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National Bowel Screening Programme

To: Hon Dr David Clark, Minister of Health

Purpose

This Health Report provides you with an in depth briefing about the National Bowel Screening Programme, and follows on from the Memorandum: Briefing on the National Bowel Screening Programme for Morning Report on 1 November 2017 (HR20171533 refers) and the Bowel Screening Pilot's incorrect withdrawal of eligible people (HR 20171489).

Key points

- Bowel cancer is the second most common cause of cancer death in New Zealand after lung cancer; with 3,075 new cases diagnosed and 1,252 deaths recorded in 2013.
- The risk of developing bowel cancer rises steeply from 0.6 percent at age 50, to 5.6 percent by the age of 75 years.
- The primary objective of bowel screening is to reduce the mortality rate by diagnosing and treating bowel cancer at an earlier more treatable (and less costly) stage.
- A bowel screening pilot (the pilot) has been running in the Waitemata DHB since 2011, screening men and women aged 50-74. The pilot is due to complete the third screening round in December 2017. By March 2017 the pilot had detected bowel cancer in 375 people. Data collected during the pilot provided vital information on participation levels, cancer detection rates and the impact on health services, and helped inform the National Bowel Screening Programme (NBSP).
- The pilot confirmed that:
 - Bowel screening can be introduced safely in New Zealand
 - It provides health benefits and is cost saving
 - Enabling equal participation is essential
 - Sufficient colonoscopy workforce capacity is critical to a successful roll-out the NBSP.
- Implementation of the NBSP was announced by the previous Minister of Health on 25 November 2016.
- The NBSP commence in July 2017 with a staged roll starting in Hutt Valley and Wairarapa DHBs for men and women aged 60 to 74 years.
- In March 2017 the Ministry provided an update to Cabinet State Sector Reform and Expenditure committee (SOC) on the NBSP implementation (SEC-17-MIN-0016). This provided information to Cabinet on the programme structure, implementation schedule and Information Technology challenges.
- The Ministry is currently on track to implement the NBSP by the end of the 2019/20 financial year:
 - Hutt Valley and Wairarapa District Health Boards (DHBs) commenced screening on 17 July 2017.
 - Waitemata DHB will transition from the pilot to the NBSP on 1 January 2018.

Contacts: Jill Lane, Director, Service Commissioning
Astrid Koornneef, Group Manager, National Screening Unit

s 9(2)(a)

- Southern and Counties Manukau DHBs will commence screening by 30 June 2018.
- The remaining 15 DHBs will implement the NBSP between 1 July 2018 and 30 June 2020.
- Implementing bowel screening is a complex process with a number of operational, technical and clinical dependencies, such as facilities, equipment, information technology and staffing. Roll-out of the NBSP is reliant on the ability of each DHB to provide clinically safe and appropriate services. If a DHB is not ready, its go-live date will be altered, and this may impact the completion date for NBSP implementation.
- A key enabler of the NBSP is a fit for purpose Information Technology (IT) system. The roll out has started using an interim IT system, and the Ministry is working through a procurement process for an integrated National Screening Solution that will support all 20 DHBs. The procurement process will be completed in late December 2017 at which point contract negotiations will commence and the detail design approach will be confirmed.
- The dependencies and challenges associated with the implementation of NBSP are being carefully managed within a very tight roll-out timeframe.

Current live issues under consideration

- Outcome of the procurement for the National Screening Solution and the carry forward of the s 9(2)(f)(iv) of capital held in contingency.
- Impact on timelines and changes to the DHB roll out order to enable design and build of the new Screening Solution
- Meeting the overall 2019/20 completion timeframe for the programme.
- Budget bid for Budget '18 for the next tranche of DHBs going live in the 18/19 year.

Recommendations

The Ministry recommends that you:

- | | |
|---|---|
| a) note the stage of the National Bowel Screening Programme and its progress | Yes/No |
| b) note Budget 2016 allocated s 9(2)(f)(iv) held in contingency for the capital expenditure to develop an appropriate information technology platform to support the National Bowel Screening Programme | <input checked="" type="radio"/> Yes/No |
| c) note the contingency expires on 1 February 2018, having been extended by Cabinet in February 2017. Therefore Cabinet must consider an extension prior to Christmas. | <input checked="" type="radio"/> Yes/No |
| d) agree that the Ministry provide that draft Cabinet paper to you seeking approval to extend the National Bowel Screening information technology capital contingency funding of s 9(2)(f)(iv) from February 2018. | <input checked="" type="radio"/> Yes/No |
| e) agree to meet with officials to discuss the National Bowel Screening Programme | <input checked="" type="radio"/> Yes/No |



Jill Lane
Director
Service Commissioning



Minister's signature:

Date: 7/11/17

National Bowel Screening Programme

Screening Programmes

What is population screening

1. Population screening refers to a test that is offered to all individuals in a target group, usually defined by age, as part of an organised program. The purpose of screening is to detect some conditions that if detected early enough can reduce the chance of developing or dying from those conditions.
2. There are five national population based screening programmes in New Zealand and one national quality improvement programme. Three cancer screening programmes: BreastScreen Aotearoa, the National Cervical Screening Programme and the National Bowel Screening Programme. There are also two newborn screening programmes: National Metabolic Programme (heel prick) and the National Newborn Hearing Screening Programme. Screening for Down Syndrome and other conditions is provided as a quality improvement programme.
3. Screening is a preventative health programme. People who are invited to be screened are considered healthy and asymptomatic, i.e. they are not displaying signs of an illness or disease.
 - Screening provides a test that directs people into one of two pathways:
 - people who have an increased chance of having the condition (positive screening result),
 - people who do not have an increased chance of having the condition (negative screening result).
 - People with a positive screening result will be offered a diagnostic test, which will give more information about whether they do have the condition for which they were screened. Where the condition is confirmed, people move onto treatment programmes.
4. People with a negative screening result may be invited to screen again at a later date. For example women are screened regularly for the symptoms of breast or cervical cancer, while newborn babies are screened only once for potential metabolic conditions at birth.
5. There are fundamental principles that should underpin any screening programme. The core Principles of Screening (Principles), as agreed by the National Health Committee¹, are as follows:
 - The condition is a suitable candidate for screening.
 - There is a suitable test.
 - There is an effective and accessible treatment or intervention for the condition identified through early detection.
 - There is high quality evidence, ideally from randomised controlled trials, that a screening programme is effective in reducing mortality or morbidity.
 - The potential benefit from the screening programme should outweigh the potential physical and psychological harm (caused by the test, diagnostic procedures and treatment).
 - The health care system will be capable of supporting all necessary elements of the screening pathway, including diagnosis, follow-up and programme evaluation.
 - There is consideration of social and ethical issues.
 - There is consideration of cost-benefit issues.
6. Each of these Principles must be evidenced before a screening programme is considered viable, however arguably one of the most important of these is Principle V – benefit must outweigh harm.
7. The majority of the participants in any screening programme are healthy individuals, and potentially exposing this population to unnecessary harm is always a major consideration. Considerable infrastructure and resource are put in place to ensure the quality of a screening programme is

¹ National Advisory Committee on Health and Disability (National Health Committee). 2003. *Screening Programme Assessment Criteria*. Wellington. https://www.nsu.govt.nz/system/files/resources/screening_to_improve_health.pdf

monitored and kept as high as possible. Safety of participants is of paramount importance. Psychological as well as physical harm must be minimised whilst targeting those most at risk.

- Equity, is a key priority for all screening programmes and recognises that while the screening programmes contribute to keeping New Zealanders well, the health gains are currently not equitably distributed. Evidence of this is frequently seen in programme monitoring reports for Māori, Pacific and Asian populations.

How are screening programmes managed and operated within the Ministry of Health

- The National Screening Unit (NSU) is a business unit in the Service Commissioning Directorate within the Ministry of Health (the Ministry). The NSU does not run the screening programmes directly, however it is responsible for the development, monitoring and oversight of all the screening programmes.
- Specialist providers are contracted by the NSU to screen for specific conditions within clearly defined population groups. This includes District Health Boards, private radiology providers, public and private laboratories, and community based providers.
- The NSU monitors the delivery of the contracted services to ensure that the benefits for the screened population, outweigh the harm of the screening and diagnostic procedures. The aim of all the screening programmes is to improve health outcomes and the quality of life for the screened populations.
- The NSU promotes continuous improvement in the quality of the screening services provided. A high-quality service is evidence-based, regularly monitored and evaluated, people centred, safe and effective and provides the same care and health results to everyone, regardless of their gender, ethnicity, socio-economic status, or where they live.
- To support the programme delivery the NSU supports IT systems for the cancer screening programmes. These IT systems are a critical enabler to providers and the NSU to support invitation and recall services, tracking of participants through the pathway and undertake monitoring and evaluation.
- The IT platforms for cancer screening are programme specific and lack integration, flexibility and scalability that is required in delivering modern health care services. The development of the National Screening Solution for the NBSP will enable the development of an IT solution that is scalable to other screening programmes in the future and support better integration with other health IT systems.

The Bowel Screening Pilot

- The bowel screening pilot (the pilot) was run by Waitemata DHB. The pilot was initially for four years (two-screening rounds) from 2011 to 2015, with a budget of \$24 million. Budget 2015 provided an additional \$12.4 million to extend the pilot for a further screening round, finishing in December 2017.
- The pilot provided New Zealand with a comparator against international evidence. This evidence shows that organised national bowel screening is cost effective, reduces the number of people who die from bowel cancer, and with time reduces the number of people who are diagnosed with the disease. New Zealand is one of the only countries in the Organisation for Economic Co-operation and Development (OECD) that does not have a national bowel screening programme.
- The pilot chose to use the Faecal Immunochemical Test² (FIT), which measures the blood levels in faeces that can be a pre-cursor or suggest the early signs of bowel cancer. A benefit of FIT is that it can be conducted at home, by the invited participant (or with help from a support person). The participant then posts the completed FIT kit directly to the testing laboratory.
- To ensure that the pilot gathered as much data as possible, wide parameters were set. The pilot set the age range for screening between 50 and 74 years, and used the FIT which allows the blood level

² International nomenclature for the bowel screening test has recently changed from iFOBT (immunochemical faecal occult blood test) to FIT (faecal immunochemical test) to distinguish this new test from the old card test called the FOBT (faecal occult blood test) or guaiac test

per millilitre to be adjusted, to determine when to refer participants on to a diagnostic test, usually a colonoscopy. In the pilot, the test level was set at 75ug/ml. Participants whose sample returned 75ug/ml or more were sent for a diagnostic colonoscopy.

19. In the pilot, 39 percent of patients were diagnosed at Stage 1 (localised cancer) compared with 13 percent in the PIPER study (of the non-screened population)³. Diagnosis at Stage 2 and 3 was broadly similar for screened and non-screened populations, but diagnosis at Stage 4 (where cancer has spread to other organs) was significantly lower in the pilot, with only eight percent diagnosed at that stage compared with 24 percent of the unscreened population.
20. There is a strong association between the stage (extent) at which bowel cancer is diagnosed and eventual survival. Those with localised disease (earlier stage) at diagnosis have a 95 percent chance of a five year survival. Those with distant spread (metastases, later stage) have only a 10 percent five year survival rate. New Zealanders are more likely to be diagnosed with advanced stage cancers than people in Australia, the United States of America and the United Kingdom.

The National Bowel Screening Programme

21. New Zealand has one of the highest bowel cancer rates in the world. Bowel cancer is the second most common cause of cancer death in New Zealand after lung cancer, with approximately 3,075 new cases registered and 1,252 deaths in 2013 compared to 3,016 new cases registered, and 1,283 deaths in 2012. New Zealand has the third highest mortality rate for bowel cancer in the OECD for women and the sixth highest for men.
22. In August 2016 Cabinet Social Policy Committee approved the Programme Business case for the full National Bowel Screening Programme roll out at an estimated 20 year whole of life costs of s 9(2)(ba) s 9(2)(ba)(i) (this figure is not public knowledge and is subject to further budget approval).
23. Once implemented across all DHBs the NBSP will:
 - Invite over 700,000 people aged 60 to 74 years to screening every two years.
 - Achieve an expected participation rate of 62% with 210,000 returning a test kit; 9,300 having a colonoscopy and 500-700 have cancer detected.
24. The primary objective of the NBSP is to reduce the mortality rate from bowel cancer, by diagnosing and treating bowel cancer at an earlier, more treatable (and less costly to treat) stage. An additional objective is to identify and remove pre-cancerous advanced adenomas (polyps) from the bowel before they become cancerous. This will, over time, lead to a reduction in bowel cancer.

FIT level and Age range for the NBSP

25. There are two key changes from the pilot that were introduced as part of the NBSP roll out in July 2017. The FIT level was increased to 200ug/ml (from 75ug/ml) and the age range was increased to 60-74 years (from 50-74).
26. In making the decision on the age range and positivity threshold, the Ministry was provided with expert advice by the Bowel Screening Advisory Group and international advisors. Subsequently, the findings of an independent Evaluation Report of the Bowel Screening Pilot (published in February 2017) and work undertaken by the University of Otago, Wellington, have further supported the Ministry's decision.
27. In the general population in New Zealand, 82 percent of colorectal cancers are found in those aged 60 years or over. In the pilot, very similar results were obtained, with about 80 percent of all cancers found in those aged 60-74 years (Figure 1).

³ The PIPER Project Final report 7 August 2015, Health Research Council reference: 11/764

**Average number of annual colon and rectal cancer registrations by age and sex
2010-2012 average**

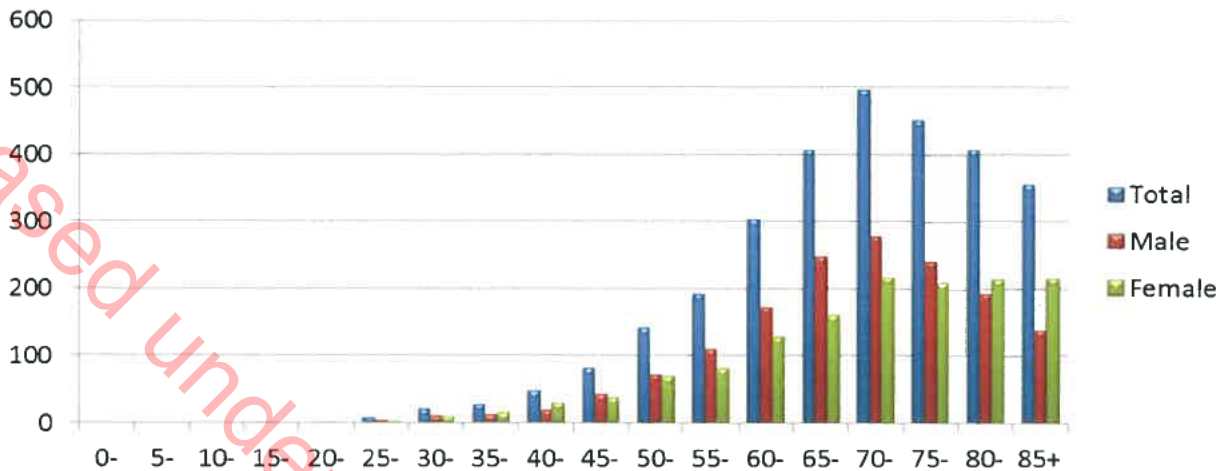


Figure 1

28. The pilot showed there was a strong link between the amount of blood detected in a participant's FIT and the chance of that person having a cancer or an advanced adenoma in their bowel. More than 80 percent of cancers were found following a FIT result of greater than 200ng Hb/ml. Almost 60 percent of cancers were found following a FIT result that was greater or equal to 1000ng Hb/ml.
29. The options on FIT and age range for the NBSP were presented to the Ministry of Health's expert Bowel Screening Advisory Group in late 2015. The group assessed the options and determined that by narrowing the age range and elevating the positivity threshold of a FIT test, it was possible to maximise the number of cancers and advanced adenomas detected while reducing the required number of screening colonoscopy procedures. This would reduce risk for participants and bring screening colonoscopy delivery to a level that better matched capacity.
30. The age range and positivity threshold parameters will be evaluated and reviewed after bowel screening has been successfully implemented. Changes could be made to these parameters if required, once quality, safety and resource issues had also been assessed and is supported by robust clinical evidence.

The screening pathway for the NBSP

31. Bowel Screening is an opt-off programme in which eligible people in the population are automatically invited. Invitation list of new participants are generated through an extract from the National Health Index (NHI) based on the eligible age range and geographical location. This is loaded into the NBSP IT system and generates an invitation letter,
32. This is followed by a consent form and a free bowel screening FIT test kit.
33. Invitation letters, the test kits and follow-up of non-participating invitees is undertaken by the NBSP Coordination Centre.
34. Participants who have taken the FIT test post this to the laboratory in Auckland which tests the sample. All FIT test results (positive or negative) will be sent to the participants' General Practitioner (GP).
35. Participants with a negative result (<200ng Hb/ml) receive a letter to inform them of their result and are automatically re-invited in two years.
36. Participants with a positive result (>200ng Hb/ml) will receive their results from their (GP). This will enable participants to understand their results and be managed and supported along the designated patient pathways. The GP is responsible for referring the participant for colonoscopy at their local DHB or private provider depending on the participant's choice.

37. It is the outcome of the colonoscopy that informs the participant and their GP whether the participant has pre-cancerous cells, early stages of cancer, does not have cancer, or may develop cancer. The subsequent patient pathway is determined by the colonoscopy result.
38. Those with cancer are treated under the cancer treatment programme and leave the NBSP. Those with a healthy bowel will be invited to screen every two years until they age out of the programme at the age of 75.
39. A small group of participants will be scheduled to have surveillance colonoscopies. This will be triggered when the initial colonoscopy result does not detect cancer, but the participant will benefit from further surveillance colonoscopies at a clinically appropriate time interval.
40. The bowel screening pathway is shown in the flow diagram below.

Equity

41. Equity issues identified for the NBSP are similar to equity issues identified for other screening programmes and health in general. Māori are often diagnosed with bowel cancer at a more advanced stage than non-Māori and treatment options are more frequently complicated by a greater level of co-morbidities. Māori, therefore, have more potential to benefit from prevention, early detection, more simple treatment option and better survival outcomes for early stage disease, that result from a screening programme.
42. The NSU has identified points along the screening pathway where participation rates and equity may differ dependent on age, gender and ethnicity and residential area. The NSU has implemented actions to ensure equitable participation in bowel screening, including targeted actions at national, regional and local level for Māori and Pacific Island people as well as people living in decile 9 and 10.
43. These include:
 - Follow up through the National Coordination Centre of participants in priority populations.
 - As part of implementation all DHBs must have an equity plan in place to support priority populations in accessing bowel screening in their communities.
 - Establishing Maori and Pacific leadership and governance across all levels of the programme.
 - Developing key indicators for the NBSP based on lessons learned from the pilot and other screening programmes. These indicators will include measures about participation rates by age, ethnicity or deprivation.
 - The Ministry is establishing two networks, one for Maori hosted by the Midland Regional centre and the Pacific by the central regional centre. The networks connect those working for Maori and Pacific equity in the bowel screening programme to share experience, knowledge and support. Culturally appropriate environments and mechanism to share local and regional learnings will be created.

NBSP implementation

44. The implementation phase for the NBSP is planned to be completed by the end of the 2019/20 financial year. By this date, it is anticipated every district health board (DHB) will be providing free screening to the eligible population.
45. The NSU has implemented a cross sector programme infrastructure to support the roll out and ongoing delivery of the NBSP. This includes:
 - Establishment of a National Coordination Centre which is responsible for the invitation and recall of eligible participants, tracking participants through the pathway, ensuring data is entered on the IT system and follow up participants of high priority populations who have not return a FIT kit for testing.
 - Supporting Four Regional Bowel Screening Centres that will support the NBSP programme to ensure high quality, timely delivery of diagnostic and treatment services. They will be a key part of NBSP clinical leadership to support the quality and safety of the programme.

- District Health Boards who are responsible for the delivery of colonoscopy and treatment services and support priority populations in accessing bowel screening within their community and contribute to the NBSP achieving equity.
 - The national FIT kit testing laboratory which is provided through LabPlus at Auckland DHB, and is responsible for testing all tests kits returned by participants and ensure the results are provided to GPs and the National Coordination Centre.
46. Primary Care has an important role to play in the NBSP, they are responsible for managing positive test results with their patients, referring them for colonoscopy and encouraging participation.

NBSP implementation current implementation status

47. Two out of 20 DHBs have fully implemented the NBSP. On 17 July 2017, Hutt Valley and Wairarapa DHBs began bowel screening, and the first 200 participants were invited to join the NBSP by letter on the 18 July 2017. The first 200 test kits were sent out on 1 August 2017.
48. Hutt Valley DHB is establishing the Central Region Bowel Screening Centre. The other three regional centres are hosted by Southern DHB, Waitemata DHB and HealthShare for the Midland region (regional centres). The regional centres will support their region's DHBs as they: (1) build the necessary capability and capacity; and (2) implement a safe, quality bowel screening service.
49. Waitemata DHB will transition to the NBSP on 1 January 2018. Waitemata's work programme includes concluding the bowel screening pilot, closing the Interim Coordination Centre, and establishing the Northern Region regional centre⁴.
50. From 1 January 2018 Waitemata DHB will only invite new participants aged 60 to 74 years. Those who are aged 50 to 59 years, who continue to live in the Waitemata DHB region, and have previously been invited to participate in the bowel screening pilot will continue to be invited to screen every two years.
51. Southern and Counties Manukau DHB are due to be implemented in the 2017/18 year. Southern DHB will go live in April and Counties Manukau DHB will go live in June 2018.

Planning for DHBs joining the NBSP in 2018/19

52. In November 2016 the Ministry provided indicative timings for the roll-out of the national programme announced by the Minister on 25 November 2016. The roll-out timetable was developed to ensure DHBs were in the best possible position to start the screening programme. (Appendix One).
53. The advantage of a phased roll out is that the roll out order of DHBs can be flexed in order to ensure the safest implementation approach is taken. This could include clustering implementation of DHBs in the same Region for roll out with the NBSP Regional Centre providing support.
54. The Ministry is working with the next DHBs to commence bowel screening in the 2018/19 financial year.
55. There has been a change to the DHB roll-out order published in November 2016. Waikato DHB was scheduled to commence bowel screening in the first half of the 2018/19 year. In discussions with the Ministry, Waikato DHB raised the implementation timeframe for bowel screening. The Acting Chief Executive decided following discussion and advice from key DHB staff, that Waikato DHB would be better placed to begin bowel screening in the 2019/20 financial year as a result of a number of pressures facing the DHB.
56. The Ministry sought an alternative Midland region DHB to go live in 2018/19 and approached Lakes DHB who are performing well with its colonoscopy wait time indicators. Lakes DHB Chief Executive after consultation with key staff, agreed to bring their implementation forward to 2018. The Ministry is confident that Lakes DHB is in a good position to implement the NBSP safely.

⁴ The Ministry undertook an open procurement process for the NBSP National Coordination Centre, which resulted in a contract being awarded to Homecare Medical. Homecare Medical is working with the Ministry and Waitemata DHB to establish the NBSP National Coordination Centre (NCC), which will transition services from the Waitemata DHB interim coordination centre by 1 January 2018

Communicating commencement dates

57. The Ministry is preparing draft communications to confirm the go-live months for Southern and Counties Manukau DHB in the 2017/18 financial year, as well as the change in the roll out order. The communications will be discussed with your office prior to any release.
58. Nelson Marlborough, Lakes and Hawkes Bay DHBs are planned to go live in the first half of the 2018/19 year. Northland, Auckland, Whanganui, Mid Central, Capital and Coast, Canterbury and South Canterbury DHBs will follow in 2019. With the remainder of DHBs going live in the latter part of the 2019/20 year.

Information technology (IT)

59. A fit for purpose national screening information technology (IT) solution is critical for the safe delivery of the NBSP. This will provide a centralised invitation and recall system and tracks the participant's journey through the screening pathway. The IT solution is also critical in the ongoing monitoring and evaluation of the programme.

The interim IT solution

60. The interim IT solution comprises the enhanced pilot IT system, as well as clinical and operational processes, quality assurance and safety monitoring. The pilot IT system was enhanced and extended to support the addition of Hutt Valley and Wairarapa DHBs. The interim IT solution can be safely used by additional DHBs in the short to medium term. It is currently planned to support the first eight DHBs before the national screening IT solution is available.
61. The enhanced pilot IT system may require additional resources which could have an impact on the funding needed. This will be identified in the IT business case.
62. The interim system does not enable a nationally integrated NBSP. DHBs on the interim IT system will be migrated to the national IT solution at the appropriate time.

Components of the National Screening IT Solution

63. The National Screening IT Solution (NSS) has three major components to it; a population register; integration services; and a datamart.
64. The first component is to develop a population register for bowel screening participants. The population register will automate:
 - issuing invitations for initial screening
 - recalling individuals for repeat screening
 - following individuals with identified abnormalities
 - correlating morbidity and mortality results
 - monitoring and some evaluation of the NBSP.
65. The second component is an 'Integration Service' to link the population register to other Ministry IT systems. These systems include the:
 - National Health Index, which this generates a unique patient identifier
 - Health Provider Index, which this generates a unique provider identifier
 - National Enrolment Service (a centralised register with real-time patient enrolment information).
66. The Integration Service will also link the NSS to sector systems, such as ProVation (a database of medical procedures content to improve consistency of electronic health records), laboratory service provider systems, general practice and Gynaecology Plus⁵.
67. A request for proposal for the Integration Service is currently being finalised and will be uploaded to GETS in November 2017.

⁵ See section entitled 'Procurement stage for the population register'.

68. The third part of the NSS is a datamart (or data storage area within a data warehouse), with business intelligence reporting capability. The data will be accessed and analysed to create reports. A request for proposal for the datamart is likely to be issued in 2018.

Procurement for the National Screening Solution population register

69. The Ministry is currently evaluating the proposals received in response to its procurement process for the population register component of the NSS.
70. It is anticipated that contract negotiations with the preferred provider will be completed in early 2018.
71. The procurement timetable for the population register is behind schedule. This is due to an increase in project scope in line with the Digital Health Strategy towards 2021, to provide capacity and capability for other screening programmes in the future.
72. The expanded scope was agreed by the Ministry and Corporate Centre in July 2017, and reported in the July 2017 Major Projects Performance Report. In this report, it was noted that an expanded scope may cause a timing delay. (Treasury is likely to publically release the July 2017 report in 2018.)
73. Once a preferred vendor has been identified the Ministry aims to start work on the detailed design of the population register component of the NSS. This will enable a more informed business case (fixed price, defined scope and implementation timetable) to be submitted to joint Ministers of Health and Finance in June 2018.
74. In order for the Ministry to enter the detailed design phase prior to the submission of the IT business case it will ask you to seek approval from Cabinet to access up to \$2 million of the s 9(2)(f)(iv) capital held in contingency.
75. A full progress report, revised implementation schedule and request to access part of the capital contingency prior to submission of the IT business case will be included in the Cabinet paper you will request from the Ministry to seek an extension of the s 9(2)(f)(iv) held in contingency.

Funding of the NBSP including Budget bids

76. On 24 August 2016, the Cabinet Social Policy Committee approved the Programme Business Case for the full National Bowel Screening Programme roll-out at an estimated 20-year whole of life cost of s 9(2)(ba)(i) (this figure is not public knowledge and is subject to further budget approval).
77. Whilst the Programme Business Case has been approved by Cabinet in principle it required the Ministry to submit a business case for approval, as well as a budget bid, each financial year for the components of the NBSP that will commence operation in the following financial year. Funding announced in the budget is held in contingency until the associated business case has been approved by the joint Ministers' of Health and Finance.
78. Budget 2016 and 2017 allocated a total of \$77.8 million over four years for the establishment of the NBSP. In addition Budget 2016 placed s 9(2)(f)(iv) in contingency for the capital cost of the NBSP, predominantly for the development of the IT to support the NBSP. Cabinet agreed to roll over the contingency to 1 February 2018.
79. As noted in the 60 day decisions document, we will seek your approval to recommend that Cabinet extend the National Bowel Screening information technology capital contingency funding of s 9(2)(f)(iv) from February 2018. A Cabinet paper will be provided in late November as Cabinet must consider this prior to Christmas.
80. The Ministry is preparing a further Budget 2018 and Budget 2019 bids for the remaining cost of the NBSP. The budget bid includes the operational cost for the remaining DHBs to commence the NBSP in the 2018/19 and 2019/20 year as well as some additional operational costs that were not anticipated at the start of implementation.
81. The cost of treatment services (radiology, surgical, oncology etc.) is excluded from the NBSP operational funding as these are already part of DHB baseline funding.

Workforce

82. Health Workforce New Zealand (HWNZ) has developed a workforce plan to ensure there is sufficient workforce capacity to deliver the NBSP. The Ministry has put a number of strategies in place, based on its workforce modelling, to increase clinical resources. These include increasing the number of gastroenterology and surgical trainees, as well as training a small cohort of nurse endoscopists.
83. Currently the training of gastroenterologists and surgeons is constrained by the lack of accredited training institutions. It is anticipated that Southern DHB and MidCentral DHB will be accredited in 2018, which will enable two graduate training places to be offered, one in gastroenterology and one surgical specialist.
84. HWNZ is also looking to increase the number of nurse endoscopists. Currently, there is capacity to train up to six nurse endoscopists each year, and four nurses are currently going through this training. It is anticipated there will be at least four new nurse trainees next year. Nurses need to have prerequisite clinical experience in gastroenterology and academic qualifications (post graduate diploma), which means the pool of nurses able to do the training immediately is limited.
85. A number of DHBs, are working with their nursing staff to bring them up to the prerequisite level. The education needs of nurse endoscopists also needs to be balanced with the training needs of gastroenterologists and general surgeons. All three workforces have a role to play in meeting demand.

Quality, assurance and risk

86. A Governance Group, chaired by the Ministry's Chief Financial Officer has oversight of the NBSP implementation. The Ministry has an external advisor to provide real-time independent quality assurance, who also sits on the Governance Group. This is considered standard good practice for programmes of this scale and cost.
87. The Corporate Centre (The Treasury, the Ministry of Business, Innovation and Employment, and Government Chief Information Officer) regularly monitor the NBSP implementation progress. The Ministry provides quarterly reports to The Treasury's Government Project Portfolio team, NBSP business cases are considered through the Better Business Case clinics (a Corporate Centre activity, coordinated by The Treasury), and at key 'gates' in the NBSP, independent Gateway reviews are undertaken.
88. The Corporate Centre will continue to be engaged through the life of the NBSP.

Next Steps

89. As noted in the March 2017 Cabinet paper the NBSP implementation timetable for DHBs as released in 2016, contains a degree of uncertainty until the completion of the procurement process for the National Screening Solution and the process for detailed design, build and testing of the new system has been agreed with the new vendor.
90. The timetable for the implementation of the NSS will be provided in the technology business case in June 2018 along with any contingent changes to the operational delivery.
91. The NBSP is on a very tight roll out timetable and the Ministry is continually reviewing the implementation plan to ensure a good balance between quality and safety of the service and timeliness of implementation.
92. The Ministry proposes that an update if provided to cabinet in November or December 2017 to:
 - Update Cabinet on the two key phases of the implementation which are:
 - i. Complete the procurement and detailed design phase with the NSS preferred vendor
 - ii. Confirm the implementation order to enable safe roll out of the NBSP.

- iii. Seek Cabinet's approval to carry forward the **s 9(2)(f)(iv)** of contingency funding for the development and implementation of the National Screening Solution
- iv. You could choose to take the Technology business case to Cabinet. The current position is that it is delegated to Ministers of Health and Finance.

END.

Released under the Official Information Act 1982

Appendix One National Bowel Screening Programme DHB Implementation Order as at November 2016

Confirmed roll-outs for throughout 2017/18 financial year:

Waitemata DHB
Hutt Valley DHB
Wairarapa DHB
Counties Manukau DHB
Southern DHB

Indicative timings for other DHBs

Throughout 2018/19 financial year:

Northland DHB
Auckland DHB
Waikato DHB
Hawkes Bay DHB
Whanganui DHB
MidCentral DHB
Capital and Coast DHB
Nelson Marlborough DHB
Canterbury DHB
South Canterbury DHB

Throughout 2019/20 financial year:

Bay of Plenty DHB
Tairāwhiti DHB
Lakes DHB
Taranaki DHB
West Coast DHB