

~~In Confidence~~

Office of the Associate Minister of Health

Cabinet Social Wellbeing Committee

Endorsement of the BreastScreen Aotearoa Critical Infrastructure Replacement Business Case

Proposal

- 1 This paper seeks Cabinet's Endorsement of the BreastScreen Aotearoa Critical Infrastructure Replacement Business Case that sets out the justification for investing in the replacement of critical Information and Communication Technology (ICT) infrastructure within the national breast screening programme, BreastScreen Aotearoa.
- 2 Once this detailed business case is endorsed approval of the separate implementation business case is delegated to the Minister of Health and Minister of Finance (Joint Ministers) [CAB-21-MIN-0116.14 refers].

Relation to government priorities

- 3 The investment aligns with Government commitments to equitable health outcomes in New Zealand, as it would enable improved identification and targeting of priority group women (wāhine Māori, Pacific women, unscreened and under screened women), including better meeting the commitment to ensuring government services are accessible for ethnic communities. It also provides opportunities to improve access to screening services for disabled people, aligning with the Government commitment to improve health outcomes for disabled people in the New Zealand Disability Strategy.

Executive Summary

- 4 Budget 2021 approved a total of up to \$55.600 million over four years [CAB-21MIN-0116.14: Budget Package: Vote Health refers] to replace vital components of the information and communication technology infrastructure supporting the national breast screening programme, BreastScreen Aotearoa.
- 5 The attached detailed business case (Appendix One) sets out the justification for investing in the replacement of critical ICT infrastructure for the national breast screening programme. s 9(2)(c), s 9(2)(e)

[REDACTED]

- 6 ICT is a critical enabler for the programme and the proposed replacement will provide a breast screening population register which will equip the programme to better reach women, especially in Māori, Pacific and ethnic communities, and Disabled people, who are eligible for breast screening but not currently screened, by enabling direct invitations and targeted campaigns.
- 7 Funding of \$5.353 million was appropriated in Budget 2021 for wider sector consultation, requirement gathering and design activities for a replacement ICT solution. At the end of this, an implementation business case will be prepared confirming the remaining investment required to implement this project.
- 8 Implementation funding of \$50.247 million has been set aside in the *BreastScreen Aotearoa Critical Infrastructure Replacement - Contingency* in Budget 2021. Cabinet authorised joint Ministers to draw down funding from this tagged contingency subject to Cabinet approval of the detailed business case [CAB-21-MIN-0116.14 refers].
- 9 The tagged operating and capital contingencies expire on 1 February 2024, after Joint Ministers agreed in November 2021 and December 2022 to extend their expiry dates including a rollover of funding in 2021/22 to 2022/23 [HR 20212338, H2022018043 refer].
- 10 This paper seeks the endorsement of the attached BreastScreen Aotearoa Critical Infrastructure Replacement Programme Business Case.

Background

- 11 Aotearoa New Zealand provides free breast screening (digital mammography) each year to around 270,000 asymptomatic women aged 45 to 69, through BreastScreen Aotearoa. Mammography delivered through an organised screening programme can reduce mortality from breast cancer in women screened, by 30 per cent.
- 12 A core component of screening programmes is the ICT infrastructure to deliver the programme. Screening programme ICT systems track participants through the pathway and provide invitation/recall services and monitoring/evaluation data.

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s 9(2)(c), s 9(2)(e)

s 9(2)(c), s 9(2)(e)

The ICT platform is no longer fit for purpose and lacks the integration, flexibility and scalability required to deliver modern health care services and support programme changes. s 9(2)(c), s 9(2)(c), s 9(2)(e)

Analysis

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s 9(2)(c), s 9(2)(e)

s 9(2)(c), s 9(2)(e)

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17 Budget 2021 approved a total of up to \$55.600 million over four years [CAB-21MIN-0116.14: Budget Package: Vote Health refers] to invest in the replacement of the ICT infrastructure for BreastScreen Aotearoa.

18 The investment will provide a fit for purpose ICT infrastructure to support the national breast screening programme s 9(2)(c), s 9(2)(e) The new infrastructure will be adaptive to future changes in breast screening best practice and new approaches to managing the health of New Zealanders. The proposed ICT infrastructure replacement will also provide, for the first time, a breast screening population register which will equip the programme to better reach women, especially Māori, Pacific and ethnic women, and Disabled women. The population register will enable disability data to be collected and recorded.

19 The investment will utilise the National Screening Solution (NSS) which was built for the National Bowel Screening Programme. The investment in the NSS was envisaged to nationwide delivery of screening programmes to maximise participation across screening programmes through a national population register.

20 The proposed investment aligns to Te Whatu Ora digital strategy in terms of common national investments and re-use of strategic cloud platforms such as the National Screening Solution and proven Covid investments. These investments also align to our design principles such as strengthened cyber security, setting up for continuous delivery approaches and empowering and engaging consumers in particular for the delivery of equity outcomes.

Improving equity of access to breast screening services

21 Māori and Pacific women experience a greater burden of disease and mortality from breast cancer compared to non-Māori and non-Pacific women. Wāhine Māori and Pacific women had a 65% higher mortality from breast cancer than non-Māori non-Pacific women during the 2007 to 2017 period.

Improving access to the breast screening programme for these priority group women would have a positive impact on equitable outcomes. Māori women with screen-detected breast cancer have the same outcomes as non-Māori. However, their outcomes are poorer if their breast cancer is diagnosed through other means, like finding a lump in your breast.

- 22 Investment in the programme ICT infrastructure would provide additional tools for identifying and engaging with priority group women and improving equity in the programme. The proposed technology would also include a register of eligible women, which is not currently available through the existing ICT system. The population register will utilise existing health data sets, including the National Health Index to provide a register of New Zealanders who are eligible for breast screening services.
- 23 Improved ICT and a population register would help identify and tailor approaches for other priority groups who we may not be reaching. Underserved groups may include disabled people, people who do not speak English, prison populations, the homeless and the LGBTQI+ community. For individuals who belong to two or more underserved groups, approaches and solutions need to be unique and multifaceted to ensure they can participate in the programme. Approaches developed for the COVID-19 response will help to shape the utilisation of this resource.
- 24 The programme ICT infrastructure is also likely to be an important tool for improving equitable access to breast screening through targeted recruitment campaigns. This provides the opportunity to partner with Māori, Pacific, ethnic and disability community leaders and service providers to design approaches that are tailored to be culturally responsive and accessible. This could include but not be limited to running targeted campaigns in different languages and alternative formats to increase understanding and encourage screening.

An “opt-off” service

- 25 A population register also provides the opportunity to move the programme from “opt-on” to “opt-off”. The current system operates as “opt-on”, where women choose to enrol for breast screening via their doctor or by calling 0800 270 200. The new ICT system would allow BreastScreen Aotearoa to operate as an “opt-off” service, where invitations were automatically sent to women when they are eligible for free breast screening. Participants would still have the option to not participate but would not miss out on screening because they do not know they are eligible. This approach is likely to be especially significant for improving equitable access to breast screening and for better engaging with disabled people and others who experience barriers to accessing health services and who have worse health outcomes.

Benefits of Investment

- 26 The key benefits of the proposed investment include:

- 26.1 s 9(2)(c), s 9(2)(e)
- 26.2 Maintain improved health outcomes from breast screening through sustainable ICT to enable the continuation of the breast screening programme. This would maintain mortality gains and early cancer detection for women 45 to 69 who participate in screening.
- 26.3 Reduced inequity in screening access and health outcomes for people with breast cancer as it provides new capability to identify and target priority population group women. Decreased inequity in access to BreastScreen Aotearoa, and in breast cancer mortality and early detection for unscreened or under screened Māori, Pacific and ethnic women, and Disabled women 45 to 69.
- 26.4 Improved participant experience through improved screening timeliness as the adaptive and robust ICT would support the ongoing delivery of the programme and improve the ability to recall and manage appointments. Improvements to the system to better record participants preferences and individual needs will help the service tailor experiences for participants. This could be used for providing a longer appointment where a participant is in a wheelchair or noting that a translator should be booked. This could be especially helpful for people, such as for transgender people disabled women, for whom having to explain their needs every time they interact with the health system can be a barrier to participation.
- 27 The investment would also increase confidence in the BreastScreen Aotearoa programme due to a more adaptive and responsive ICT solution which better meets the programme needs. This would contribute to increased trust by the New Zealand public.

Implementation

The investment

- 28 Investment from this initiative will be used to:
- 28.1 Replace the breast screening Radiology Information System.
- 28.2 Adapt and utilise the National Screening Solution, developed for the bowel screening programme, and other technology infrastructure developed as part of the COVID-19 response where appropriate.
- 28.3 Upgrade the existing Data warehouse from new source systems.
- 28.4 Fund ongoing license, hosting and support fees.

Approach and Timeline

- 29 The project is being delivered in two phases. The Phase 1 investment approved in Budget 2021 was \$5.35 million for requirement gathering and design activities for the replacement ICT solution. This funding is already appropriated. In Phase 2, pending approval of the in-development implementation business case, a further \$50.247 million of funding in tagged contingency will be released for the development, build and implementation of the ICT solution.
- 30 The original timeframes outlined in the Budget Bid for Phase 1 have been updated with a delayed start date of approximately five months. This delay is manageable within the risks associated with the existing end-of-life systems and balanced by the importance of building a replacement system that fully supports the needs of the breast screening programme. Current planning indicates that this will not negatively impact the end date of the project.
- 31 Phase 1 is underway and on track within the adjusted timeframes. The initial funding was used in Phase 1 to undertake wider sector consultation, requirement gathering and design work.
- 32 The second phase of the project will focus on building and delivery of the updated programme ICT infrastructure. The implementation of the change is estimated to be complete by 2025 and the implementation project is expected to conclude with handover to the National Screening Unit (NSU) for 'business as usual'.
- 33 Approximate timeframes are shown below. These milestones and the funding will be reviewed again prior to the finalisation of the implementation business case. Where efficiencies are identified costs and timeframes will be adjusted. The implementation business case, including confirmed timelines, will be submitted to the Minister of Health and the Minister of Finance for approval and requesting draw down of the funding held in tagged contingency.



Monitoring and Assurance

- 34 Internal quality assurance will be provided by the National Public Health Service Technology Portfolio Board. Independent Quality Assurance (IQA) will be provided by an All of Government (AoG) Consultancy Services panel

member, selected using a closed procurement process. External oversight will be provided by the Central Agencies through regular and specific engagement.

- 35 A post-change evaluation will be undertaken within twelve months of implementing the final changes to the ICT support.

Financial Implications

- 36 Budget 2021 approved a total of up to \$55.600 million over four years for the critical BreastScreen Aotearoa ICT infrastructure replacement project. This funding includes:

36.1 **Phase One: Design and Development** – Funding of \$5.353 million comprised of \$3.165 million capital expenditure and \$2.188 million operating expenditure, to support the design activities and the development of an implementation business case.

36.2 **Phase Two: Implementation and ongoing costs** – Tagged contingency funding of \$50.247 million over four years comprised of \$22.565 million capital expenditure and \$27.682 million operating expenditure. This phase would deliver the new ICT solution to support the national breast screening programme. The tagged contingency funding is set aside based on the estimated cost for the delivery of the new solution and the associated ongoing support, licencing and depreciation over the four-year period.

- 37 Given the recent changes to the accounting treatment of Software as a Service (SaaS) implementation costs, the tagged capital funding will need to be converted into operating funding. The potential impact on the operating and capital expenditure split will be confirmed in the implementation business case.

- 38 The estimated whole of life costs are \$76.81 million over twenty years. The indicative costs and the funding required for implementation will be further refined during the development and the finalisation of the implementation business case.

Legislative Implications

- 39 There are no legislative implications associated with this proposal.

Impact Analysis

Regulatory Impact Statement

- 40 There are no regulatory impacts associated with this proposal.

Climate Implications of Policy Assessment

- 41 There are no climate change impacts associated with this proposal.

Population Implications

- 42 The national breast screening programme is a population screening programme. It has been successful in finding breast cancer earlier and reducing mortality from breast cancer in New Zealand. Investment in critical ICT infrastructure will support the continued sustainability of the breast screening programme. Reducing mortality from breast cancer means that more women live longer, supporting their families and contributing to society through paid or non-paid activities. This has implications not only for screening participants but for whanau, friends and communities of all genders and ages.
- 43 Key benefits identified for this investment have implications at a population level.



 <p>Health (primary) Maintain improved health outcomes</p>	<p>Maintain reduced mortality from breast cancer: BreastScreen Aotearoa achieves the expected mortality benefit from providing a breast screening programme. Investing in the sustainability of the programme ICT would maintain the mortality reduction being achieved for women who participate in the programme.</p> <p>Maintain increased early breast cancer detection: BreastScreen Aotearoa achieves expected early detection rates from providing a breast screening programme. Early detection is associated with better outcomes, including less intensive treatment and increased likelihood of successful treatment. In some cases, treatment would be less expensive. Investing in the sustainability of programme ICT would maintain the gains from early breast cancer detection for women who participate in the programme.</p>
 <p>Health (primary) Reduced inequalities in screening access and health outcomes</p>	<p>Decreased inequity in access to BreastScreen Aotearoa: This investment would provide improved tools to support efforts on providing equitable access to screening services especially for Māori, Pacific women as well as other underserved groups like ethnic communities and disabled women.</p> <p>Decreased inequity in outcomes for people with breast cancer: Organised breast screening programmes have been shown to reduce mortality from breast cancer, and outcomes for Māori and Pacific women who have screen detected cancer are similar to Other women. As a result of targeting to improve access to screening services, the proportion of breast cancers diagnosed at earlier stages would increase for Māori and Pacific women. Early detection is associated with better outcomes.</p>

Table 2: Key Quantified Non-Monetary Benefits

- 44 In addition, the investment will provide better tools to understand who is participating in the programme and who is not. The Government has committed to improving healthcare outcomes for disabled people under the New Zealand Disability Strategy. However, data is not currently collected on eligible disabled people who access breast screening. Without this information, the levels of participation remain unclear, and it is unknown if the screening programme is honouring the commitment to improve health outcomes for disabled people.

Human Rights

- 45 Implications of the New Zealand Bill of Rights Act 1990 and the Human Rights Act 1993 have been considered for this project because to be eligible for the programme, a person must identify as female or have been assigned female at birth and be within a defined age range. However, the discrimination is justified because gender and age are important for determining who will benefit from taking part in routine breast screening programmes.

Consultation

- 46 The following agencies have been consulted on this Cabinet Paper: the Department of the Prime Minister and Cabinet; the Treasury; Whaikaha - Ministry of Disabled People; Ministry of Social Development; Ministry for Women; Te Puni Kōkiri; Ministry for Ethnic Communities; The Ministry of Health; Te Aka Whai Ora and the Ministry for Pacific Peoples.

Communications

- 47 The Associate Minister of Health announced the investment with a public event and press release on 9 May 2021. The Ministry of Health provided a communications update to stakeholders following the public announcement. Te Whatu Ora is developing a detailed communication plan to support the next stages of communication and sector engagement.

Proactive Release

- 48 The Associate Minister intends to release the Cabinet paper proactively, subject to redaction as appropriate under the Official Information Act 1982.

Recommendations

The Associate Minister of Health recommends that the Committee:

- 1 note that Aotearoa New Zealand provides free breast screening (digital mammography) each year to around 270,000 asymptomatic women aged 45 to 69, through BreastScreen Aotearoa.
- 2 note Mammography delivered through an organised screening programme can reduce mortality from breast cancer in women screened, by 30 per cent.
- 3 note that in Budget 2021 Cabinet agreed total funding of up to \$55.600 million over four years for the replacement of critical ICT infrastructure for the national breast screening programme [CAB-21MIN-0116.14 refers].
- 4 note that \$5.353 million has been appropriated for Phase One, comprised of \$3.165 million capital expenditure and \$2.188 million operating expenditure, to support the design activities and the development of an implementation business case.
- 5 note that \$50.247 million of implementation funding over four years is set aside in *BreastScreen Aotearoa Critical Infrastructure Replacement - Contingency* in Budget 2021 based on the indicative costs for Phase Two, comprised of \$22.565 million capital expenditure and \$27.682 million operating expenditure. The costs will be further refined as part of the implementation business case. Work to date indicates that costs, including a risk contingency, are expected to fall within the tagged contingency amount.
- 6 note that the Minister of Health and Minister of Finance are authorised to draw down funding from the above tagged contingency subject to Cabinet approval of the detailed business case [CAB-21MIN-0116.14 refers].
- 7 endorse the Critical Infrastructure Replacement Business case that sets out the justification for investing in the replacement of critical ICT infrastructure that supports the national breast screening programme.

Authorised for lodgement

Hon Willow-Jean Prime

Associate Minister of Health