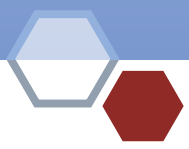
Australian Government
Department of Health

Medical Research Future Fund

Cardiovascular Health Mission

Implementation plan

November 2020



Background

The Cardiovascular Health Mission is investing $220 million over 10 years to improve cardiovascular health and stroke for all Australians under the Medical Research Future Fund (MRFF). The mission will improve health and save lives by mobilising research efforts, and developing collaborative and translational platforms. It will encompass broad innovations in cardiovascular health and stroke to benefit all Australians, with particular efforts to improve equity and outcomes for Aboriginal and/or Torres Strait Islander people.

This plan supports the implementation of the Cardiovascular Health Mission roadmap and establishes a strategic plan to address the mission's goals within the context of the MRFF 10-year plan. This implementation plan should be read in the context of the mission roadmap, which describes the mission's scope, goals and principles.

Overview

To target activities to achieve the objectives of the mission within the 10-year plan, the following aims and priority areas for research investment have been identified.

Aim	Priority areas for investment
1. Reduce the number of Australians of all ages affected by heart disease and stroke	**1.1** Improving understanding of cardiovascular disease risk, including biological mechanisms
	1.2 Identifying best-practice preventive care for all Australians
2. Improve outcomes from acute cardiovascular and stroke events	**2.1** Optimising evidence-based diagnoses and clinical pathways
	2.2 Discovering new solutions through innovation — technology, drugs and devices, and models of care
3. Improve long-term recovery and survivorship after a cardiovascular or stroke event	**3.1** Identifying and targeting personalised secondary prevention programs, to prevent further stroke and heart events
	3.2 Developing new treatments for recovery with better understanding of the biology of recovery, leading to improved monitoring and new treatments
	3.3 Improving survivorship and reducing morbidity

Implementation strategy

The implementation strategy has been developed to guide research investment over the life of the mission. Investment aims to build capability and knowledge, as well as facilitate translation of advancements to clinical practice, to achieve the mission's objectives. Support for exploratory and discovery projects in both the short and long term will be integral to the mission's success. The implementation strategy is intended to make the research purpose and direction transparent, and provide certainty to stakeholders. It also establishes how the outcomes of each focus area will be evaluated in terms of benefit to Australian patients, which will help to clarify the intended outcome and facilitating tracking of the mission's progress towards its objectives.

Important considerations that will factor into the mission's implementation include:

- prioritising equity considerations for all mission projects, including gender and social equity
- developing best-practice methods for co-design and conduct, in partnership with end users
- ensuring consumer and end-user involvement across all mission activities
- including Aboriginal and/or Torres Strait Islander people to co-design and lead research activities
- ensuring implementation of best practice is embedded across all mission activities

Priority areas for investment are allocated across short, medium and long-term timeframes.

Cardiovascular Health Mission enablers

For each aim and priority area for investment, the implementation plan identifies non-research activities required to facilitate and support the MRFF-funded research and long-term implementation.

The following enablers will provide overarching support for the Cardiovascular Health Mission's implementation:

- A nationally coordinated approach that leverages core research capabilities to support all funded projects to
  - drive activity and outcomes, including embedding these outcomes into the health system
  - coordinate aligned projects
  - develop, curate and manage a dataset for future research use
- Effective and extensive engagement across all levels of government will be established to ensure the outcomes of the mission transform health care
- Effectively use and link allied groups — including foundations, alliances and networks — to coordinate efforts and avoid duplication, to improve the mission's impact

The mission enabling capabilities can also deliver:

- workforce development in areas such as large-scale bioinformatics, data analysis, data management and interpretation
- improved integration of data and research into continuous quality improvement
- improved integration with health system priorities, including health care quality standards, patient outcomes, economics, and financial factors and obligations
- industry engagement, to
  - accelerate the delivery of evidence-based and value-based health care
  - translate innovation into more effective treatments and patient management support tools, to support better patient, commercial and economic outcomes
- implementation research and health service engagement to realise the health benefits from innovation

A significant enabler for the Cardiovascular Health Mission is the Targeted Translation Research Accelerator, a $47 million program over four years that focuses on accelerating research into preventing, diagnosing and treating diabetes and cardiovascular disease. The accelerator will:

- establish two research centres through competitive processes — one for diabetes and one for cardiovascular disease — to accelerate therapies for the prevention, early detection and treatment of disease-related complications
- support through competitive processes research projects on the potential common pathways interactions and complexities for patients experiencing two or more of the following: type 1 diabetes, type 2 diabetes and cardiovascular disease
- target investment and related support through partnership projects to progress promising drug and device development projects, with a focus on promoting commercialisation of novel therapeutics and devices for diabetes and cardiovascular disease
- source, nurture and invest in early-stage therapeutic research targets to transform diagnostic and therapeutic care for people with diabetes
- commission and conduct research to support the health and commercial sectors to deliver transformations in diabetes and cardiovascular disease

The Cardiovascular Health Mission will also actively pursue opportunities of collaboration with other MRFF initiatives and missions.

AIM 1

Reduce the number of Australians of all ages affected by heart disease and stroke

Priority area 1.1

Improving understanding of cardiovascular disease risk, including biological mechanisms

Research to begin in the ...	Priorities for investment (research questions and objectives)
short term 1–2 years	Four research projects commenced in June 2020: • Novel deep learning methods for large-scale cardiovascular risk screening using Australian digital health data (University of NSW, $1.4 million) • Using Polygenic Risk Scores to Target Statin Therapy in Primary Prevention (Monash University, $1.4 million) • Address gaps in cardiovascular risk assessment (Heart Foundation, $2 million, co-funded) • Identify non-genomic factors associated with congenital heart disease (University of Adelaide, $3 million) Future research projects will: • develop novel blood, imaging and clinical markers and methods for improved risk prediction and early detection of cardiovascular disease and stroke • identify and quantify system and individual mechanisms that contribute to variation and inequities in cardiovascular disease and stroke care, and risk • use implementation- and systems-based research (built on principles of co-design methodology) to better understand and predict cardiovascular disease and stroke risk in Aboriginal and/or Torres Strait Islander people

medium term
2–5 years
to
long term
6–10 years

Research projects will:

- identify and evaluate novel diagnostic markers and methods to better predict risk of cardiovascular disease and stroke
- develop and evaluate clinical pathways for implementing optimised evidence-based diagnosis and treatment
- support integration of individual and population approaches to optimise cardiovascular disease and stroke prevention

Opportunities to use additional investment and other research to support the priority areas

- Partnerships may include:
  - existing large-scale national and state data linkage systems (eg National Integrated Health Services Information, Multi-Agency Data Integration Project), and primary care data linkage systems to develop large-scale cardiovascular data platform integrating clinical, state, national and other data sources
  - commercial clinical software providers to develop partnerships that support creating data aggregation platforms that the research sector can access
  - private health insurers — for example, with the shared goal of value-based care and prevention
  - the National Critical Research Infrastructure Strategy
  - the Australian Health Research Alliance and the Australian Clinical Trials Alliance
  - the Heart Foundation and the Stroke Foundation to enable consumer engagement and advocacy relating to data security and big-data value
- Use existing clinical registries and cohorts with biobanks to create national online open access resource. For example, there are data from 47,000 patients in individual cohorts from the Australian Cardiovascular Alliance Precision Medicine Flagship, and the Australian STROKE registry has data from more than 100,000 stroke patients

- Collaborative research with other MRFF missions including:
  - Genomics Health Futures Mission — polygenic risk, and opportunities for co-funded grants
  - Million Minds Mental Health Research Mission — co-funding towards preventive strategies in patients with mental illness
  - Indigenous Health Research Fund — support research to improve outcomes for Aboriginal and/or Torres Strait Islander people
- Consultation and engagement on clinical guideline, and pathway implementation and infrastructure (eg the Cardiac Society of Australia and New Zealand, the Heart Foundation, the Stroke Foundation, the Royal Australian College of General Practitioners)
- Leverage funding by incentivising sustainable partnerships with commercial diagnostic companies, and international collaborations with world-class facilities in precision cardiovascular health (eg Broad Institute, UK Biobank)

Activities required to support the research and facilitate long-term implementation

- Create large-scale platforms, and integrate data linkage, national biobanks, imaging and online bioresources
- Broad engagement of research, health and industry experts towards goals, to progress grants and present platforms
- Clinical trials network contributing to large-scale national cohort studies (work with the Australian Health Research Alliance and the Australian Clinical Trials Alliance)
- Advocate to consumers regarding data security, and benefits of large-scale data research
- Undertake economic evaluations and impact assessments of new pathways and innovations in prevention

Priority area 1.2
Identifying best-practice preventive care for all Australians

Research to begin in the ...	Priorities for investment (research questions and objectives)
short term 1–2 years	Two research projects commenced in June 2020: • An Australian study of the outcomes and burden of congenital heart disease (University of Sydney, $4 million) • Trialling a novel method for reducing blood pressure among individuals with hypertension (University of NSW, $1.6 million) Research to support effective adoption of preventive health interventions for cardiovascular disease and stroke, including to: • identify the key barriers and enablers for adopting best-practice care across the care continuum • identify effective community-based approaches • address barriers to best-practice prevention for Aboriginal and/or Torres Strait Islander people, using co-design and culturally secure approaches Develop novel interventions, including therapeutics and devices, to prevent cardiovascular disease and stroke, including identifying novel interventions that target individuals who experience rapid progression of disease despite best-practice care

AIM 1

medium term
2–5 years
to
long term
6–10 years

Reduce the number of Australians experiencing cardiovascular disease and stroke by developing and implementing early, more effective preventive health interventions, including:

- developing, optimising and implementing clinical pathways that embed evidence-based treatment
- co-designing and developing strategies with Aboriginal and/or Torres Strait Islander people to embed best-practice, culturally secure cardiovascular disease and stroke prevention for Aboriginal and/or Torres Strait Islander people into care
- trialling
  - novel interventions (individual and population level), including care pathways, integrated/multimodal solutions and biomarkers
  - repurposed treatments and therapeutics, or new integrated models of care
- developing and implementing novel
  - discoveries and markers to improve risk prediction
  - approaches to tailor preventive care, support adherence and reduce inequalities
  - technologies

Opportunities to use additional investment and other research to support the priority areas

- Partnerships with
  - commercial clinical software providers, to support creating data aggregation platforms that the research sector can access
  - industry, universities and other organisations with incentives for large-scale clinical trials, as well as early-phase drugs (eg through Australian Cardiovascular Alliance Industry members)
  - the Department of Industry, Science, Energy and Resources, VicHealth, and with state departments
  - the Digital Cooperative Research Centre and industry partners regarding new technology for personalised prevention
  - private health insurers; for example, with the shared goal of value-based care and prevention
  - the Royal Australian College of General Practitioners, primary care nurses and allied health, including pharmacists and exercise physiologists
  - the Heart Foundation, the Stroke Foundation, and other nongovernment organisations
- National data platform integrating routinely collected large-scale national and state data linkage systems (eg National Integrated Health Services Information, Multi-Agency Data Integration Project), primary care data-linkage systems, hospital-based clinical quality registries and electronic health care records
- Use advances in data to drive existing and novel clinical quality improvement processes
- Clinical cardiovascular disease and stroke registries (innovative design with virtual population of data, and dashboard quality assurance and opportunity for clinical decision support)
- Coordinated broad cardiovascular research community (eg Australian Cardiovascular Alliance, centres of research excellence)
- Embed research outputs into health service initiatives using evidence-based knowledge translation methods to improve implementation, sustainability and health outcomes
- National and state health departments, to advise on evidence- and value-based care to accelerate implementation and impact

Activities required to support the research and facilitate long-term implementation

- Establish and consolidate partnerships with health services providers, consumers and policy makers for translation and implementation
- Embedding clinical trials teams in the Australian Health Research Alliance and primary care network, with efficient innovative systems (eg in virtual registries)
- Collaborate with the Indigenous Health Research Fund and experts on initiatives that increase engagement with the community and researchers, and drive towards equitable access and outcomes
- Workforce development in clinical and large-scale data analysis, management and interpretation
- Engage with industry, health and consumer partners to promote Australian intellectual property and build commercialisation capacity
- Software development facilitating clinical implementation, including a national database of cardiovascular disease and stroke intellectual property (similar to the Stanford Office of Technology and Licensing; techfinder.stanford.edu)
- Health economic and impact assessments

Evaluation approach and measures

- New discoveries and biomarkers that improve prediction of cardiovascular disease and stroke are identified and available in clinical practice nationally
- New clinical pathways with optimised treatments are identified and available in clinical practice nationally
- A greater proportion of the eligible population having their cardiovascular and stroke risk assessed
- A greater proportion of those at risk of cardiovascular disease and stroke receiving best-practice preventive care
- Preventive approaches focused on individuals and communities available and implemented nationally
- Inequalities in cardiovascular disease and stroke outcomes reduced for at risk populations, particularly Aboriginal and/or Torres Strait Islander people
- Efforts to understand the potential return on investment and the health economic implications of the research

AIM 2

Improve outcomes from acute cardiovascular and stroke events

Priority area 2.1

Optimising evidence-based diagnoses and clinical pathways

Research to begin in the ...	Priorities for investment (research questions and objectives)
short term 1–2 years	Three research projects commenced in June 2020: • Improving survival outcomes after paediatric stroke (Stroke Foundation, $4 million) • Improving outcomes for women at risk or living with heart disease (Heart Foundation $2 million, co-funded) • Addressing cardiovascular morbidity and mortality in cancer survivors (Heart Foundation, $2 million, co-funded) Research that accelerates patient access to the most appropriate care, including reducing care inequalities through: • novel technologies or devices to enhance and accelerate diagnosis, including outside of acute health settings • identifying new biomarkers to support prognosis and treatment pathways • improved identification and management of Aboriginal and/or Torres Strait Islander people with critical, time-dependent events • addressing inequalities in outcomes • novel approaches to better understand and quantify access to care, including drivers of inequalities to support targeted interventions

AIM 2

medium term
2–5 years
to
long term
6–10 years

Research to support adoption of novel and effective interventions and treatments, including:

- developing, optimising and implementing clinical pathways that embed evidence-based treatment
- co-designing and developing strategies with Aboriginal and/or Torres Strait Islander people to embed best-practice, culturally secure cardiovascular disease and stroke prevention for Aboriginal and/or Torres Strait Islander people into care
- trialling novel diagnostic and prognostic tools
- trialling novel interventions, including technologies, digital health, and individual and population-based approaches

Research to foster uptake of best-practice care, including to:

- improve translating new evidence into practice
- improve uptake of evidence generated from the program into acute care guidelines or policy

Opportunities to use additional investment and other research to support the priority areas

- Engagement with organisations involved in the adoption of novel and effective interventions and treatments, including:
  - Australian Cardiovascular Alliance, the research community and flagship programs (precision medicine, bioengineering, big data, clinical trials, and implementation and policy), as well as industry and health partners
  - Bioplatforms Australia, national imaging facilities and other National Collaborative Research Infrastructure Strategy organisations
  - state health and ambulance services
  - sporting and lifesaving organisations
  - professional bodies, including the Cardiac Society of Australia and New Zealand, the Royal Australasian College of Physicians, the Royal Australian College of General Practitioners, the Australian and New Zealand Association of Neurologists
  - industry partners
  - Australian Health Research Alliance and the Royal Australian College of General Practitioners, to embed innovations in health care
  - the Heart Foundation and the Stroke Foundation — where feasible, matched funding, promoting implementation and evaluation

AIM 2

Activities required to support the research and facilitate long-term implementation

- Encourage states and territories to implement dashboard of performance (best care and best outcomes)
- Consumer and end user education and engagement regarding priorities informed by data
- Whole-of-nation big data platforms for near real-time registries and to facilitate embedded clinical trials
- Embed clinical trial networks in Australian Health Research Translation Centre networks as a platform to attract global pharmaceutical and device/technology partnerships, and accelerate Australian discovery and innovation
- Encourage engagement with the broad research community
- Early and ongoing engagement with relevant state departments of health, and with national bodies, including the Medical Services Advisory Committee and the Pharmaceutical Benefits Advisory Committee to support development and implementation of new technologies and devices
- Engage clinical researchers to undertake research or contribute to research, with career development and mentorship

Priority area 2.2

Discovering new solutions through innovation — technology, drugs and devices, and models of care

Research to begin in the ...	Priorities for investment (research questions and objectives)
short term 1–2 years	Two research projects commenced in June 2020: • A randomised controlled trial of ultra-early, minimally invasive surgery for intracerebral haemorrhage (University of Melbourne, $2.1 million) • Gene expression to predict long-term outcome in infants after heart surgery (University of Queensland, $3 million) Develop novel treatments and devices to improve outcomes (eg reduce complications, length of stay) following acute cardiovascular and stroke events, including: • identifying novel molecular targets • repurposing existing drug therapies and/or developing new combinations of drugs • developing novel devices, technologies and systems • identifying specific solutions for individuals who experience rapid progression in disease despite receiving the best evidence-based care

AIM 2

medium term
2–5 years
to
long term
6–10 years

Research to support adoption of novel and effective interventions and treatments, including:

- developing, optimising and implementing models of care that embed evidence-based treatment
- trialling novel devices, technologies and systems of care
- trialling novel and repurposed therapeutics and treatments
- addressing inequalities in access and outcomes

Preclinical development and validation of novel molecular targets and novel device approaches.

Phase 1 and Phase 2 clinical trials to demonstrate safety and potential efficacy of novel devices and therapeutic approaches.

Opportunities to use additional investment and other research to support the priority areas

- Engage with industry partners to repurpose existing products for diseases or subgroups with an identified gap in treatment options
- Attract global pharmaceutical and device companies to Australia for clinical trials across phases 1–3
- Collaboration with local biotechnology/medical technology companies to accelerate development and validation of their technologies
- Engage the Australian Cardiovascular Alliance platform for interdisciplinary research in drug discovery, bioengineering, clinical trials, implementation and policy, as well as industry and commercialisation
- The Australian Clinical Trials Alliance, the Cardiac Society of Australia and New Zealand, the Stroke Society of Australasia, the Heart Foundation, the Stroke Foundation for clinical expertise about pathway and guideline development

Activities required to support the research and facilitate long-term implementation

- Coordination of multidisciplinary research and clinical teams
- Access to infrastructure — for example, through the National Collaborative Research Infrastructure Strategy
- Phase 1 device network, with preclinical arm (bringing in global investment and providing a platform for local innovation)
- Clinical trials network across the Australian Health Research Alliance, supported by the Australian Clinical Trials Alliance
- Data platforms to measure impact and continually assess gaps
- Early and ongoing engagement with state departments to support uptake of evidence and value-based priorities for implementation
- Undertake impact assessments, while considering health, economic and social value measures
- Investment in biotechnology, including incentivising global industry investment in Australia

Evaluation approach and measures

- New discoveries and biomarkers that improve diagnosis and prognostication of cardiovascular disease and stroke are identified and available in clinical practice nationally
- New clinical pathways with optimised treatments are identified and available in clinical practice nationally
- Novel interventions, treatments and devices are developed and available in clinical practice nationally
- A greater proportion of those experiencing cardiovascular disease and stroke receiving best practice acute care
- Improved access to the most appropriate care, including reducing care inequalities in cardiovascular disease and stroke outcomes for at-risk populations, particularly Aboriginal and/or Torres Strait Islander people

AIM 3

Improve long-term recovery and survivorship after a cardiovascular or stroke event

Priority area 3.1

Identifying and targeting personalised secondary prevention programs, to prevent further stroke and heart events

Research to begin in the ...	Priorities for investment (research questions and objectives)
short term 1–2 years	Five research projects commenced in June 2020: • A randomised controlled trial of a comprehensive smartphone application-centric model of care to improve outcomes in stroke patients (University of NSW, $1.6 million) • A multidisciplinary project will produce actionable intelligence to help health services implement efficient models of care that empower children who receive open heart surgery (Queensland University of Technology, $3 million) • Personalised pulmonary valved conduits: reducing re-operations in congenital heart disease (University of Sydney, $2 million) • Congenital heart fitness intervention trial (University of Sydney, $3 million) • Colchicine After Stroke to Prevent Event Recurrence (CASPER) study (University of Sydney, $2.9 million) In the short to medium term, small-scale development projects will establish feasible, evidence-based approaches for: • new models (eg digital/bioengineering) that can increase treatment adherence and engagement for all heart and stroke survivors undergoing current best-evidence treatments (drugs, lifestyle) • new, more effective approaches specifically for Aboriginal and/or Torres Strait Islander people, including co-design and culturally secure approaches • approaches that incorporate health system monitoring, consumer feedback and policy change to increase participation and improve health outcomes

AIM 3

medium term
2–5 years
to
long term
6–10 years

Large-scale project focused on discovery and testing of new, broadly applicable (multiple disease groups) interventions (eg anti-inflammatory targets)

Research projects or next-phase studies, which may include:

- promising models that improve adherence to best-practice care
- new, more effective approaches specifically for Aboriginal and/or Torres Strait Islander people, including co-design and culturally secure approaches
- approaches that incorporate health system monitoring, consumer feedback and policy change to increase participation and improve health outcomes

Research to support adoption of evidence-based approaches:

- for adherence/engagement for all heart and stroke survivors undergoing current best-evidence treatments (drugs, lifestyle), such as digital, bioengineering approaches
- for Aboriginal and/or Torres Strait Islander people including co-design and culturally secure approaches
- that incorporate health system monitoring, consumer feedback and policy change to increase participation and improve health outcomes

AIM 3

Opportunities to use additional investment and other research to support the priority areas

- Engagement with venture capitalists, national and state governments, commercial partners, consumers, community organisations, philanthropic organisations, universities, professional bodies and international partners to provide opportunities for Australia to lead the world in developing new treatment pipelines for drugs, biodevices, digital health technology, creating industry–academic partnerships and investment
- Registry-based clinical trials and consumer-relationship management platforms to quickly and effectively communicate with potential users of new and existing products and services
- Engage the Australian Cardiovascular Alliance research community (includes more than 1000 broader research, industry and health communities)

Activities required to support the research and facilitate long-term implementation

- Development of a mechanism for overseeing or identifying linkages between and across bodies of funded work in the mission(s), enabling outcomes to be optimised
- Establish linkages with resources/entities to help build business cases for commercialisation to maximise co-investment opportunities
- Engage with state departments to encourage collaborative approaches and agree to policy/data initiatives that are generated from this work

Priority area 3.2

Developing new treatments for recovery with better understanding of the biology of recovery, leading to improved monitoring and new treatments

Research to begin in the ...	Priorities for investment (research questions and objectives)
short term 1–2 years	In the short term, small-scale development projects will establish feasible, evidence-based approaches for: • the discovery and validation of new molecular targets and new device approaches for treatment, and to improve recovery • new therapeutics, including drugs and devices that improve the function of the heart and brain, including target validation to improve functional recovery and survivorship • health informatics approaches that use artificial intelligence and machine learning to help patient selection for trials, optimise targeting of treatments and patient outcomes

AIM 3

medium term
2–5 years
to
long term
6–10 years

Research to discover and develop new therapeutic and device strategies to improve heart and brain function for better recovery, which may include:

- early and later phase trialling of novel therapeutics, devices and technologies
- new biomarkers or more effective diagnostics
- trialling repurposed drugs or combinations thereof

Research to understand recovery trajectories and phenotypes, which may include:

- trial network or big data system enhancements that accelerate patient selection, and recruiting and testing novel treatments
- developing and testing novel outcome assessment tools or biomarkers of recovery

A large-scale multiomics project focused on improving understanding of recovery trajectories and phenotypes, underpinning recovery and survivorship in cardiovascular disease and stroke.

Research to embed systems for tracking long-term recovery (with novel biomarkers, outcome assessment) in cardiovascular disease and stroke.

AIM 3

Opportunities to use additional investment and other research to support the priority areas

- Consumer engagement, community organisations, universities, incubator and seed funds, biotechnology and medical technology companies, pharmaceutical companies and international partners
- Coordinated efforts for productive use of funds to develop systems that work across multiple conditions
- Partnerships with:
  - digital innovation companies about the best approach for data format and interrogation, and collaboration; and intellectual property generation for small and medium enterprises, pharmaceutical and device industries, and local technology industries
  - Australian Cardiovascular Alliance for research community engagement (more than 1000 researchers, industry and health care providers, beyond the grant teams), working towards prioritised goals
  - pharmaceutical and device companies to attract international Phase 1 to Phase 3 studies, and build an ecosystem for industry–academic partnership across the pipeline
- Engagement with venture capitalists, national and state governments, commercial partners, consumers, community organisations, philanthropic organisations, universities, professional bodies and international partners to provide opportunities for Australia to lead the world in developing new treatment pipelines for drugs, biodevices and digital health technology, creating industry–academic partnerships and investment
- The Australian Government's 2030 Innovation Plan aims for Australia to be a leading nation in artificial intelligence and machine learning

AIM 3

Activities required to support the research and facilitate long-term implementation

- Facilitate collaboration among those who are working in the same area to encourage linkages between groups
- Engage with leading national cardiovascular (heart and stroke) research alliances to accelerate this work
- Partnership opportunities with pharmaceutical companies in trial networks
- Identify pharmaceutical requirements for the most effective partnerships, so that value within Australia is maximised while taking advantage of global pharmaceutical company resources and networks
- Coordination and collaboration between proposed systems to stream patients into trials
- Broad partnerships and networks of people with data and analytics expertise
- Liaise closely with Australian industry and commercialisation partners
- Encourage feeding information from clinical trial learnings into big data platforms to enhance development of precision medicine for heart and stroke

Priority area 3.3
Improving survivorship and reducing morbidity

Research to begin in the ...	Priorities for investment (research questions and objectives)
short term 1–2 years	One research project commenced in June 2020: • Addressing gaps in secondary prevention and cardiac rehabilitation (Heart Foundation $2 million, co-funded) In the short term, small-scale development projects will establish feasible, evidence-based approaches for: • new models of rehabilitation and recovery support that increase survival and quality of life • initiatives that increase equity of access for all people (eg digital or online delivery of services like tele-rehab for heart and stroke) • new, efficient models that respond to survivor needs, and that deliver routine, annual checking and monitoring of people with heart and stroke problems to improve outcome and survivorship • new, innovative models that improve treatment adherence by empowering survivors to more effectively manage their recovery, through co-design with survivors • new, culturally secure models to improve treatment adherence by empowering Aboriginal and/or Torres Strait Islander people, through co-design

AIM 3

medium term
2–5 years
to
long term
6–10 years

A large-scale project that builds on the development projects that are focused on:

- new models of rehabilitation and recovery support that increase equity of access for all people (eg digital or online delivery of services like tele-rehab for heart and stroke)
- new, efficient models that respond to survivor needs, and that deliver routine, annual checking and monitoring of people with heart and stroke problems to improve outcome and survivorship
- new, innovative models that improve treatment adherence by empowering survivors to more effectively manage their recovery, through co-design with survivors
- new, culturally secure models to improve treatment adherence by empowering Aboriginal and/or Torres Strait Islander people, through co-design

Research to support effective national adoption and best-practice use of rehabilitation and recovery programs.

Opportunities to use additional investment and other research to support the priority areas

- Partnerships with:
  - data mining and artificial intelligence companies
  - industry (eg data analytics)
- Engagement with consumer, community organisations, universities, international partners and businesses (eg gyms, information technology companies)
- Venture capital funding
- Collaborations with national and state governments, and consumer organisations
- Leveraging:
  - existing support systems and programs for maximum effect
  - policies, practices, standards and systems from existing well-established, national databanks

Activities required to support the research and facilitate long-term implementation

- Facilitate collaboration among those who are working in the same area to encourage linkages between groups
- A national cardiovascular (heart and stroke) disease platform would significantly accelerate this work
- Encourage applicants to identify training opportunities for early career researchers within the project
- Identify funding strategies that support career development and sustainability
- Consider and implement data security

Evaluation approach and measures

- New treatments and interventions that improve outcomes following cardiovascular disease and stroke are identified and available in clinical practice nationally
- A greater proportion of people have access to effective rehabilitation following cardiovascular disease and stroke
- Inequality in access to rehabilitation for at-risk groups reduced, particularly for Aboriginal and/or Torres Strait Islander people