MINISTRY OF HEALTH
MANATŪ HAUORA

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Cabinet Paper – National Bowel Screening Programme Extension of Capital Contingency

To: Hon Dr David Clark, Minister of Health

Purpose

This health report provides you with a Cabinet paper for the extension of the National Bowel Screening Programme (NBSP) capital contingency and the drawdown of $2 million in the 2017/18 financial year as a charge against the NBSP contingency. This Cabinet paper is for your consideration and submission to Cabinet before the end of the 2017 calendar year.

Key points

- The Cabinet paper seeks approval to extend the contingency of s 9(2)(f)(iv) [CAB-16-MIN-0189.14] for Vote Health for the capital component of the National Bowel Screening Programme to 31 December 2018. As well as drawdown $2 million in the 2017/18 financial year as a charge against the NBSP contingency.
- As part of Budget 2016, Cabinet allocated contingency capital funding of s 9(2)(f)(iv) for information technology (IT) development, subject to Cabinet approval of the business case for the National Screening IT solution (NSS). The contingency expires on 1 February 2018.
- The Cabinet paper outlines the progress made to date; the benefits and challenges of implementing the NBSP; and the extended roll-out timeframe. The national roll-out is planned to be completed by the end of 2020/21 financial year (a delay of at least a year from the previously envisaged timeframe). Details of the change to the NBSP implementation timetable are contained in appendix one.
- The NBSP timetable will contain a degree of uncertainty until the completion of the discovery and solution design phase of the NSS development. The timetable for the implementation of the NSS will be provided in the NSS business case in June 2018 along with any contingent changes in the operation delivery.
- 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.
- The approach to the provision of the information technology solution for the NBSP has changed since the Programme Business Case was approved in August 2016. In the Programme Business Case the NBSP information technology solution was to be built by the Ministry. This change in direction was based on the risk profile of developing a bespoke IT platform, as well as providing a consistent approach to other projects such as the electronic health record.
- A requirement of the Programme Business Case approval was the completion of an options analysis by the Ministry to determine if there was an appropriate commercial product available or if building the solution in-house remained the most appropriate option. The options analysis (supported by Ernst and Young) concluded that commercial products are available and a procurement process should be undertaken.

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- The business case for the NSS, required to draw down the contingency, was due to be submitted to the joint Ministers' of Health and Finance in December 2017, at the end of the procurement phase and prior to the expiry of the contingency.
- The Ministry is still progressing the procurement phase for the NSS, originally due for completion in October 2017, due to an extension of scope to provide capacity and capability to support other screening programmes in the future, with the National Cervical Screening Programme highlighted as the next likely adopter of the NSS.
- The NSS business case is dependent on the outcome of the procurement process currently underway, and undertaking the subsequent discovery and solution design phase with the preferred vendor. The business case is expected to be submitted to the joint Ministers' of Health and Finance in June 2018, after the contingency expires on 1 February 2018.
- The Treasury, the Government Chief Digital Officer (GCDO) and the Department of the Prime Minister and Cabinet were consulted on the Cabinet paper and their advice incorporated. The Ministry for Business, Innovation and Employment (MBIE) were informed. The Treasury and GCDO are supportive to the extension to the s 9(2)(f)(iv) capital contingency to 31 December 2018 and early release of $2 million of the contingency for the discovery and solution design phase of the NSS development, as IT development best practice.
- An update on progress of the National Bowel Screening Programme will be provided to Cabinet in June 2018 to align with the submission of the NSS Business Case.

Recommendations

The Ministry recommends that you:

a)	**Note** the progress to date in the implementation of the NBSP, together with the revised approach and extended timeframe for roll-out of the NBSP planned for 2020/21 (a delay of at least a year from the previously envisaged timeframe).	**Yes / No**
b)	**Sign** the attached Cabinet paper and submit the paper to the Cabinet Office on Thursday 11 December 2017.	**Yes / No**

Jill Lane
Director
Service Commissioning

Minister's signature:

Date:

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Draft Cabinet Paper – National Bowel Screening Programme Extension of Capital Contingency

Background

Bowel screening

1. The national bowel screening programme will be available to all eligible 60-74 year olds in New Zealand. Once fully implemented the programme will invite over 700,000 people every two years to participate.

2. The benefits of a national bowel screening programme include:

   - improved health outcomes with up to 500-700 cancers detected each year in the early rounds of population bowel screening, assuming expected uptake levels (based on 62 percent participation).
   - more cost-effective health care. Analysis shows the proposed programme in New Zealand is expected to be cost effective, as has been experienced in all other countries with bowel screening programmes.
   - improved service delivery as a result of the required quality standards associated with population screening having a direct follow on to improvement in symptomatic and surveillance bowel cancer services.
   - significant social and economic benefits, including Quality Adjusted Life Years (QALYs) saved, and an increase in the paid workforce (estimated at s 9(2)(f)(iv) over the 20 year modelled period). The wider contribution to society, for example, from volunteering or acting as caregivers, has been estimated at s 9(2)(f)(iv) over 20 years.

3. 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 3,016 new cases per year 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.

4. A person's 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 number of cases diagnosed each year in New Zealand is therefore expected to increase as our population ages.

5. 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.

6. The primary objective of bowel screening is to reduce the mortality rate from bowel cancer, by diagnosing and treating bowel cancer at an early curable stage. An additional objective is to identify and remove pre-cancerous advanced adenomas from the bowel before they become cancerous, which can, over time, lead to a reduction in bowel cancer.

7. International 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 OECD countries without a national bowel screening programme.

8. The age range for the National Bowel Screening Programme (60-74 years) is comparable to age parameters for other international bowel screening programmes, and focuses on the population cohort that is most at risk. Of all cancers in the Waitemata DHB pilot, 82 percent were detected in this age range.

9. The planned positivity threshold of 200ngHb/ml reduces the harm associated with unnecessary colonoscopies by targeting those most at risk. The faecal immunochemical test (FIT) positivity threshold will be similar to levels used in Ireland and the Netherlands.

10. When the impact of the age range and positivity threshold are combined 62% of the cancers found in the Waitemata DHB pilot will be detected in the NBSP. The age range and positivity threshold parameters will be evaluated and reviewed after screening has been successfully implemented. Changes could be made to these parameters if required, once quality, safety and resource issues have been assessed and robust clinical evidence for the change has been generated.

11. Funding is provided to DHBs for both the planning and implementation phases of commencing bowel screening, as well as the ongoing operational cost of the screening service.

12. In the initial few years of the programme DHBs will experience a temporary increase in demand for surgical and oncology services to treat bowel cancers detected by the NBSP. Ongoing demand for bowel cancer treatment services will drop to below current levels as bowel screening takes effect. DHBs have indicated that they will be able to meet the demand predicted during the temporary increase, and the DHB's business plan will include how referral demand will be managed.

13. There is strong sector and public support for a national bowel screening programme.

Progress to date

14. In line with international experience the national bowel screening programme will be implemented in a staged manner to enable a safe manageable roll-out.

15. The first two DHBs (Hutt Valley and Wairarapa) commenced the NBSP on 17 July 2017. Waitemata will transition to the national programme on completion of the pilot on 1 January 2018.

16. The four regional centres are in place to support their DHBs as they: (1) build the necessary capability and capacity; and (2) implement a safe, quality bowel screening service.

17. The National Coordination Centre assumed responsibility, from the Waitemata DHB interim coordination centre on 27 November 2017 (a month earlier than planned), for the invitation and recall of eligible people and tracking of participants along the screening pathway.

18. Preparations are underway for Southern and Counties Manukau DHBs to commence bowel screening by 30 June 2018. Followed by Nelson Marlborough, Lakes and Hawkes Bay DHBs by 30 November 2018. These eight DHBs will use the interim IT solution.

19. One of the most important considerations for the Ministry is implementing a safe, quality, equitable bowel screening programme without displacing symptomatic patients. A key component of achieving this is the capability and capacity within each DHB. The five performance areas the Ministry uses to assess a DHB's readiness to implement the NBSP are: Colonoscopy Wait Time Indicators; Faster Cancer Treatment targets; financial performance; DHB Electives performance and the DHB's impact assessment.

20. National colonoscopy wait time indicator performance has steadily improved, with patients waiting longer than recommended for a colonoscopy, down 56 percent in June 2017 compared to June 2014. However, increased demand and higher targets for wait times has been a challenge and colonoscopy wait time indicator performance has plateaued over the last quarter.

21. The Ministry is using a number of mechanisms to prepare DHBs to roll-out bowel screening. Expectations are outlined in the DHB annual planning process and the Ministry monitors performance against expectations and symptomatic colonoscopy wait time indicators. The Bowel Screening Regional Centres also support colonoscopy production planning to smooth capacity and demand across the region.

22. DHBs address the five performance areas as part of their NBSP business plans which are incorporated into the DHB implementation business case provided to the Ministers' of Finance and Health. Each year the Ministry provides the implementation business case for those DHBs rolling out bowel screening in the next financial year. Without an approved business case, the Ministry cannot draw down Budget funding to commence bowel screening in that group of DHBs.

Cabinet Paper Summary

The technology solution approach

23. The NBSP Programme Business Case approved in August 2016 included the Ministry developing in-house the required information technology solution.

24. The Ministry, with support from The Treasury and the Government Chief Digital Officer (GCDO), committed to undertaking an options analysis including a market scan for the National Screening IT solution (NSS), as a requirement of the approval of the Programme Business Case.

25. The Ministry partnered with EY to complete the options analysis that concluded commercial products were available and a procurement process should be undertaken.

26. The Ministry expects to identify shortlisted vendors by mid-December 2017. Due diligence will be undertaken with the shortlisted vendors the outcome of the procurement process is known.

27. The discovery and solution design phase will be undertaken with the preferred vendor and sector stakeholders prior to submission of the NSS business case, in line with best practice. Previously it was envisaged that discovery and solution design would be undertaken after the NSS business case was approved, as the capital contingency includes the funding for this phase.

28. To maintain progress towards full implementation of bowel screening in 2020/21, the Ministry investigated the feasibility of extending the pilot IT system beyond Waitemata, Hutt Valley and Wairarapa DHBs. The due diligence identified some changes which are completed or underway but otherwise the pilot IT system was suitable as the interim IT solution until the NSS could be deployed.

29. The number of DHBs that can safely use the interim IT solution, before the NSS is deployed, is limited by the manual processes associated with the interim IT solution, for example the manual data entry of clinical results.

Capital contingency

30. The attached draft Cabinet paper seeks approval to extend the contingency of s 9(2)(f)(iv) for Vote Health for the capital component of the National Bowel Screening Programme to 31 December 2018 and access up to $2 million prior to business case approval.

31. As part of Budget 2016, Cabinet allocated contingency capital funding of s 9(2)(f)(iv) for information technology development, subject to approval by the joint Ministers' of Health and Finance of the business case for the NSS. The contingency originally expired on 1 February 2017 and was extended to 1 February 2018. The profile is as per table 1 below.

Table 1 - Current profile for the capital contingency (due to expire 1 February 2018)

	$m - increase/(decrease)				
	2016/17	2017/18	2018/19	2019/20	2020/21 and Out years
National Bowel Screening Programme Roll-out	s 9(2)(f)(iv)				
Total Capital					

Table 2 - Proposed profile for the capital contingency

	$m - increase/(decrease)				
	2016/17	2017/18	2018/19	2019/20	2020/21 and Out years
National Bowel Screening Programme Roll-out	-	2.000	s 9(2)(f)(iv)	-	-
Total Capital	**-**	**2.000**		**-**	**-**

32. The proposed change to the contingency of s 9(2)(f)(iv) for Vote Health for the capital component of the National Bowel Screening Programme is as per table 2.

33. The business case for the NSS, required to draw down the contingency, will be informed by the outcome of the procurement process, contract negotiation and undertaking the solution design phase with the preferred vendor. This is expected to be completed sufficiently for the business case to be submitted by June 2018. As funding for the IT solution is required to ensure the successful delivery of the National Bowel Screening Programme, the Ministry request that the contingency be extended to 31 December 2018.

34. In order for the Ministry to fund the discovery and solution design phase in the 2017/18 financial year s 9(2)(f)(iv) of the capital contingency fund is required prior to the submission of the NSS business case. This requires agreement by Cabinet to change the basis on which the capital contingency can be drawn down.

Next steps and implementation timing

35. The NBSP timetable will contain a degree of uncertainty until the completion of the discovery and solution design phase of the NSS development. The timetable for the implementation of the NSS will be provided in the NSS business case in June 2018 along with any contingent changes in the operation delivery.

36. The NSS is ready for initial deployment in March 2019. Two DHBs (yet to be confirmed but proposed to be Whanganui and Mid-Central) will roll-out bowel screening by 30 June 2019 using the NSS.

37. The remaining 10 DHBs will commence bowel screening over the next two financial years (2019/20 and 2020/21) using the NSS.

38. The roll-out order of these 10 DHBs will be revisited using the five performance criteria to assess DHB readiness (refer section 19).

39. The key dependencies for DHB implementation is the availability of the NSS in March 2019 and the ability to roll-out new DHBs on the NSS before the first eight DHBs who commenced bowel screening on the interim IT solution migrate to the NSS. This is in addition to the fundamental reliance on the readiness and ability of each DHB to provide clinically safe and appropriate services.

Risks

40. The key areas of concern are the:

    a) retention of the required capital contingency for the National Bowel Screening Programme. This will be mitigated by the extension of the capital contingency funding to 31 December 2018.

    b) ability to switch the capital contingency to operating expenditure on the basis that the NSS is bought "as a service" rather than an asset. The Treasury have advised that this is achievable.

    c) capital contingency is sufficient for the NSS. Detailed work is being undertaken in preparation for the Budget 18 bid to ensure that a realistic forecast is produced for the cost of the NSS.

    d) the Ministry being granted access to $2 million of the capital contingency, in the 2017/18 financial year, in advance of business case approval to undertake the NSS discovery and solution design phase. This need has been signalled in the draft Cabinet paper.

    e) roll-out timing for the 12 remaining DHBs from March 2019 onwards contingent on the NSS being deployed in March 2019, to be confirmed in the NSS business case in June 2018.

    f) the timing of both the NSS business case approval by the joint Ministers' of Health and Finance; and the drawn down of the contingency

41. The Treasury and GCDO are supportive of the extension to the s 9(2)(f)(iv) capital funding contingency to 31 December 2018 and early release of $2 million of the contingency for the discovery and solution design phase of the NSS development, as IT development best practice.

Talking points

42. 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.

43. Bowel screening detects cancers at an earlier, more treatable (and less costly to treat) stage, reduces the mortality rate of bowel cancer, and is cost effective. New Zealand is one of the only OECD countries without a national bowel screening programme.

44. Analysis shows the proposed programme in New Zealand is expected to be very cost effective, as has been experienced in all other countries with bowel screening programmes.

45. The NBSP is well aligned with the updated New Zealand Health Strategy (and Digital Health 2020) and supports the themes of people-powered, care closer to home, one team, smart system and value and high performance.

46. There is strong support, across the health sector, for the introduction of the NBSP. There is a need to maintain momentum towards implementation, particularly given the investment in the NBSP, the bowel screening pilot, reducing colonoscopy waiting lists and workforce development.

47. The NBSP will be available to all eligible 60-74 year olds in New Zealand. Once fully implemented the programme will invite over 700,000 people every two years to participate, and will detect up to 500-700 cancers each year during the early rounds of population bowel screening, assuming similar participation as seen in Waitemata DHB.

48. The age range (60-74 years) and positivity threshold (200ngHb/ml) for the NBSP are comparable to other international bowel screening programmes. This focuses the programme on the population cohort that is most at risk and the point where benefits versus harms of screening are maximised. Of all cancers in the Waitemata DHB pilot, 62 percent were detected in the proposed age range and positivity threshold.

49. 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.

50. The Ministry is working with DHBs as they prepare to implement bowel screening and continues to monitor performance against expectations outlined in the DHB annual plans, and symptomatic colonoscopy wait time indicators.

51. Hutt Valley and Wairarapa DHBs commenced the NBSP on 17 July 2017.

52. The National Coordination Centre took over from the Waitemata DHB coordination centre on 27 November 2017. The National Coordination Centre is responsible for the invitation and recall of eligible participants and tracking participants through the pathway.

53. Waitemata DHB will transition from the pilot to the NBSP on 1 January 2018. The Waitemata population aged 50-59 years who have already been invited to participate in bowel screening will continue to be invited to screen every two-years whilst they continue to live in the Waitemata DHB region.

54. Southern and Counties Manukau DHB will commence bowel screening by 30 June 2018, followed by Nelson Marlborough, Lakes and Hawkes Bay DHBs by the end of November 2018.

55. The national roll-out is planned to be completed by the end of 2020/21 financial year (a delay of at least a year from the previously envisaged timeframe). Details of the change to the NBSP implementation timetable are contained in appendix one.

END.

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Appendix one – National Bowel Screening Programme implementation revised timetable

Milestone	August 2016 Business Case	April 2017 Cabinet paper	Current state
FY2017/18			
Hutt Valley & Wairarapa DHBs implemented	July 2017	July 2017	July 2017
National Coordination Centre in place	January 2018	January 2018	November 2017
Regional Centres in place	January 2018	February 2018	November 2017
Waitemata DHB transitions from Pilot to NBSP	January 2018	January 2018	January 2018
Counties Manukau and Southern DHBs implemented	By June 2018	By June 2018	By June 2018
FY2018/19			
Nelson Marlborough, Lakes and Hawkes Bay DHBs implemented	By June 2018	By December 2018	By December 2018
National Screening IT Solution (NSS) implemented	February 2018	-	March 2019
DHBs 9 and 10 implemented	By December 2018	By June 2019	By June 2019
FY2019/20			
DHBs 11 to 14 implemented	By December 2018	By June 2019	By June 2020
FY2020/21			
DHBs 15 to 20 implemented	By December 2019	By June 2020	By June 2021
FY2021/22			
Migrate the eight DHBs using the interim IT solution to the NSS	-		TBC, likely after 30 June 2021