

# An abdominal aortic aneurysm (AAA) screening programme to improve health outcomes for Māori

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# The problem

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Health inequalities between Māori and non-Māori New Zealanders are large, pervasive, and persist across the lifespan and over time

- 7 to 9 year gap in life expectancy between Māori and non-Māori New Zealanders
- Māori develop and die from abdominal aortic aneurysms (AAA) 8 years younger than New Zealand Europeans
- Only 40% of AAA detected in Māori are repaired by elective surgery (61% in Europeans)

# Overall aim

- Help Māori in our region to live longer and enjoy a better quality of life
- Save Māori lives by reducing mortality from AAA



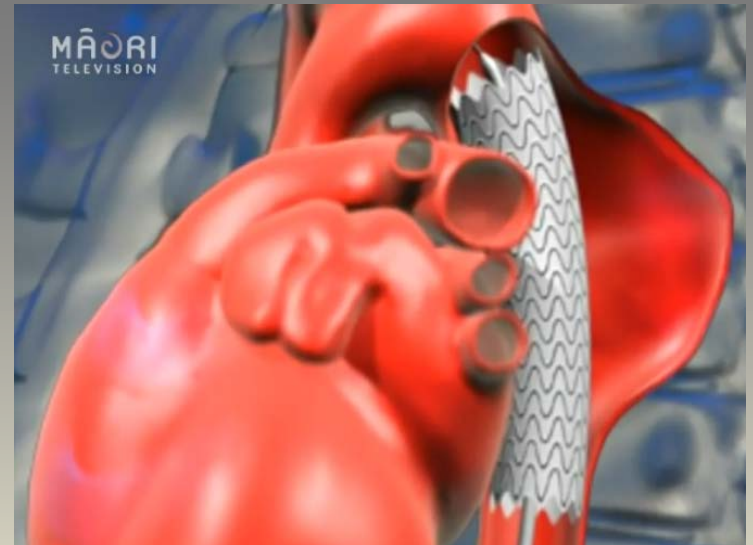
Develop and test New Zealand's first  
Māori-specific Abdominal Aortic Aneurysm (AAA)  
screening programme in partnership with  
mana whenua





# Programme development

- **Research:**  
Epidemiologic investigation quantifying for the first time the burden of disease in NZ due to AAA and demonstrating enormous ethnic inequalities in AAA incidence and mortality in New Zealand
- **New policy development:**  
Board approval to screen all Māori in Auckland and Waitemata DHBs and addition of an innovative method of heart arrhythmia (atrial fibrillation) screening



# AAA screening programme

- **Simple solution:**

A free once-in-a-lifetime ultrasound scan of the abdomen to detect AAA undertaken by a Māori ultrasound technician



- **Creative concepts:**  
Applied a Māori kaupapa approach using the He Pikinga Waiora Implementation Framework



# Innovative business model

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- Applied rigorous health needs analysis methods with a specific focus on reducing ethnic health inequalities
- Used cost-effectiveness modeling adapting a Cambridge University model in collaboration with Otago University

# AAA screening results

A simple ultrasound scan is an acceptable screening test for Māori with high participation rates

Prevalence



Participation



2.5% prevalence



3.9% prevalence



Prevent 5 AAA  
related deaths  
20 QALY at  
\$9,700/QALY





# Results

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- **183% return on investment**
- Additional benefits can be realised by offering smoking cessation advice and cardiovascular disease risk assessment at time of screening



# What we have learnt

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- ✓ Public services can be made to work for Māori and can achieve outstanding outcomes at an affordable cost
- ✓ Health inequalities are not inevitable for Māori and can be reduced through appropriately designed and conducted interventions
- ✓ Extraordinarily high participation rate achieved in this pilot offers a model for other screening programmes and for wider social services generally