

Healthy hearts, healthy nation

Priorities for a national
heart health action plan



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Executive summary

Cardiovascular disease is a group of conditions that affects the heart and blood vessels. These include angina, heart failure, heart attacks, coronary artery diseases, stroke and other conditions and are responsible for almost 10,000 deaths each year ⁽ⁱ⁾. Together these conditions are the leading cause of health loss in Aotearoa New Zealand.

Including high blood pressure, more than a million of us are living with heart and circulatory disease, and at increased risk of chronic heart-related disease or stroke ⁽ⁱⁱ⁾.

In 2020, the Heart Foundation released a white paper titled *Improving heart health outcomes for New Zealand*. The paper highlighted the unacceptable burden of heart disease and stroke, and the urgent need for a coordinated national action plan to improve outcomes for all New Zealanders.

The Government has since released Te Pae Tata, the Interim New Zealand Health Plan 2022. Health system reforms present a unique opportunity to address the gap in heart health systematically and fairly, and to allow many thousands of New Zealanders to live longer and healthier lives. The plan sets out the ambitions for a healthy Aotearoa New Zealand, yet a clear commitment to reducing the burden of heart disease and stroke is not evident.

As many as one in four deaths from heart disease and stroke are avoidable through better prevention, more timely access to health care, and better treatment and support ⁽ⁱⁱⁱ⁾. The Heart Foundation believes this must be a priority for the health of the nation and will result in huge savings for the health and disability system as almost one in every eight health dollars is currently spent treating heart disease and stroke ^(iv). Most of this expenditure is on premature and avoidable chronic heart conditions.

A national action plan to improve heart health outcomes is a plan for health equity. One in two Māori, Pacific and South Asian deaths caused by heart disease and stroke are avoidable, as are those in the lowest income communities. Avoidable death due to heart-related disease and stroke is the single biggest contributor to the life expectancy gap between Māori, Pacific and European New Zealanders ^(iii, xiii).

Coordinated national approaches make a difference and compared to nations that have committed to accountable heart health strategies, Aotearoa New Zealand is falling behind in reducing the burden of heart and circulatory disease ^(v,vi).

In this 2023 update of our white paper, we review progress against the 2020 call to action and reiterate where we see the priorities for a more coordinated and purposeful heart health system.

We believe health goals must include a national action plan for heart health that target practical improvements in prevention, detection and management, timely access to care and support, improved survival for out-of-hospital cardiac arrest and have clear and transparent accountability for improving outcomes.

Since the Heart Foundation called for a national heart health plan three years ago, almost 30,000 New Zealanders have lost their lives to heart disease and stroke. We estimate 7,000 of those deaths were premature and avoidable. Deaths that can be avoided through better prevention and improved and timely access to evidence-based health care.

Aotearoa New Zealand urgently needs a heart health action plan

We recommend that a national heart health action plan sets bold and achievable targets for better heart health and identify six key areas that build on current strengths and have the potential to significantly reduce the impact of heart disease and stroke on all New Zealanders.

An ambitious and achievable target for better heart health

We propose high level goals to:

- reduce avoidable heart disease mortality and morbidity by at least 30% by 2035, 40% by 2040, and by 50% by 2050
- reduce the proportion of Māori and Pacific deaths caused by heart disease that are avoidable from 50% to 35% by 2030, and to 25% by 2040.

1. Reduce the risk of heart-related disease through prevention

Goal 1: Reverse the declining trends in consumption of healthy food and physical activity and achieve minimal smoking for all populations by 2025.

Actions

- 1.1 Reduce barriers for families to accessing affordable healthy food and physical activity.
- 1.2 Education settings become health promoting environments that set up children for life.
- 1.3 Reduce smoking rates among all New Zealanders to under 5% by 2025.

2. Early detection and management of heart disease

Goal 2: 95% of eligible New Zealanders are risk assessed for cardiovascular disease (heart disease and stroke) and have their risk managed.

Actions

- 2.1 Resource, encourage and support primary health care, allied health and community providers to routinely risk assess and manage all eligible New Zealanders for cardiovascular disease.
- 2.2 Improve hypertension awareness, diagnosis and management by 25% by 2030.

3. Timely access to evidence-based and effective care and support

Goal 3: Reduce hospitalisations for acute heart disease and stroke by 50% by 2040, with a particular focus on Māori, Pacific and South Asian populations.

Actions

- 3.1 Give communities at high risk of heart disease a voice in how to remove the barriers to accessing timely heart health care and be accountable for the response.
- 3.2 Ensure all New Zealanders with established heart disease have sustainable and timely access to the best treatment, care and support with transparent reporting of performance metrics.
- 3.3 Educate New Zealanders about heart attack symptoms and how to access emergency health care promptly.

4. Increase survival rates for out-of-hospital cardiac arrest

Goal 4: Increase the survival rates for out-of-hospital cardiac arrest by 25% by 2030.

Actions

- 4.1 Include CPR and AED training as part of the school curriculum.
- 4.2 Address the inequitable access to automated external defibrillators (AEDs) in the community.

5. A more transparent and accountable health system

Goal 5: Set clear accountable goals for heart disease risk management and outcomes and provide adequate resourcing and incentives to achieve them.

Actions

- 5.1 Track performance for the prevention and management of heart disease using key performance metrics.
- 5.2 Resource health, social and community services to achieve heart health goals.

6. Support a world class health workforce to translate research into practice

Goal 6: Aotearoa New Zealand attracts and maintains a world-class health workforce delivering world-class heart health care.

Actions

- 6.1 Ensure translation of life-saving research into practice.
- 6.2 Attract and sustain a high-quality health workforce where it is needed.

How has Aotearoa New Zealand performed on heart health since 2020?

The Heart Foundation published a white paper for heart health in 2020. At that time we called for a long-term national heart health action plan to focus on better prevention, detection and management of heart disease and stroke.

Since 2020, 30,000 people have lost their lives to heart disease or stroke in Aotearoa New Zealand, of which around one in four were avoidable. The gaps in avoidable heart disease deaths are not showing signs of closing, with rates still much higher for Māori, Pacific and those living in areas of highest deprivation.

In 2023 it is disappointing that Aotearoa New Zealand still has no clear or cohesive plan for heart health. Some actions have been taken, such as legislation to achieve Smokefree Aotearoa by 2025, and improved reporting on health systems quality. However, these have been put in place largely in isolation of each other. Some actions that will contribute to better heart health that have been put in place since the 2020 white paper are summarised in the following table.

Action	Progress
Develop a New Zealand heart health action plan	<ul style="list-style-type: none"> No progress
<p>1. Prevention</p> <p>Stronger systems set up children for healthier lives, reduce smoking and improve the food system.</p>	<ul style="list-style-type: none"> The Government's Smokefree 2025 action plan was published in 2021, followed by the Smokefree Environments and Regulated Products (Smoked Tobacco) Amendment Bill in 2022. Daily smoking rates have declined to 8% of all adults in 2022 from 12% in 2020. Ka Ora Ka Ako, the government's school lunch programme has rolled out to 950 eligible schools. Less than 7% of adults meet new fruit and vegetable guidelines⁽ⁱⁱ⁾.
<p>2. Early detection and management of heart disease</p> <p>Ensuring all eligible New Zealanders had heart health risk assessments and advice on management.</p>	<ul style="list-style-type: none"> National equations for cardiovascular disease risk assessment have been published and made available online, although access is still not universal. The Heart Foundation launched My Heart Check, a free online heart health check. Over 120,000 checks have been completed so far.

<p>3. Timely access to effective care and support</p> <p>Reduce the barriers to accessing heart health care and improve access to evidence-based treatments.</p>	<ul style="list-style-type: none"> • No statistically significant change in the rates of hospitalisations for heart disease and stroke since 2020 ^(vii). • A deterioration in timely access to angiography following an acute coronary syndrome presentation in 2022 ^(viii). • Significant regional variation in access to specialist opinion, diagnostic services including echocardiography, CT angiography, electrophysiology, and invasive angiography remains. Significant regional variation in revascularisation, cardiac surgery and valve intervention persist ^(ix). • Access to timely evidence-based guideline care remains limited. Current examples include restricted access to new diabetes drugs that improve heart health outcomes were made available to high-risk populations only by special authority. • Patients in Aotearoa New Zealand have limited access to evidence-based treatment for heart failure. SGLT-II inhibitors are a recommended foundation pillar of heart failure care in international guidelines (Level I A) and are not currently funded for this indication in Aotearoa New Zealand. Sacubitril-Valsartan is a recommended foundation pillar for heart failure (Level I B) but available with restricted access only.
<p>4. Survival</p> <p>Help New Zealanders recognise the warning signs of heart disease and stroke, introduce CPR and AED training in the the school curriculum ^(x) and improve access to defibrillators (AEDs) in the community.</p>	<ul style="list-style-type: none"> • CPR and AED training in schools is not mandatory but is recommended by the Ministry of Education. Schools are told the benefits of teaching CPR to students, but it is not a requirement in schools ^(x). • Access to AEDs in the community is increasing, but community responders with an AED only reach 5% of out-of-hospital cardiac arrests. There is still a discrepancy between incidence and access to first responders with an AED. Rates of cardiac arrest in the community remain higher in low income and rural communities and have lower rates of survival ^(xi).
<p>5. A more transparent and accountable health system</p> <p>Tracking performance towards preventing, screening, treating and reducing heart disease.</p>	<ul style="list-style-type: none"> • The Health System Quality Dashboard was published in 2022 with high level data on heart disease and stroke hospitalisations for Māori and non-Māori ^(xii). • There is still no systematic approach to heart disease risk assessment and management.

About the Heart Foundation

The Heart Foundation is New Zealand's heart charity, leading the fight against our country's single biggest killer – heart disease – since 1968.

Our purpose is to stop all people in New Zealand dying prematurely from heart disease and enable people with heart disease to live full lives.

Every day, we connect with communities across the country providing much-needed support, care and advice to people and their families affected by heart disease.

Since 1968, we have funded more than \$85 million of leading-edge research and specialist cardiologist training.

Our education and prevention programmes tackle heart disease head-on in the community, where it is needed most. The work that we do with young children creates a foundation for keeping hearts healthy into the future.

What is cardiovascular disease?

Cardiovascular disease is a group of conditions that affects the heart and blood vessels. These include angina, heart failure, heart attacks, coronary artery diseases, stroke and other conditions. Altogether, cardiovascular disease is responsible for three in every ten deaths and is the leading cause of health loss in Aotearoa New Zealand.

Heart disease is highly preventable and treatable. Much of the current burden of it could be avoided with effective strategies for prevention, diagnosis and timely treatment and care.

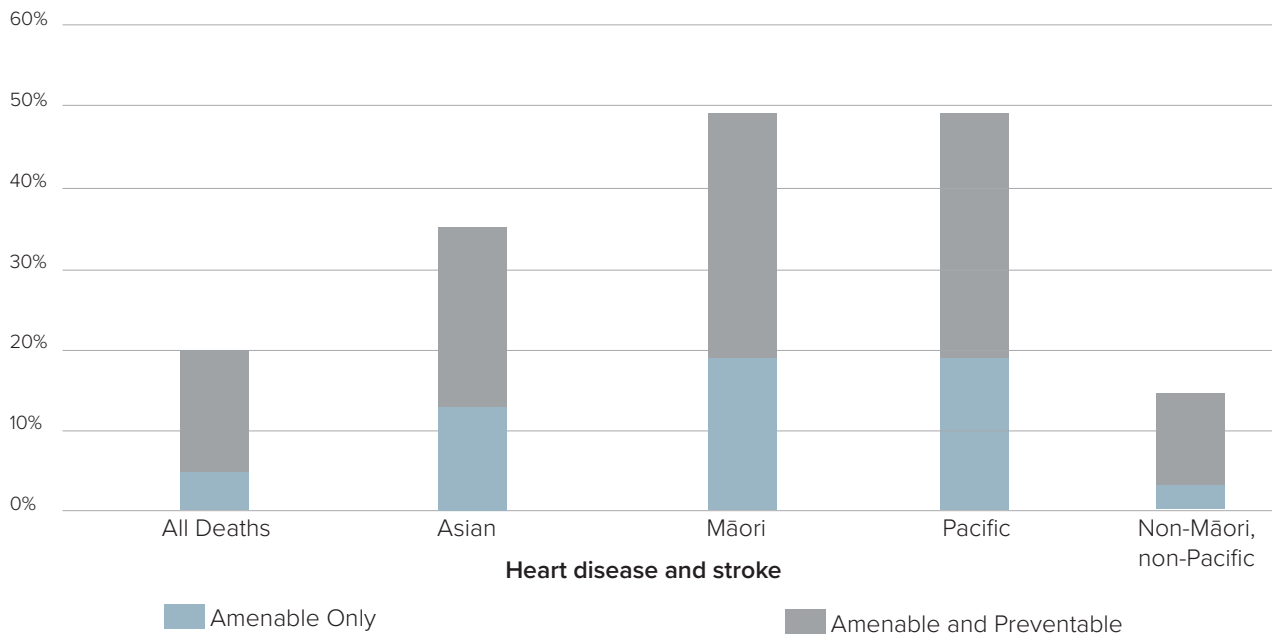
The avoidable burden of heart disease and stroke in Aotearoa New Zealand

Including hypertension, more than a million adults in Aotearoa New Zealand are living with heart and circulatory disease, and each year around 10,000 people will lose their life to heart disease or stroke. One in four deaths are premature and avoidable⁽ⁱⁱⁱ⁾.

The impact of heart disease and stroke is far from equal. New Zealanders living in the most deprived neighbourhoods are twice as likely to lose their life to avoidable heart disease than those in the least deprived areas.

This gap is especially concerning for Māori and Pacific peoples. It has been estimated that avoidable heart disease and stroke accounts for a year of the life expectancy gap between Māori, Pacific and non-Māori, non-Pacific New Zealanders^(xiii).

Percentage of avoidable heart disease and stroke deaths by ethnicity.
(Using methodology from Walsh/Grey)



We can change heart health outcomes for the better

We know that improvements in prevention and management could make significant and rapid improvements for Aotearoa New Zealand's heart health, and especially for health equity. However, Aotearoa New Zealand still lacks a clear roadmap for addressing the ongoing burden of heart disease.

A heart health plan must make sure we do better at the things we already know work, such as implementation of current evidence and guidelines, and recognise what is not working for many people. It must work with them to create a heart health system that is fair for everyone.

This includes a fairer approach to prevention, ensuring people understand and manage their heart health risks, improving access to effective treatment, and working with communities to know what to do if someone experiences the signs of a heart problem, or has a cardiac arrest.

Major health system restructuring and a focus on Māori health presents a timely opportunity to put the spotlight on heart disease as the leading preventable cause of health loss in Aotearoa New Zealand, and the single biggest contributor to the life expectancy gap between Māori, Pacific and non-Māori, non-Pacific New Zealanders. Our white paper proposals focus on creating an evidence-based and world-class heart health system that works for everyone, especially those who currently face the greatest burden of heart disease.

A national heart health action plan must support and sustain the gains we can make within the health system by facilitating heart-healthy environments that support living smokefree, healthy eating and being active – ensuring that we create future heart healthy generations.

This updated white paper for heart health reiterates our urgent call for a coordinated national plan and strengthens this call by proposing tangible targets to improve outcomes for all.

Heart Foundation priorities for a national heart health action plan

Aotearoa New Zealand urgently needs a national plan for heart health that lays out ambitious goals for heart disease prevention and the health system. Goals should focus on outcomes and the steps to achieve and sustain better outcomes for everyone. Performance metrics should be transparent and informed by these goals.

An ambitious and achievable target for better heart health

We propose high level goals to:

- reduce avoidable heart disease mortality and morbidity by at least 30% by 2035, 40% by 2040, and by 50% by 2050
- reduce the proportion of Māori and Pacific deaths caused by heart disease that are avoidable from 50% to 35% by 2030, and to 25% by 2040.

The actions in the plan will benefit everyone, including older heart patients. However, longer-term improvements require more focus on reducing the proportion of deaths that are avoidable.

Avoidable deaths are defined as those before the age of 75 that could have been avoided by timely access to care and support, and through better prevention. Doing these things well benefits everyone as it reduces the preventable burden on the health system, improves access to treatment for those who experience heart disease later in life and contributes to a population that lives longer.

It requires a balance between improving outcomes for those at most immediate risk of heart disease by improving access to care and support, building a strong approach to heart disease risk screening and management and ensuring better large scale and sustainable outcomes longer-term through effective prevention.

Our six priorities for a national heart health action plan are:

1. Reduce the risk of heart-related disease through prevention

Goal 1: Reverse the declining trends in consumption of healthy food and physical activity and achieve minimal smoking for all populations by 2025.

A strong prevention system is an investment in future generations living longer healthier lives, with far less burden of heart disease. It is a vital complement to other actions in this plan that reduce the more immediate risk of heart disease to older populations and create a sustainable heart-healthy Aotearoa New Zealand.

Actions

- 1.1 Reduce barriers for families to accessing affordable healthy food and physical activity.
Consumption of healthy foods has been declining for a number of years. This has been accompanied by significant increases in the cost of living and reduced affordability and access to healthy choices. Despite efforts to improve public awareness about good nutrition, and work with communities on actions for healthy eating, physical activity and healthy weight, the barriers in front of families to makes those changes are considerable. Strong action to rebalance the food system and remove these barriers for families is urgently needed. This includes a national food strategy.

1.2 Education settings become health promoting environments that set children up for life.

Early childhood and school years are a vital time for establishing healthy behaviours, but access to healthy school and early learning environments is inconsistent. Guidelines are often vague or open to wide interpretation. All children and families should have the same access and rights to a healthy learning environment that is connected to their community. We encourage the expansion of evidence-based approaches to healthy schools, and early learning services to all. This requires stronger direction in the curriculum for evidence-based education on health, and clear expectations in national administration guidelines for healthy learning environments.

1.3 Reduce smoking rates among all New Zealanders to under 5% by 2025.

Aotearoa New Zealand has a world leading goal to be Smokefree by 2025. We welcome the Government's plan to achieve this goal, and recent legislation to regulate smoked tobacco. Given the high association between smoking and heart health risk, brief interventions on smoking and access to support to quit should be a systematic part of any health and social system interaction with a person who still smokes. This is particularly urgent as nicotine cigarettes will no longer be sold from 2025, and many New Zealanders will face withdrawal.

2. Early detection and management of heart disease

Goal 2: 95% of eligible New Zealanders are risk assessed for cardiovascular disease (heart disease and stroke) and have their risk managed.

In 2019, the Ministry of Health published the new risk equations that predict an individual's future risk of cardiovascular disease. Implementation guidelines prioritise priority populations, including screening Māori men from age 30 and people with mental health conditions from age 25^(xiv, xv). This has huge potential to improve outcomes for heart health as it is a prime opportunity to offer interventions and management of key risk factors such as smoking, weight management and cholesterol. However, there is currently no systematic approach to risk assessment, management or performance metrics.

Actions

2.1 Resource, encourage and support primary health care, allied health and community providers to routinely risk assess and manage all eligible New Zealanders for cardiovascular disease.

All New Zealanders must have access to regular heart health risk assessments in line with current guidelines. Instead of the current ad-hoc approach to risk assessment, we propose an all-of-health system goal to routinely assess eligible populations for heart disease risk. This must include resourcing primary care to manage patient risk through brief intervention, preventive treatment and elective care. Achieving this target should be appropriately resourced to focus on priority populations and have clear treatment goals and performance metrics.

2.2 Improve hypertension awareness, diagnosis and management by 25% by 2030.

High blood pressure (hypertension) is the number one risk factor for heart disease and stroke, affecting 1.3 billion people worldwide, or one in four adults. Of these, fewer than one in five have it under control^(vi).

In Aotearoa New Zealand close to one in five adults and over two in five people over 65 years of age have elevated blood pressure (>140/90mm Hg)⁽ⁱⁱ⁾. Less than one in three New Zealanders with elevated blood pressure have it well controlled. Better awareness, diagnosis and management of hypertension with transparent performance metrics, as part of risk management for heart disease and stroke, provides the single biggest and most immediate opportunity to improve heart health in Aotearoa New Zealand.

3. Timely access to evidence-based and effective care and support

Goal 3: Reduce hospitalisations for acute heart disease and stroke by 50% by 2040, with a focus on high risk populations.

Health system reform is a key opportunity to focus on the barriers to accessing heart health care for high-risk populations including Māori, Pacific, low income, and older New Zealanders who often access the care they require too late. For Māori and Pacific in particular, people often don't access the health system until it's an emergency, as opposed to having risks detected early and managed in a way that could dramatically improve risk of acute heart disease. This is an entirely preventable failure of the health system, and one that requires a focus not just on early risk management, but on removing the barriers to heart health care.

Reasons for this are complex, and include historical injustices, prejudice and mistrust in the health system, struggles for resources including doctors, health literacy and geographical isolation ^(xvi). Often those regions with the greatest demand for better heart health are those with poorest access.

Actions

- 3.1 Give communities at high risk of heart disease a voice in how to remove the barriers to accessing timely heart health care and be accountable for the response.

The health system reforms present a key opportunity to give communities with lowest access to heart health care a voice, to understand what is not working and to ensure better heart health is at the centre of rebuilding a health system that works for everybody.

- 3.2 Ensure all New Zealanders with established heart disease have sustainable and timely access to the best treatment, care and support with transparent reporting of performance metrics.

Almost half of Māori and Pacific deaths from heart disease are amenable, meaning that they are premature, and could have been avoided by better prevention and more timely access to health care. This compares to around 17% for non-Māori, non-Pacific New Zealanders. This is equivalent to around 800 excess premature deaths a year for Māori and Pacific people ⁽ⁱⁱⁱ⁾.

This disparity has remained the same for almost a decade, with little sign of changing. The health system must urgently address the unfair access to prevention, treatment and heart health care that is failing huge sections of the population.

Action should include sustained public health campaigns to raise awareness of the early signs of heart health issues, more systematic approaches to raising community awareness and more timely access to specialist opinion and care and treatment of risk factors such as high blood pressure and cholesterol. In particular, ensuring New Zealanders have access to current, effective and cost-effective drug treatments that would reduce heart health risk and improve quality of life.

- 3.3 Educate New Zealanders about heart attack symptoms and how to access emergency health care promptly.

Over a third of New Zealanders who had a severe heart attack waited more than two hours from the first signs to call an ambulance ^(xvi), massively decreasing their chance of survival. Systematic population level campaigns and community education should ensure people at risk of heart disease, and those who live, learn, work and play with them know the signs and do not delay calling 111.

4. Increase survival rates for out-of-hospital cardiac arrest

Goal 4: Increase the survival rates for out-of-hospital cardiac arrest by 25% by 2030.

More than 2,300 people experienced a cardiac arrest in the community or at home in the year ending June 2022. Survival rates improve significantly when there is early access to a defibrillator and someone who can provide CPR. Outcomes also improve when people recognise the signs and seek help quickly.

Despite this, in Aotearoa New Zealand only one in ten people who suffer an out-of-hospital cardiac arrest survive to hospital discharge compared to one in seven in 2018. The survival rate is increased for bystander witnessed cardiac arrest where resuscitation is attempted, and there is a shockable rhythm to around 30%, a decline from 36% in 2015 ^(xii).

Actions

4.1 Include CPR and AED training as part of the school curriculum.

Around 70% of out-of-hospital cardiac arrests happen in the home and 22% in public ^(xi). The likelihood of survival decreases by 10% for every minute delay in restoring normal heart rhythm, usually by early defibrillation. Teaching CPR and AED skills in schools is a simple addition to the curriculum that will save lives. It will increase rates of bystander CPR, improve access to early defibrillation and achieve better outcomes for people suffering out-of-hospital cardiac arrest.

4.2 Address the inequitable access to AEDs in the community.

Addressing the discrepancy between higher rates of cardiac arrest in high deprivation areas, but lower access to AEDs, will improve outcomes ^(xviii). This should include funding equitable access, incentivising community groups to install and learn how to use AEDs, and increased access to basic life-saving training in communities.

5. A more transparent and accountable health system

Goal 5: Set clear accountable goals for heart disease risk management, treatment and outcomes and provide adequate resourcing and incentives to achieve them.

A transparent health system requires clear accountability to those most at risk of heart disease and uses data systematically to measure and improve impact.

Actions

5.1 Track performance for the prevention and management of heart disease using key performance metrics.

Since the previous targets on heart and diabetes screening ended in 2017, there has been no systematic and transparent reporting on heart health care.

While we can measure risks, such as smoking, and outcomes, such as hospitalisations and deaths, there are limited systematic measures of prevention and management of heart disease.

Aotearoa New Zealand needs accessible, quality national data that reports accurate, timely information on the burden of heart disease, monitors and guides efforts, and in particular increases transparency and accountability for closing the heart health equity gap.

Performance metrics should reflect the life course of heart disease and pull together measures which relate to prevention and management of heart disease, timely access to health care, specialist opinion and evidence-based treatment of common heart-related conditions, including hypertension, ischaemic heart disease, heart failure, atrial fibrillation and stroke.

5.2 Resource health, social and community services to achieve heart health goals.

Actions to prevent, identify and manage heart disease risk are extremely cost-effective. Improving the food system, and reducing smoking are some of the most affordable ways to reduce the burden of chronic disease and long-term health system costs. Early diagnosis and treatment of heart disease, especially hypertension and atrial fibrillation are highly cost-effective. Addressing the prevention and sub-optimal management of high blood pressure alone would reduce lifetime cost to the health system by several millions of dollars ^(xix).

To achieve the actions we're proposing, those working at the front line with communities experiencing high rates of heart disease need to be resourced and encouraged to act. This includes providing the tools to assess and manage risk, and incentivising people to use them.

6. Support a world class health workforce to translate research into practice

Goal 6: Aotearoa New Zealand attracts and maintains a world-class health workforce delivering timely and appropriate evidence-based heart health care.

Actions

6.1 Ensure translation of life-saving research into practice.

Aotearoa New Zealand has world-class heart research programmes both domestically and through international collaborations. In particular, there is a growing body of evidence on Māori and Pacific heart health. The research does not always reach the point where it translates into practice. For example, the systematic implementation of Aotearoa New Zealand's own heart disease and stroke risk calculator.

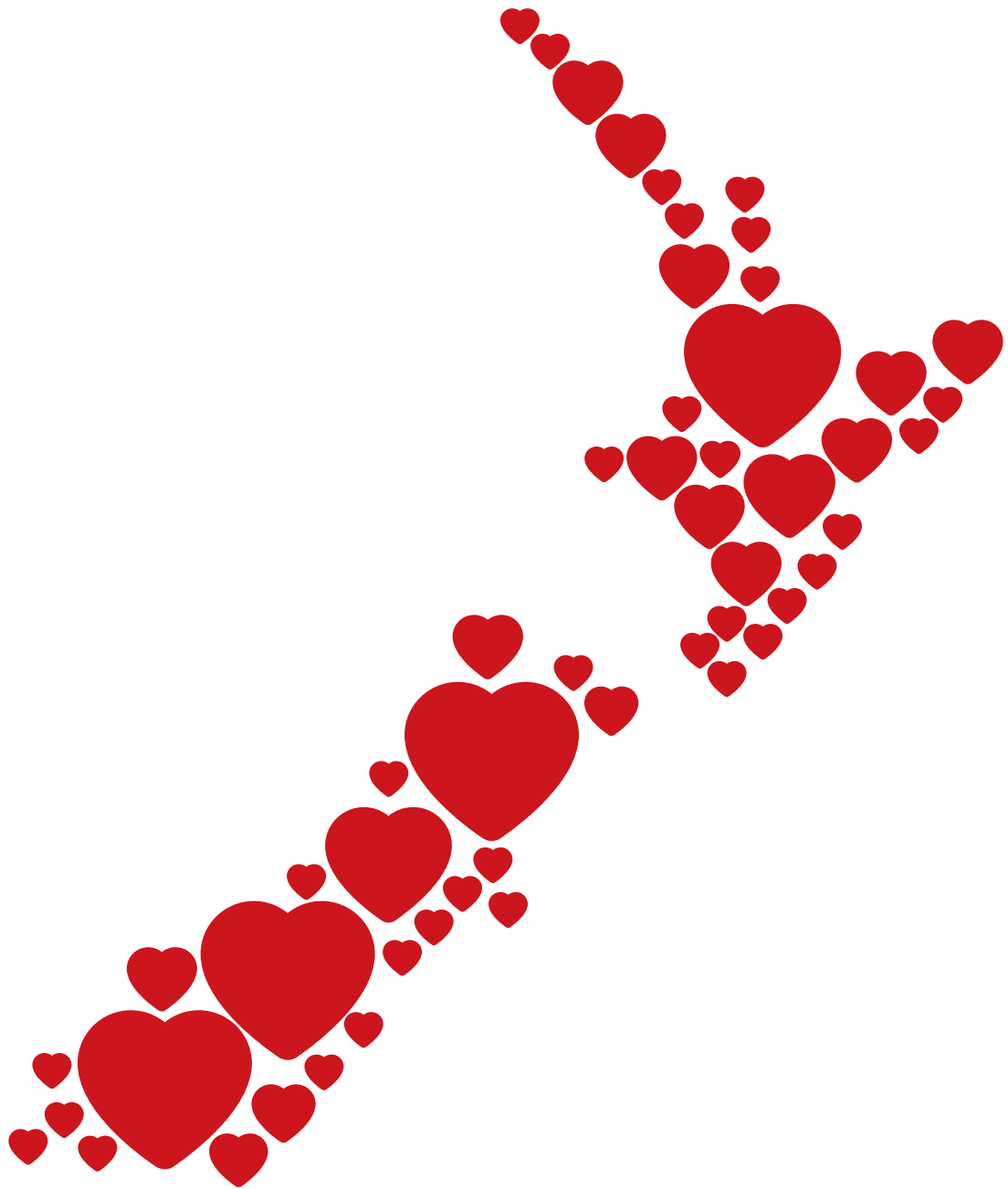
Developing stronger pathways from research to practice and closing the evidence to action gap will ensure that New Zealanders are benefiting from the world-class research.

6.2 Attract and sustain a high-quality health workforce where it is needed.

There are around 160 cardiologists practicing in Aotearoa New Zealand, of whom around 2.5% are Māori and Pacific, and 18% are women. Māori and Pacific nurses are also underrepresented in cardiac specialties ^(xx). More efforts to promote heart health as a career pathway, and to build a sustainable, skilled and diverse workforce that represents the population are urgently required.

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National Office, 9 Kalmia Street, Ellerslie. PO Box 17160, Greenlane, Auckland 1546.
T 09 571 9191 E info@heartfoundation.org.nz W heartfoundation.org.nz

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