



2024-25 Pre-Budget submission

Tackling Australia's biggest killer:
Heart disease

A submission by the
National Heart Foundation of Australia

Contents

| | |
|--------------------------------|----|
| The issue | 3 |
| The budget submission proposal | 4 |
| The impact | 5 |
| Proposal 1 | 6 |
| Proposal 2 | 10 |
| Proposal 3 | 13 |
| Proposal 4 | 16 |
| References | 18 |



The issue

Urgent action from the Australian Government is needed to tackle Australia's biggest killer: heart disease.

With over four million Australians living with a cardiac condition¹, the future health of the nation is at risk without urgent intervention.

Every year:



Cardiovascular disease is the underlying cause of 1 in 4 deaths in Australia²



42,700 people die from cardiovascular disease²



Nearly 570,000 are hospitalised due to cardiovascular disease³



Cardiovascular diseases costs governments across Australia \$12.7 billion⁴



Tackling Australia's biggest killer, a disease that is largely preventable, will save lives and reduce future healthcare expenditure.

The budget submission proposal

The Heart Foundation calls on the Australian Government to prioritise the future heart health of the nation by making the following investments:

- 1 Developing Australia's first targeted cardiovascular disease screening program – **an investment of \$3.3 million over two years**
- 2 Implement a new world-leading approach to preventing, diagnosing and managing cardiovascular disease risk – **\$10 million over three years**
- 3 Develop a new uniform clinical guideline for cholesterol – **\$2 million over three years**
- 4 Increase investment in health programs that will help – **end Rheumatic Heart Disease in Australia**



The impact

Reduce

healthcare expenditure by
\$1.175 billion over five years⁵

Prevent

67,000 heart attacks, strokes
and heart-disease related deaths⁵

Treatment guidelines

Two in five Australians with
high cholesterol will benefit
from up-to-date treatment
guidelines for clinicians



Proposal 1 – Developing Australia’s first targeted cardiovascular disease screening program

See attachment 1 for a full detailed version of our proposal for a targeted CVD screening program.

The Heart Foundation is seeking \$3.3 million in Australian Government investment to develop Australia’s first targeted CVD screening program.

This project will put Australia in a position to roll out a targeted CVD screening program through existing primary care infrastructure. Once fully implemented the targeted screening program could deliver \$1.175 billion of healthcare savings and prevent up to 67,000 heart attacks, strokes and heart-disease related deaths over five years.

Australia needs a targeted screening program for its biggest killer: heart disease.

Australia has a number of screening programs for chronic diseases such as bowel and breast cancer but does not have a screening program for heart disease which is responsible for 1 in 4 deaths.

Despite heart disease being Australia’s leading cause of death, it is largely preventable.

Prevention means identifying those at risk and putting in place interventions such as introducing lifestyle changes and starting patients on medications that can reduce blood pressure and cholesterol.

Current approaches to identifying people at risk of heart disease need to be boosted.

Identifying people at risk of heart disease largely relies on opportunistic screening where people are expected to proactively seek out their cardiovascular risk.

This approach means that millions of Australians who are at risk of a heart attack or stroke are being overlooked.

If nothing changes, Australia can expect to see 1.37 million individuals experience a cardiovascular disease event from 2020-2029, resulting in \$62 billion in healthcare costs and \$79 billion in broader economic costs.⁶



A Heart Foundation pilot program has shown that targeted screening is effective, feasible and affordable.

Evidence shows that targeted screening programs are both effective and feasible in identifying and recalling people at risk from cardiovascular disease and other chronic conditions. This approach contrasts to other more costly whole of population screening programs (such as cancer screening programs) where whole populations are screened for a disease.

The Heart Foundation has already piloted a targeted recall program in over 200 general practices across Australia via a randomised control trial design. This pilot has shown a targeted CVD screening program in primary care boosts Heart Health Check delivery 14-fold and was very well received by general practice teams involved.⁷

Australia is well-placed to introduce a targeted cardiovascular disease screening program.

Australia has made significant progress towards improving the early detection and prevention of heart disease in the past several years. This includes the introduction of the Medicare subsidised Heart Health Check, the recent rollout of the new Australian assessing and managing CVD guideline and associated risk calculator, and recent evolutions in primary care funding models to help strengthen Medicare.

This infrastructure supports our aim to roll out the targeted screening program across Australia.

Proposed project – getting Australia ready for a targeted cardiovascular disease screening program.

The Heart Foundation will design a targeted CVD screening program that is ready to be rolled out through existing primary care infrastructure. Further details on how the project will be implemented can be found at Attachment 1.

A targeted CVD screening program has been chosen as it provides the most cost-effective way to identify people most at risk and most likely to benefit from intervention.

The Heart Foundation proposes three overlapping phases of work to get Australia ready for the introduction of a targeted CVD screening program.

Case study: Targeted screening will save lives – this has been demonstrated in the Heart Foundation’s Recall Program

Grandmother of two, Katrina Wilkes, responded to an SMS inviting her to a local GP’s clinic for a Heart Health Check, as part of the Heart Health Check Recall pilot program.

The proactive 59-year-old has spent her adult life committed to keeping her heart healthy, after she lost her dad to a heart attack when he was 47.

“I have always been physically active, followed a healthy diet, looked after myself and felt well,” Katrina said.

“

**If I had not received that SMS inviting me
in for a Heart Health Check, the situation
could be very different today ”**

After completing the 20-minute Medicare-subsidised Heart Health Check as part of the pilot program, Katrina was shocked when she was told she had high cholesterol and high blood pressure; and both needed to be treated with medication.

“My doctor also referred me to a cardiologist, where I underwent an angiogram and coronary artery calcium scoring, and it was revealed I had calcification of the arteries,” she said.

“I couldn’t believe it. I had done sport all my life, I follow an excellent diet but I had serious and deadly heart issues, which could have led me to suffering a heart attack.”

Katrina believes programs like the Heart Health Check Recall pilot can change lives.

Australia's first targeted CVD screening program

Stakeholder consultation

Extensive stakeholder consultation with consumers, clinicians, primary care peak bodies and relevant government agencies will critically underpin all three phases and will enable co-design of the program



Scope

- Review of evidence, policy and implementation programs.
- Pinpoint heart disease hot spots which may need customised screening strategies.
- Quantify the health and economic impact of a targeted CVD screening program and inform the eligibility criteria and target population.
- Use existing and new digital infrastructure in primary care infrastructure.

Develop

The development phase will involve designing key components of the targeted CVD screening program:

- target population
- invitation strategy, considering region and community needs
- clinical pathway for screening
- viable funding structure and model of care
- data capture and tracking
- program costings and cost-effectiveness models
- governance model for the program
- specific design needs for high priority populations.

Approach to rollout

Mapping out an approach for the rollout of the screening program including:

- leveraging existing primary health care networks
- maximising the scope of practice of primary care professionals
- effectively communicating with consumers about the program.

12 months

24 months

Case study: One Million Hearts in the United States

In 2017, the US Centers for Medicare & Medicaid Services launched the national 'Million Hearts' program to prevent 1 million first-time heart attacks and strokes over 5 years. In this model, primary care providers received financial incentives to identify their at-risk patients, annually assess their CVD risk and manage high risk patients according to guideline recommendations. The program resulted in significantly lower heart attacks and strokes over 5 years among people at high or medium cardiovascular risk⁸.

Proposal 1

Costings

| Project phase | 2024–25 | 2025–26 |
|--|-----------------------|-----------------------|
| Scoping | | |
| Systematic evidence review and heart disease hot spot mapping | \$300,000 | \$150,000 |
| Modelling of health and economic benefits to define target audience and recall approach | \$330,000 | \$200,000 |
| Context analysis and discussion guide generated for consultation | \$90,000 | - |
| Developing | | |
| Stakeholder roundtable(s) | \$150,000 | \$115,000 |
| Design and development work – target population, invitation strategy, clinical assessment pathway, funding models | \$300,000 | \$350,000 |
| Cost effectiveness modelling | \$100,000 | \$150,000 |
| Governance modelling and data linkage | \$180,000 | \$250,000 |
| Approach to rollout | | |
| Priority population community consultation | \$100,000 | \$100,000 |
| Mapping implementation strategy – communication campaigns, mechanism for primary care engagement and continuous quality improvement cycles | \$70,000 | \$250,000 |
| Broad public consultation | \$60,000 | \$55,000 |
| Total (exc GST) | \$1.68 million | \$1.62 million |



2

Proposal 2 – Implement a new world-leading approach to preventing, diagnosing and managing cardiovascular disease risk

The Heart Foundation is seeking \$10 million in Australian Government investment to implement a new world-leading approach to preventing, diagnosing and managing cardiovascular disease risk in primary care.

For the first time in a generation Australia has an opportunity to revolutionise the way in which it approaches cardiovascular disease prevention.

The Heart Foundation welcomed the life-saving investment of \$1 million at the 2023-24 Budget when the Australian Government recognised the importance of implementing the new guidelines and risk calculator in primary practice.

Full impact will be realised over the coming years; however this investment has already delivered:

- Record breaking engagement with the guideline and risk calculator among primary care clinicians, over 4 months we saw:
 - 147,000 unique users and over 560,000 pageviews of the new CVD prevention guidelines
 - Almost 400,000 calculations using the new Aus CVD Risk Calculator
- Almost 19,000 Heart Health Checks delivered in general practice in the month after the launch of the guidelines – representing the highest recorded number of Heart Health Checks delivered since the Medicare item was introduced in 2019.



New clinical prevention guidelines and a new risk calculator – ready for implementation

Working with stakeholders across the health sector and utilising previous Australian Government investment the Heart Foundation has developed clinical prevention guidelines, and an entirely new prediction algorithm (risk calculator) which, for the first time, has been calibrated for an Australian rather than an overseas population.

Using the new guidelines and risk calculator ensures that patients are being treated according to the latest scientific evidence and are being provided the most accurate assessment of their cardiovascular risk.

This new guideline and risk calculator are set to revolutionise how we prevent, diagnose, and manage cardiovascular disease risk – but this will only be achieved if they are implemented and routinely used in primary practice.

So far, there has been record breaking attendance at two clinical webinars for health professionals to upskill them on the new guideline recommendations – over 4,000 health professionals attended live or viewed the webinar recordings.

Proposed project – embedding the new CVD Risk Guideline and CVD Risk calculator in primary care practices across Australia

With investment from the Australian Government, the Heart Foundation will deliver the following to drive widespread adoption and use of the new CVD Risk Guideline and Risk Calculator.

1 Increase understanding of the guideline recommendations among consumers – we will develop tools and resources to increase awareness and understanding of the new guideline recommendations among the Australian public. The first 12 months of implementation after the guideline launch has focused largely on educating health professionals, and now the focus must shift to empowering consumer understanding. We will develop a suite of resources and behavioural interventions to encourage uptake of Heart Health Checks, improve understanding of CVD risk results and support management of risk. Tailored resources will be designed for high priority communities such as Aboriginal and/or Torres Strait Islander peoples, people living in

rural, regional and remote communities, socioeconomically disadvantaged Australians, people living with mental illness and CALD populations.

2 National awareness campaigns – we will ensure clinicians and consumers are widely aware of the new guideline and how the new recommendations should be embedded into their practice. We will run national health awareness campaigns to familiarise clinicians with the key changes in best practice CVD risk assessment and management and direct them towards the new guideline and calculator website. We will develop and rollout newly developed resources and leverage national media coverage to maximise the reach of campaign messages to the relevant audience. We will work with key primary health organisations and peak bodies, including those within the Aboriginal community-controlled sector, to tap into their communications channels and increase the reach of the campaigns. Alongside medical media coverage, we will drive awareness and uptake of Heart Health Checks among the general public via consumer facing campaign strategies.

3 Geotargeted social media campaign – we will increase public awareness about new advances in the early detection and prevention of CVD among high priority regions across the country. Targeting people with the highest coronary artery disease mortality rates and risk factors, we will deliver a consumer-facing social media campaign directly to communities who need it most. The geo-targeting approach will identify and capture high priority communities such as Aboriginal and Torres Strait Islander peoples, people living in rural, regional and remote communities, socioeconomically disadvantaged Australians, people living with mental illness and CALD populations.

4 Health professional education and clinical tools – we will design, develop and deliver high quality clinical education activities and tools to upskill primary care clinicians to better assess and manage cardiovascular risk in accordance with the new guideline. The introduction of the CVD Risk Guideline has created knowledge and skills gaps that we will address through a multifaceted health professional education program. Tools and resources to support implementation of the guideline will help embed the recommendations into clinical practice and streamline preventative activities to reduce burden on primary care staff. This will include a multi-faceted

health professional education program which uses active learning strategies and an updated Heart Health Check Toolkit based on new guideline recommendations. This campaign and these tools will be critical to support the clinical community adopt the guidelines and leverage the full benefit of the work.

- 5 **Embedding the CVD risk calculator into GP software** – we will continue to work closely with the primary practice software industry, the Department of Health and Aged Care and the Australian Digital Health Agency to embed the new CVD risk calculator into primary health care software. This allows primary care staff to easily access the calculator, auto-populate from the patient record and will build the basis for data linkage across primary care. Work has already commenced with the software industry and the CSIRO on scoping this work as part of the initial 12-month implementation project. Embedding the calculator and accompanying decision tools into clinical software will see this work, and the benefit of the risk calculator, realised.
- 6 **Trial innovative recall strategies in primary care** – based on the successful delivery of two national pilots, we will explore new innovative strategies to recall individuals at risk of CVD into their primary health care for a Heart Health Check. AI technologies and real time clinical audit tools will be harnessed to target recall strategies to patients that would benefit most from a Heart Health Check.
- 7 **Embed a risk reduction program for patients into the CVD risk calculator** – we will embed patient decision support tools and a digital support program into the CVD risk calculator to help people understand and manage their risk of developing CVD. A digital support program will be designed and delivered to help high risk individuals manage their risk factors and help prevent future cardiovascular events.
- 8 **Develop a national primary care quality indicator dashboard** – through linked primary care datasets, we will create a first of its kind data dashboard to track the implementation of the new guideline and calculator and drive behaviour change. An integrated CVD dashboard measuring key clinical quality indicators using primary care data from across the country will not only help track implementation of the guideline but will also be utilised across the sector to measure and promote better health outcomes in line with best practice guidelines.

Embedding CVD Risk Guideline in primary care costings

| | 2024–25 | 2025–26 | 2026–27 |
|---|---------------------|---------------------|---------------------|
| 1. Consumer resources, tailoring for high priority populations | \$100,000 | \$100,000 | \$50,000 |
| 2. Consumer resources, tailoring for high priority populations | \$300,000 | \$900,000 | \$700,000 |
| 3. Geotargeted social media campaigns | \$100,000 | \$100,000 | \$100,000 |
| 4. Health professional education and clinical tools | \$1,000,000 | \$400,000 | \$250,000 |
| 5. Embed CVD risk calculator into primary practice software | \$600,000 | \$300,000 | \$200,000 |
| 6. Trial innovative recall strategies in primary care | \$600,000 | \$600,000 | \$300,000 |
| 7. Embed a risk reduction program for patients into the CVD risk calculator | \$400,000 | \$350,000 | \$200,000 |
| 8. National primary care quality indicator dashboard calculator | \$1,000,000 | \$1,150,000 | \$200,000 |
| Total (ex-GST) | \$4.1million | \$3.9million | \$1.9million |

3

Proposal 3 – Update Australia’s out-of-date 2006 Cholesterol Clinical Guideline

The Heart Foundation is seeking an urgent investment of \$1 million from the Australian Government to update Australia’s significantly out-of-date and withdrawn 2006 Cholesterol Clinical Guideline.

With this investment the Heart Foundation will develop and deliver a new national clinical guideline on cholesterol incorporating the latest evidence and cutting edge therapies which have recently emerged in this clinical area. The new guideline will support more effective clinical management for over 7 million Australians who live with uncontrolled high cholesterol.⁹

Australia needs to urgently get cholesterol under control

High cholesterol is a leading risk factor for coronary heart disease, which remains Australia’s number one killer¹⁰. The Australian Institute of Health and Welfare estimates that high cholesterol is responsible for more than a third of all the years of healthy life lost by Australians due to heart disease.¹¹

There is clear evidence that people’s risk of heart disease and related conditions such as stroke increases as their level of ‘bad’ cholesterol increases.¹²

We know how to control cholesterol and prevent heart disease – but we are failing to make an impact

There are a range of proven and effective treatments and interventions that we know can get cholesterol under control. Unfortunately, a high proportion of patients who live with high cholesterol levels are not being managed appropriately, including effective lifestyle and medicines to lower their risk. Among people who attend general practices with cardiovascular disease, almost half are not achieving target cholesterol levels.¹⁰



Out of date cholesterol guidelines are a roadblock to reversing Australia's cholesterol problem

Australia currently does not have an up-to-date clinical guideline to support cholesterol management, despite it being a leading risk factor for CVD.

In a recent sector wide roundtable organised by the Heart Foundation, developing up to date clinical guidelines on cholesterol management was identified as one of the most urgent priorities for getting Australia's cholesterol under control. There have been substantial developments in how cholesterol should be measured and managed, including new game changing medicines that are available on the PBS – and these are not reflected in current guidelines. Clinicians, particularly those working in primary care, are left to navigate these changes without guidance or support.

Clinicians refer to guidelines to ensure that their patients receive the most effective, up-to-date and evidence-based treatments.

The guideline for cholesterol is now so out of date that patients risk missing out on the recent breakthroughs in how cholesterol can be managed.

Proposed project – developing a new Cholesterol Clinical Guideline

Building on the Heart Foundation's 60-year track record in developing and implementing guidelines for the clinical community, we will develop Australia's new cholesterol guidelines. We will use best practice guideline development strategies and standards, including NHMRC standards and GRADE methodology, to develop these much needed cholesterol guidelines.

Guideline development

- 1 Governance and scoping** – we will establish an expert advisory group to oversee clinical and technical input into the project, with representatives across a diverse group of clinical areas: cardiology, lipidology, general practice, nursing, pharmacy, consumers and First Nations health. The expert group will lead the scoping of the guidelines and evidence review.
- 2 Independent clinical evidence review** – we will conduct an independent review of the latest clinical evidence relating to cholesterol measurement and management to inform the guideline development. Formulate practical recommendations – using gold standard GRADE methodology, we will develop practical recommendations for the measurement and management of cholesterol, informed by the latest evidence, clinical consensus and consumer preferences.
- 3 Public consultation** – utilising the Heart Foundation's extensive reach into consumer and clinical communities we will conduct broad public consultation on the new guidelines and ensure they meet end-user needs.
- 4 Develop, design and digitally build new guidelines** – an online interactive version of the guidelines will be developed to streamline uptake by clinicians and enhance clinician decision making on the frontline.

Dissemination and implementation

Effective implementation of the cholesterol guidelines will be critical to realising their public health benefits. We will design and deliver a comprehensive communication, awareness and implementation program to drive uptake of the cholesterol guideline recommendations in clinical practice and support consumer understanding of the changes. This implementation work will be delivered alongside the CVD risk guideline implementation project to simplify engagement with primary care clinicians.

This phase will deliver:

- New clinical tools and resources to aid uptake of the guidelines.
- Health professional educational activities to upskill clinicians on the new recommendations.
- New consumer resources to support better management of cholesterol according to the new guidelines.
- Health professional and consumer awareness campaigns to drive usage of the new guideline.

Costings

| | 2024–25 | 2025–26 | 2026–27 |
|---|-------------------|------------------|------------------|
| Cholesterol guideline development | | | |
| Project planning and administration | \$100,000 | \$100,000 | \$50,000 |
| Scoping and expert group establishment | \$100,000 | | |
| Independent clinical evidence review | \$450,000 | | |
| Formulation of clinical recommendations | \$100,000 | | |
| Public consultation | \$50,000 | | |
| Development and digital build of guidelines | \$200,000 | \$50,000 | |
| Disseminate and implement guidelines | | | |
| Clinical tools and resources | | \$80,000 | \$50,000 |
| Health professional educational activities | | \$70,000 | \$150,000 |
| Consumer resources | | \$100,000 | \$50,000 |
| National awareness campaigns | | \$150,000 | \$150,000 |
| Total (exc GST) | \$1million | \$550,000 | \$450,000 |

4

Proposal 4 – Increase investment in health programs that will help end Rheumatic Heart Disease in Australia

Australia has one of the highest recorded rates of acute rheumatic fever (ARF) and Rheumatic Heart Disease (RDH) in the world, despite both diseases being preventable.

ARF and RHD are considered rare diseases in most parts of the world owing to better living conditions and timely access to effective medical care. However, it remains a problem in Australia:

- In Australia, one person dies of ARF or RHD almost every day.¹³
- In Australia, an incidence rate of ARF is 4.7 per 100,000, significantly more than the incidence rate of other developed countries such as the US (0.5 per 100,00).¹⁴
- There are almost 10,000 people with ARF and RHD on Australian patient registers.¹³
- More women die from ARF and RHD than men. In 2021, women accounted for 60% of ARF and RHD deaths.¹³

First Nations Australians, are disproportionately affected by ARF and RHD. Without action, it is projected 663 people will die by 2031, costing the government \$273 million in healthcare costs.



Despite being eradicated in most developed countries, Aboriginal and Torres Strait Islander communities in Australia continue to be affected by ARF and RHD, and make up the majority of ARF and RHD cases.¹⁵

The mortality rates of ARF and RHD for Indigenous people is 5.2x higher than that for non-Indigenous people.

Nine in ten ARF diagnoses in 2017-2021 were among First Nations Australians, with the highest rate in those aged 5-14.

The incidence rate of ARF is approximately 6 per 100,000 among Aboriginal and Torres Strait Islander people vs 3 per 100,000 for other Australians.

If no further action is taken to tackle RHD, First Nations Australians will continue to be harmed by this disease. It is estimated that by 2031¹⁵:

- 8,667 Aboriginal and Torres Strait Islander people will develop ARF or RDH
- 1,356 people will develop severe RHD (heart failure and/or valvular disease requiring a surgical procedure)
- 663 people will die
- \$273 million will be spent on healthcare

The Australian Government has invested in programs and initiatives to help meet its commitment to end RHD in Australia.

This investment, combined with the leadership of the National Aboriginal Community Controlled Health Organisation in implementing the RHD Endgame Strategy will help to reduce the burden of RHD.

However, the scale of the challenge is significant. The Heart Foundation calls on the Australian Government to:

- make substantial further investments to help the delivery of the RHD Endgame Strategy
- invest in the Heart Foundation and Aboriginal Investment Group proposal to build 70 remote community laundries over the next five years.

Further details on the Heart Foundation and Aboriginal Investment Group proposal can be found in the separate Budget submission: *Remote Community Laundries: A proposal from the Heart Foundation and Aboriginal Investment Group to improve health, social and economic outcomes for Aboriginal and Torres Strait Islander communities and reduce rheumatic heart disease.*

References

1. ABS (2018) National Health Survey. Available at: <https://www.abs.gov.au/statistics/health/health-conditions-andrisks/national-health-survey-first-results/2017-18>
2. AIHW (2023) Heart, stroke and vascular disease: Australian facts. Available at: <https://www.aihw.gov.au/reports/heart-stroke-vascular-diseases/hsvd-facts/contents/about>
3. AIHW (2019) Admitted patients. Available at: <https://www.aihw.gov.au/reports-data/myhospitals/sectors/admitted-patients>
4. Welfare (2022) Disease expenditure in Australia 2019–20, AIHW, Australian Government, accessed 09 October 2023.
5. Heart Foundation (2021) Identifying and Treating People at High Risk of Cardiovascular Events. Available at: https://www.heartfoundation.org.au/getmedia/ab8a766b-4314-4249-97cb-7b238286acc5/210430_Heart-Week-Report_FINAL.pdf
6. Marquina, C., et al. (2022) Future burden of cardiovascular disease in Australia: impact on health and economic outcomes between 2020 and 2029. *Eur J Prev Cardiol*, 29(8):1212-1219.
7. Raffoul, N. et al (2023) Feasibility of a text-mediated recall system to increase cardiovascular disease risk assessment in general practice: Mixed-methods pilot evaluation. *Australian Journal of General Practice*, 52(7). Available at: <https://www1.racgp.org.au/ajgp/2023/july/feasibility-of-a-text-mediated-recall-system-to-in>
8. Blue, L., et al., (2023) Effects of the Million Hearts Model on Myocardial Infarctions, Strokes, and Medicare Spending: A Randomized Clinical Trial. *JAMA*. 330(15): p. 1437-1447.
9. ABS (2022) National Health Survey. Available at: <https://www.abs.gov.au/statistics/health/health-conditions-andrisks/national-health-survey/latest-release>
10. ABS (2021) Causes of Death. Available at: <https://www.abs.gov.au/statistics/health/causes-death/causes-death-australia/latest-release>
11. Australian Institute of Health and Welfare. Australia's health. Snapshot: Biomedical risk factors. 7 July 2022. Canberra: AIHW; 2022. Available at: <https://www.aihw.gov.au/reports/australias-health/biomedical-risk-factors>
12. Ference et al (2017) Low-density lipoproteins cause atherosclerotic cardiovascular disease. 1. Evidence from genetic, epidemiologic, and clinical studies. A consensus statement from the European Atherosclerosis Society Consensus Panel. *European Heart Journal*, 38(2):2459-2472
13. Australian Institute of Health and Welfare (2022) Acute rheumatic fever and rheumatic heart disease in Australia 2016–2020, catalogue number CVD 95, AIHW, Australian Government
14. Tal, R., Hamad Saied, M., Zidani, R. et al. (2022) Rheumatic fever in a developed country –is it still relevant? A retrospective, 25 years follow-up. *PediatrRheumatol* 20, 20. <https://doi.org/10.1186/s12969-022-00678-7>
15. Wyber, R. et al. (2020) The RHD Endgame Strategy: A Snapshot. The blueprint to eliminate rheumatic heart disease in Australia by 2031. Perth: The END RHD Centre of Research Excellence, Telethon Kids Institute.



heartfoundation.org.au

For further information contact:

David Lloyd

CEO, National Heart Foundation of Australia

Level 2, 850 Collins Street, Docklands, VIC 3008

Telephone: 13 11 12 Email: contactus@heartfoundation.org.au

© 2024 National Heart Foundation of Australia, ABN 98 008 419 761 (Heart Foundation)

Terms of use: This material has been developed by the National Heart Foundation of Australia (Heart Foundation) for general information and educational purposes only. It does not constitute medical advice.

Please consult your healthcare provider if you have, or suspect you have, a health problem. The information provided is based on evidence available at the time of publication. Please refer to the Heart Foundation website at www.heartfoundation.org.au for Terms of Use.



The Heart Foundation acknowledges the Traditional Owners and custodians of Country throughout Australia and their continuing connection to land, waters and community. We pay our respect to them and their cultures, and Elders past, present and future.

MC-CORP-055.1.0124