was treated by endovascular aortic repair (EVAR) surgery ○ an AAA-specific risk score indicating a likelihood of AAA of >2% • Exclusion criteria include exclusion of AAA by abdominal imaging within last 10 years, already known to have an AAA or had an AAA repair, contraindications for AAA repair, for example, advanced cancer or dementia. • Programme structure requires in depth consideration including role of primary care/GPs, regional co-ordination, national oversight, screening service location and management of screen positives. • Noted the Ministry of Health December 2016 publication “Model of Care for Vascular Services” which describes regionally integrated vascular services. <p>Nisha Nair update</p> <ul style="list-style-type: none"> • The University of Otago AAA cost utility modelling is progressing (is based on the UK model). • They are making a number of changes to better fit the model to the New Zealand situation including accounting for competing mortality (which the UK did not do) and reassessing the number of AAA cases detected in New Zealand through incidental interventions (which may be higher than in the UK).

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	<p><i>Discussion included:</i></p> <ul style="list-style-type: none"> • difference in treatment mortality for women • results from predictive modelling for post-AAA treatment survival are expected to be published soon with the potential to incorporate this data/tool with Sandiford's precision screening tool to better identify suitability for surgery • importance of QA for radiology with current detection of AAA as an incidental finding varying markedly depending on whether the scan was performed by a radiology register or ultrasound technician/sonographer • important to consider harms and benefits, in particular the anxiety related to detection of an AAA; HRC funded research is underway related to this issue • dynamic nature of data that feeds into the algorithm means risk profiles will change over time, noting once in a lifetime ultrasound offer still applies • information on the positive predictive value required as well as sensitivity and specificity • incidental findings detected during AAA scan will also impact on health system • integration/location in primary care an encouraging approach, and likely to benefit rural populations including Māori • Counties Manukau DHB are not participating in Auckland AAA screening pilot extension • it is possible that development of an AAA risk algorithm embedded within CVD risk assessment could leverage increased CVD risk assessments by GP • information provided expands on that previously considered, and describes pathway options that maybe more feasible in the New Zealand system; however, there is a need for an independent cost-benefit of primary care implementing risk prediction tools • Sandiford has submitted an HRC funding application to test the precision tool in a number of primary care practices • Roake suggests that regional committees be established to work through the model of care for vascular services, including issues related to AAA detection. An approach with GP hubs and/or regional clusters all using the same pathways flagged as an option, perhaps brought together in one document (by the New Zealand Vascular Society) for the NSU to use to identify further work that needs to be done. <p>Actions</p> <p>NSAC will reconsider aspects of AAA screening at its next meeting including results from the Otago University cost-utility study.</p>
9.	<p>Other business</p> <p>NSAC meeting dates for 2018: Wednesdays of 21 March, 25 July and 28 November.</p> <p>The meeting closed at 1530hrs.</p>