

Action to beat stroke

- › **In partnership with the Australian Government, Stroke Foundation proposes to implement key initiatives highlighted in the National Strategic Action Plan for Heart and Stroke (the Action Plan). Actions will strengthen our health system and help Australians improve their health.**
- › Every nine minutes there is a stroke in Australia.¹ It is one of our nation's biggest killers and the leading cause of acquired disability in adults.²
- › It can strike anyone, of any age, attacking the brain and changing lives in an instant.
- › Yet, most strokes can be prevented or treated.³
- › The Australian Government recognised the avoidable burden of this disease, commissioning the Action Plan in 2018.
- › We know the priorities and immediately achievable actions, that if implemented, will reduce stroke's burden on individuals, families, the community and the healthcare system.
- › The Action Plan, the National Preventative Health Strategy, and Australia's Long Term National Health Plan, have established strong foundations to address stroke and chronic disease more broadly.
- › Now is time to deliver. Together we can prevent, treat and beat stroke. We can build the world's best health system.

Proposal 1

Exposing a killer of working-age Australians – raising awareness of Atrial Fibrillation (AF) to detect and better manage Australians at risk of stroke and heart disease (Actions 1.1.4, 1.1.5, and 1.3.1) .

Investment: \$500,000 per annum over four years (an additional \$250,000 per annum in funding will be sourced from an industry partner).

The opportunity

Up to 18,000 strokes experienced by Australians this year will have no identified cause.⁴⁻¹⁰ These types of strokes are referred to as Cryptogenic. Working-age Australians are Cryptogenic stroke's most common victim.

Cryptogenic strokes are not well understood by health professionals, including neurologists and cardiologists. This is leaving survivors and their loved ones living in fear of another stroke, with a lack control over their health and looking for answers.

Many of these strokes are the result of undiagnosed AF.

AF is the most common heart arrhythmia.¹¹ Its incidence increases with age¹², and it is associated with significant morbidity and mortality.^{13, 14} People with AF are up to five times more likely to experience a stroke.^{15, 16}

AF can be managed.

The challenge with AF is most people don't know what it is, the killer it can be, and it is hard to diagnose.

Lucas's story

Lucas Richardson is one of thousands of working-age Australians living with the impact of stroke.

In 2011, at the age of 26 the young electrician was struck down by a stroke. It came without warning and almost claimed his life.

Lucas spent three years living in supported accommodation for rehabilitation following his stroke. Today, he is living with speech difficulties and limited use of his right arm. Lucas is now the duty manager at the electrical business.



Lucas has made great progress, but one very important question remains for him and his family. What caused his stroke?

The solution

In line with the priorities of the Action Plan, **Stroke Foundation will partner with the Heart Foundation to expose this killer through a targeted national AF and cryptogenic stroke awareness campaign.**

Targeting neurologists, cardiologists, stroke coordinators, and GPs, as well as cryptogenic stroke patients, their families and carers, the campaign will:

- › Increase awareness of cryptogenic stroke as a national public health issue, including potential causes and underlying risk factors, with a key focus on AF.
- › Help better identify, and educate the community about, AF.
- › Improve health professional knowledge of best-practice diagnostic and treatment pathways for cryptogenic stroke and AF.
- › Strengthen coordination between the neurology and cardiology clinical specialities to ensure patients can access best-practice diagnostic and treatment pathways for cryptogenic stroke and AF .
- › Enable the Australian medical community and individuals and families to better understand how to manage their health and reduce recurrent stroke through compliance, and risk and behaviour management.

This national education campaign will better support health professionals and empower stroke survivors to take charge of their own health. It will reduce recurrent stroke and avoidable hospital admissions, enabling survivors to get back to work and back to life.

Outputs

The campaign will reach health professionals through:

- › Partnerships with professional societies and colleges in the clinical areas of neurology, cardiology and general practice, to develop targeted educational resources, including webinars and CPD-accredited online learning modules.
- › Delivery of online targeted educational resources, including webinars and online learning modules on InformMe, Stroke Foundation's dedicated online resource for health professionals working in stroke care, which has more than 11,000 registered users.
- › Strengthening neurology and cardiology coordination by reinforcing the treatment pathway.
- › Delivery of workshops at key national conferences focused on evidence-based practice for diagnosing and treating cryptogenic stroke and AF.
- › Publication of articles and editorials in key publications in the Australian medical press, and in relevant medical journals.

The campaign will reach working-age stroke survivors and their loved ones through:

- › Delivery of online targeted educational resources, including videos, podcasts and fact sheets on EnableMe, Stroke Foundation's dedicated online resource co-designed with stroke survivors, their families and carers, which has more than 7,000 registered users.
- › Delivery of resources and training to capitalise on Stroke Foundation's established StrokeSafe and F.A.S.T. community education program. There are currently 150 speakers delivering community education across Australia.
- › Development of targeted educational content for Stroke Foundation and Heart Foundation social media platforms.
- › Targeted print, online, radio, and television media stories, highlighting case studies of cryptogenic stroke survivors and community members living with AF. This will include leveraging existing annual campaigns, including World Stroke Day, National Stroke Week, National Heart week, AF Awareness Week, and Men's and Women's Health weeks, where appropriate.

Evaluation

An evaluation plan will be developed to produce a report on the outcomes at the end of the project, with monitoring throughout for continuous improvement. Precise measures will be devised at the commencement of the project, and could include:

- › Health professionals who engaged in, and successfully completed, online targeted educational activities such as webinars and online learning modules.
- › Qualitative and quantitative participant feedback on the quality and utility of online targeted educational activities.
- › Educational workshops delivered at key national conferences, number of participants reached, and feedback on the quality and utility of workshops.
- › Articles and editorials published in the medical press and medical journals, and reach (size of readership) of publications.
- › Consumer engagement in online targeted educational activities such as videos and podcasts.
- › Resources disseminated to consumers through the StrokeSafe and F.A.S.T. Community Education program.
- › Number of StrokeSafe presentations delivered and audience size.
- › Engagement with social media posts.
- › Media stories generated and reach.

Detecting the killer – diagnosing AF

An insertable heart monitor the size of a paper clip has the potential to provide much needed answers for Australian stroke survivors, helping to prevent future stroke.

In June 2018, implantable loop recorders were listed on the Medical Benefits Schedule (MBS) to assist in the diagnosis of AF. These devices are capable of continuous uninterrupted monitoring, which can detect very short durations of arrhythmic episodes.

Currently, access to this diagnostic technology is limited. While the implantation of the device is covered by the MBS, allowing patients with private health cover access, there is no funding support provided for patients in the public health system. Currently, the Australian Refined Diagnosis Related Groups (ARDRG) do not capture this technology for the purposes of diagnosing AF for patients with stroke. In addition, ongoing monitoring of patients who have had the device implanted is not funded, regardless of whether patients are covered by private health insurance. Thus, the benefits of this diagnostic technology are not being realised.

The Clinical Guidelines for Stroke Management recommend this diagnostic procedure be available to appropriate patients to prevent recurrent stroke. Work must be done to ensure all Australians who need it can access it.

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Lindy's Story

Lindy Cooke, 58, has AF.

“It was very unsettling to feel like your heart was racing a million times a minute. I’d just be lying down trying to sleep, but my heart was still racing,” Lindy said.

In 2008, Lindy suffered a major stroke after three blood clots travelled from her heart to her brain.

“The stroke affected the left side of my body - I couldn’t move my hand, arm or leg. I needed around the clock care when I first got home. But I worked hard on my rehabilitation and learnt to walk and live independently again.”

Lindy has undergone physiotherapy for the past ten years to improve her movement.

“I do have a lot of positives in my life too. I enjoy my volunteer position at the local health service. My two daughters have been so supportive, and I have three beautiful grandchildren who I love spending time with. It is not an easy journey, so I try to focus on the positives. Try to stay positive and don’t give up.”



Lindy Cooke (centre) with Stroke Foundation Chief Executive Officer Sharon McGowan and Federal Health Minister the Hon Greg Hunt MP.

Proposal 2

Right monitor, right method, right result – blood pressure monitors best buy program to empower Australians to detect and better manage their risk of stroke and heart disease (Actions 1.1.3 and 1.3.3).

Investment: \$300,000 per annum over three years (an additional \$150,000 per annum in funding over two years will be sourced from an industry partner).

The opportunity

High blood pressure (BP) is the key risk factor for stroke and heart disease, but with knowledge it is preventable and manageable.

More than 4.1 million Australians have uncontrolled high BP.¹⁷ High BP often has no symptoms. The only way to know if you have high BP is to have it checked.

Home self-monitoring of BP is recommended to guide clinical decisions on hypertension and is used worldwide for cardiovascular risk management. However, there is little information on the right monitor to use or how to use it to get the most accurate result.

This means millions of Australians are relying on BP machines that provide inaccurate and misleading results. The consequences could be dire.

An evaluation of almost 1,000 machines available from reputable retailers on the Australian market found¹⁸:

- › Five percent of machines were validated.
- › 18 percent of 278 upper-arm cuff BP devices were validated.
- › Eight percent of 162 wrist-cuff devices were validated.
- › Zero wrist band wearable devices were validated.



“

Research has shown the number of strokes would be almost cut in half (48 percent) if high blood pressure alone was eliminated.

”

Associate Professor Seana Gall
Member of Stroke Foundation
Clinical Council

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The solution

The Right monitor, right method, right result – blood pressure monitors best buy program, delivering targeted communications and education to health professionals and the community.

It will help Australians manage their own health through improved identification and management of high blood pressure.

Outputs

- Dedicated website delivering quality resources and information on validated BP devices, and BP monitoring methods.
- Partnerships between Stroke Foundation, Heart Foundation, and leading experts in BP monitoring for risk factor identification, and independent consumer advocacy groups to deliver best buy recommendations.
- Partnerships with professional societies and colleges in general practice, nursing and pharmacy, to develop educational resources, including webinars and accredited online learning modules.
- Delivery of online targeted educational resources, including webinars and online learning modules, on InformMe, Stroke Foundation's dedicated online resource for health professionals working in stroke care which has more than 11,000 registered users.
- Delivery of online targeted educational resources, including videos, podcasts and fact sheets on EnableMe, Stroke Foundation's dedicated online resource co-designed with stroke survivors, their families and carers which has more than 7,000 registered users.
- Development of targeted educational content for social media platforms.
- Targeted print, online, radio, and television media stories. The campaign will leverage existing annual campaigns, including World Hypertension Day.

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Evaluation

An evaluation plan will be developed to produce a report on the outcomes at the end of the project, with monitoring throughout for continuous improvement. Precise measures will be devised at the commencement of the project, and could include:

- › Health professionals who engaged in online targeted educational activities, such as webinars and online learning modules.
- › Qualitative and quantitative participant feedback on the quality and utility of online targeted educational activities.
- › Consumers engaged in online targeted educational activities such as videos and podcasts.
- › Website users.
- › Engagement on social media posts.
- › Media mentions and reach.

Proposal 3

Australian Telestroke Network (ATN) ensuring treatment and care is accessible when and where it is needed (Actions 2.1.3, 2.1.5, and 2.2.1).

The opportunity

Australian stroke patients no longer need to be forced into a postcode lottery.

Currently, regional and rural Australians have limited access to time-critical stroke treatment, and it is costing lives and devastating families.

There have been significant advancements in emergency stroke treatment, meaning stroke is more treatable. However, results from the 2019 National Stroke Audit Acute Services showed regional health services and their patients were being left behind.¹⁹ Regional patients had limited access to well established standard stroke treatments, while major city hospitals were innovating, enabling their patients to benefit from the latest breakthroughs.¹⁹

Victoria and South Australia are leading the way in addressing inequality in access and improving health outcomes. These states have developed pathways of care linking rural centres with comprehensive stroke centres in major cities, delivering best-practice treatment and care 24 hours a day, seven days a week.

With Federal Government support, a similar system is soon to be rolled out in NSW.

However, for the rest of the country there is still more to be done.

Tasmania, the Northern Territory and the Australian Capital Territory do not have a comprehensive stroke centre or formal clinical pathways to ensure patient access to a centre in another state. In Queensland, access to centres outside of Brisbane and the Gold Coast is very limited.

All Australians need and deserve equal access to the evidence-based care and treatment that is proven to save lives and improve outcomes.



"The one thing I always remember is the doctor in charge in ICU saying it took us too long to get to the stroke unit," Tracy said. "I remember asking how rural patients were supposed to get to hospital in time."

– Tracy Ward, wife and carer to stroke survivor Stephen and regional Australian.

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The solution

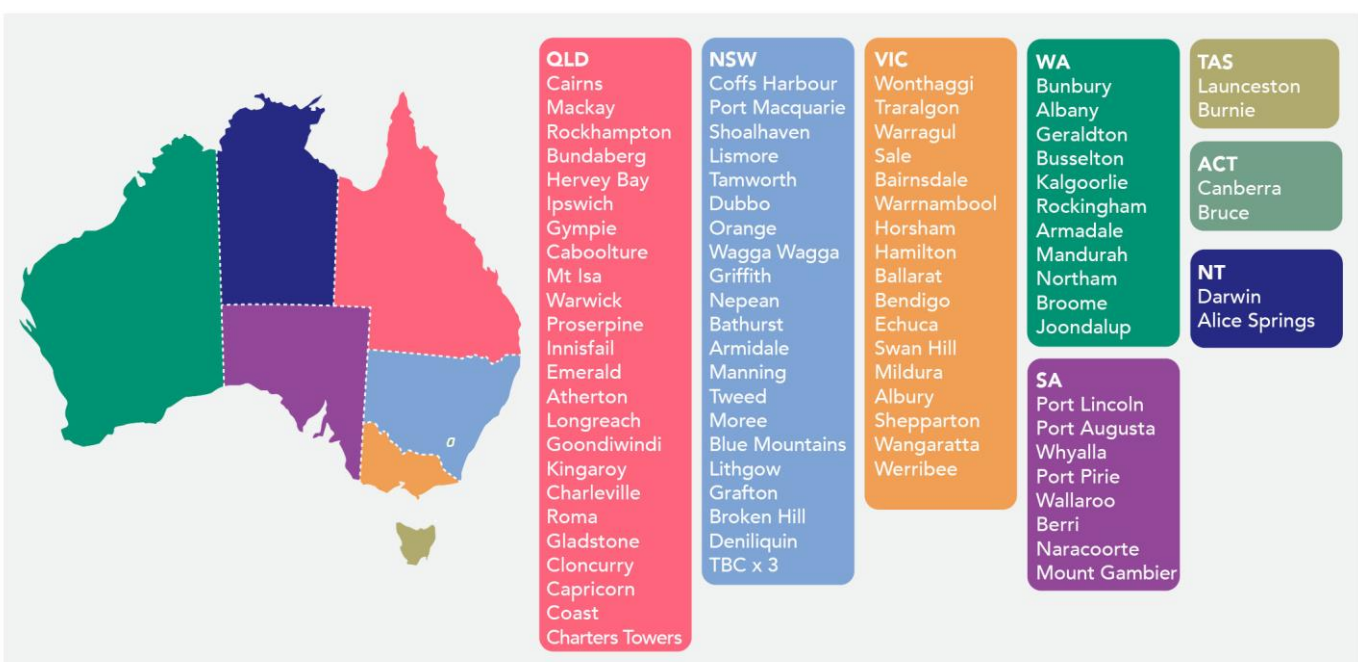
An ATN will seamlessly connect emergency departments in selected regional hospitals to a roster of metropolitan-based neurologists. Neurologists will be accessible every day, all day, via a single 1300 telephone number.

Through innovative mobile technology and software, stroke specialists will remotely examine patients at the bedside, review brain imaging, and provide rapid diagnosis and treatment advice in consultation with local clinicians and the patient. Geographical location will no longer be a barrier to best-practice stroke treatment.

Where a patient is identified as being eligible for clot removal (endovascular thrombectomy), the neurologist, regional emergency department and Ambulance Service will have clear and efficient processes to support transfer of the patient to a comprehensive stroke centre.

Similarly, where a patient is identified as being eligible for clot-dissolving treatment, these stakeholders will have clear and efficient processes either to begin treatment locally, or to initiate transfer of the patient to the nearest comprehensive stroke centre.

Stroke Foundation has partnered with the State and Territory Stroke Clinical Networks and the Australian Stroke Coalition (an alliance of organisations and groups working in the stroke field, including clinical networks, professional organisations and colleges), to develop a plan for the roll out of the ATN. Sites (listed below) have been selected in order to achieve maximum coverage and benefits for Australians.



Outputs

The ATN will be delivered in two phases:

- › **Phase One: State-by-state roll out.** Services will connect with nearby states through shared service agreements where they do not have capacity within their own health system. For example, in Tasmania, telestroke will be delivered by Victoria.
- › **Phase Two: Transition to a National Network** supported through a national agreement spearheaded by the Federal Government. A national co-ordinating body will oversee telestroke service delivery across the country.

The following components will be essential for the roll out of the pilot:

- › Infrastructure - this will include equipment, connectivity, and software. Of central importance is access to Computed Tomography Perfusion (CTP) diagnostic imaging. There is potential in some locations to utilise existing hardware and leverage current telehealth systems.
- › Support personnel – a Project Manager to oversee implementation and ensure project milestones are reached. The Project Manager will undertake rostering of neurologists for the national network, ensuring that 24/7 coverage is available in all State and Territories. In addition, site co-ordinators will be needed to champion the ATN with local clinicians. This work will involve close collaboration with State and Territory Departments of Health and Stroke Clinical Networks, hospitals, clinicians and consumers.
- › Local stroke awareness - Targeted F.A.S.T. community education will be delivered concurrently in areas where the ATN will be rolled out, raising awareness about stroke and its signs and symptoms. This will ensure residents call an ambulance at the first sign of stroke, optimising access to assessment and emergency stroke treatment at telestroke sites.

Evaluation

A formal evaluation plan will be developed, and the service will be monitored throughout for continuous improvement. Precise measures will be devised at the commencement of the service, and could include:

- › Eligible rural and regional patients with acute stroke receiving clot-dissolving treatment within the critical time window.
- › Eligible rural and regional patients with acute stroke receiving clot-removal treatment within the critical time window.
- › Change in door-to-needle time (the crucial delay from emergency department arrival to treatment that is directly linked to patient outcomes).
- › Calls to the service resulting in a diagnosis other than stroke (general teleneurology consultations).
- › Rural and regional patients requiring transfer to a metropolitan hospital and those avoiding transfer unnecessarily.
- › Quantitative and qualitative feedback from metropolitan neurologists, retrieval services and country clinicians (change in confidence when dealing with complex neurological conditions) about the service.

Bill's Story²⁰

Bill Vernon (pictured right) was 53 when he suffered his stroke in December 2013.

One night, Bill, who worked as a mechanic at a mine near Collie in regional Western Australia, collapsed after getting up to go to the bathroom.

In less than half an hour, Bill was at the hospital, but despite presenting with signs of a stroke, he only underwent ECG (heart) and blood pressure tests.

The hospital did not have a CT machine, and the doctor was unsure of a diagnosis. Bill was left in a dark room overnight, waiting for a transfer scheduled for 8:30am the next day.

Bill was taken to a larger hospital at 6:30am the following morning, but by then it was too late to have a clot-dissolving thrombolysis injection administered.

The delay in his diagnoses meant Bill became severely disabled, initially bedridden and unable to talk.

For almost a year Bill and his wife moved to Perth, two hours from home, to undergo rehabilitation.

During his rehabilitation Bill's goal was to get back to work, but his inability to speak proved too large a barrier.

Prior to his stroke, Bill rode his bike 50 kilometres to and from work each day, but now he spends most days tinkering with cars and pottering around his farm.



Proposal 4

A national StOP (Stroke Outreach Program) trial – supporting Australians with stroke to make the best recovery possible, to be well, actively engage with the community and optimally return to education, work or retirement (Actions 1.2.2, 1.2.3, 3.2.1, 3.2.2 and 3.3.2).

Investment: \$348,443 per annum over four years.

The opportunity

Having already experienced the devastating impact of stroke, survivors also face a significantly higher risk of stroke compared with other Australians. Four in 10 stroke survivors will go on to have another stroke within a decade.²¹

The Clinical Guidelines for Stroke Management state hospital patients should be informed of their risk factors for stroke and how to reduce their risk before they return home. Despite this, 28 percent of Australian stroke survivors are discharged from hospital acute care settings without vital advice on what they need to do.¹⁹

Stroke risk factors are not well understood in the community. After a stroke, people are often highly motivated to take action to improve their health. But without education and support, they often find it difficult to effectively reduce their risk of stroke and other chronic diseases.

The outcomes of this are clear. Failure to adhere to prescribed medication continues to be a major barrier to preventing another stroke. In one overseas study, the proportion of people who continued using hospital-prescribed medication after two years was 74 percent for antihypertensives, 56 percent for statins, 64 percent for antiplatelet agents, and 45 percent for warfarin.²² Specific data in Australian stroke survivors is lacking, however we know that non-adherence to cardiovascular medications is high; in the older population, the overall prevalence of non-adherence is up to 43 percent.²³

The solution

The Stroke Outreach Program (StOP) works with health professionals and stroke survivors, carers and families, to reduce people's risk of another stroke and to live well. StOP has two key components:

- › Education for hospital clinicians and support for quality improvement to equip clinicians to deliver prevention planning and education to every patient, every time.
- › Education and support for stroke survivors. StOP health professionals deliver prevention planning, education, support and care coordination after hospital discharge, to ensure every stroke survivor has the knowledge and the support they need.

Intervention after a stroke is key to ensuring Australians reduce their risk of another stroke. There is clear evidence education and support is effective in promoting medication adherence and supporting lifestyle change.²⁴ Further, a recent study found attending a general practice or outpatient clinic appointment within 30 days of hospital discharge is associated with a reduction in hospital readmission among older stroke patients.²⁵

Intervention after a stroke will help avoid death and further disability and will also reduce healthcare costs.

StOP aims to:

- › **Improve management of stroke risk factors.**
 - › Increase people's knowledge of their risk factors and their confidence to manage these.
 - › Ensure people have a plan to manage their risk factors and they take action.
 - › Connect people with primary care and ensure attendance at outpatient appointments.
- › **Improve management of mental health and well-being.**
 - › Identify when people are vulnerable, providing more support to people with depression and anxiety.
 - › Ensure needed appointments and services are in place, coordinating care as required.

This trial will produce high-quality evidence to guide potential investment in creating a healthier Australia. It will have a measurable impact on our health system's sustainability, our community's productivity and on Australian health outcomes.

StOP in Tasmania

StOP is a new approach for the Stroke Foundation and is currently being delivered in Tasmania. A pilot evaluation of the Tasmanian StOP Program is underway and will pave the way for a national trial.

Preliminary results have indicated:

- › 17 percent increase in participant knowledge of their stroke risk factors.
- › 16 percent increase in participant confidence in managing their risk factors.
- › 10 percent of participants have been identified as being at risk of poor outcomes.
- › 22 percent of participants needed care coordination, including referrals to other service providers and outpatient appointments.

Outputs

StOP is a new approach, providing an integrated approach to stroke, including awareness of the signs of stroke, access to time-critical treatment and now, an evidence-informed, system-wide approach to prevention of secondary stroke.

There is a need for high-quality research into effective approaches for preventing secondary stroke in the Australian community.

A national trial of the StOP approach will test the effectiveness of the model and deliver evidence of outcomes. Working with consumers, researchers and hospital partners, we will deliver and test:

- › A quality improvement program for hospitals that ensures every patient receives secondary prevention planning and education before they go home.
- › Individualised education and support for stroke survivors once they return home.

We will also deliver and test new tools and resources to support people to take action to reduce their risk of another stroke. This includes:

- › Using text message methodologies that have shown promise in cardiovascular care.
- › Building a planning and tracking tool with supporting resources that will become a part EnableMe. As mentioned previously, EnableMe is Stroke Foundation's dedicated online resource co-designed with stroke survivors, their families and carers, which has more than 7,000 registered users.

Evaluation

This trial would compare the impact and outcomes for people who received StOP with those receiving usual care. The evaluation would examine medical and lifestyle risk factor management, with a focus on medication adherence, behaviour change and connection to ongoing medical care. It will consider the social and economic impact of StOP, examining the benefits of further investment.

Budget

Year One: \$392,258

Year Two: \$617,111

Year Three: \$192,203

Year Four: \$192,203

Karen's Story

Karen has high blood pressure, high cholesterol and has struggled with depression and anxiety.

Our StOP health professional began the call with Karen by asking about wellbeing since her stroke. Karen reported she was doing well, that she had a supportive GP and psychologist. We spoke with Karen about her past experiences of depression and anxiety, and developed a plan with her about what she would do if she noticed changes to her mood.

We then asked Karen about her risk factors. Karen had known about her high cholesterol for many years and reported she was confident in managing this. She was thinking about making changes to her diet, so we provided information about this.

Karen was unaware she had high blood pressure, and that she had been prescribed medication for this. She did not understand why high blood pressure could lead to stroke and was not confident in managing her blood pressure.

We provided information on blood pressure, working with Karen to develop a plan about how she would manage her blood pressure into the future. We explained how her prescribed medication works and let her know she would need to continue to take it and to check her blood pressure regularly for the rest of her life. Karen reported feeling more confident about managing her blood pressure in the future.

With Karen's consent, we wrote to her GP and outlined the need to provide ongoing education and management to Karen about her risk factors, with a focus on blood pressure. We also wrote to Karen to provide an overview of the things discussed and details of supports and services available to her.

Proposal 5

Childhood Stroke - Research to help our littlest stroke survivors grow and thrive (Actions 4.1.1, 4.1.2, 4.2.1 and 4.3.4) .

Investment: \$1,000,000 per annum over four years.

The opportunity

Around 500 strokes are suffered by Australian children each year. Stroke is among the top ten causes of death in children, and 50 percent of survivors will have a long-term neurological impairment.²⁶

Parents will struggle to understand how stroke could strike their child, let alone navigate the treatment and recovery journey.

The journey can be hard, and for many families it lasts for a lifetime. As the impacted child grows, the challenges change. Stroke can impact every element of family life. It changes relationships and lives.

There is so much about this disease in our littlest survivors we don't know. What we do know are the areas of need, where research has the potential to have the greatest impact:

- › Shortening the time to diagnosis.
- › Standardised approach to inpatient management (including the treatment of seizures).
- › Support for families, helping patients understand and navigate life after stroke.
- › Appropriate discharge planning and developmental follow-up to facilitate early detection of cerebral palsy and epilepsy.

The solution

Stroke Foundation partnering with the Australian Government to deliver a national transformation of the diagnosis and treatment of childhood stroke.

The smaller the child, the greater the opportunity for creating new neuropathways or connections in the brain. Stroke may have damaged areas of the brain, but with early diagnosis, treatment, rehabilitation and support, new pathways can be created. However, we don't currently understand enough to ensure these opportunities are maximised.

Working with researchers, hospitals and families across Australia, to deliver real change. Leading the way internationally to research the latest in childhood stroke interventions.

Outputs

- › Trialling and implementing new rapid assessment and treatment protocols for babies and children impacted by stroke, to help them grow and thrive.
- › Implement a national brain attack protocol tailored to the specific needs of ambulance services and emergency departments (EDs) assessing and treating children with suspected stroke.
- › New 'living guidelines' for the treatment of stroke in babies and children – building on the current Medical Research Future Fund pilot of stroke 'living guidelines. Translating the latest in evidence into practice.
- › Childhood stroke coordinators based at our major children's hospitals to implement the research pilot, support families and boost the understanding of stroke in our maternity and children's hospitals.
- › By identifying children who are most likely to benefit from treatment, we will be treating the right children with stroke, who have brain that can be saved, in the right way.
- › 'Our Family's Stroke Journey' Project, facilitating a comprehensive roll out of a new resource developed by Stroke Foundation in partnership with Little Stroke Warriors, to help families live well after stroke.
- › Work with parents and families to deliver high-quality resources to equip parents to explain stroke to their child and their child's peers - age-appropriate resources that may include information sheets, videos and animation.



Mums Kylie Facer and Dee Banks, whose daughters Anika and Emma (pictured left) are childhood stroke survivors, established the Little Stroke Warriors organisation to help other parents just like them. The Little Stroke Warriors motto is “be fierce, be brave, be mighty”. Kylie and Dee are working tirelessly to ensure other parents don’t leave hospital scratching their heads in confusion, having to turn to “Dr Google” in desperation for answers like they did.

Evaluation

An evaluation plan will be developed to produce a report on the outcomes at the end of the project, with monitoring throughout for continuous improvement. Precise measures will be devised at the commencement of the project, and could include:

- › Baseline and ongoing data demonstrating treatment times for children and babies and the implementation of code stroke treatment protocols.
- › Health professionals who engaged in online targeted educational activities such as webinars and online learning modules.
- › Effective translation and integration of research evidence into childhood stroke health practice service delivery, to improve the outcomes for children and babies
- › A national brain attack protocol tailored to the specific needs of ambulance services and emergency departments (EDs) assessing and treating children with suspected stroke will be implemented.

Alignment with Australian Government priorities

Proposals outlined in this submission support Australia's Long-term National Health Plan to build the world's best health system:

- ✓ Pillar One: Guaranteeing Medicare, stronger primary care and improving access to medicines through the PBS.
- ✓ Pillar Two: Supporting our public and private hospitals, including improvements to private health insurance.
- ✓ Pillar Three: Mental health and preventive health.
- ✓ Pillar Four: Medical research to save lives and boost the economy.

Proposals reflect National Strategic Action Plan for Heart and Stroke priority areas and recommended actions:

- ✓ Prevention and early detection:
 - 1.1 Detect and better manage Australians at risk of heart disease and stroke.
 - 1.2 Address risk factors for heart disease and stroke to encourage all Australians to live healthier lives.
 - 1.3 Increase awareness and understanding of heart disease and stroke within the Australian community.
- ✓ Diagnosis and treatment
 - 2.1 Provide efficient, effective and appropriate treatment for all Australians.
 - 2.2 Ensure treatment and care is accessible when and where it is needed.
- ✓ Support and care
 - 3.2 Improve the patient and carer journey from hospital to the community, through multidisciplinary, coordinated care.
 - 3.3 Support Australians with heart disease and stroke to make the best recovery possible, to be well, to actively engage with the community and optimally return to education, work or retirement.
- ✓ Research
 - 4.1 Ensure a well-funded, collaborative approach to cardiovascular research.
 - 4.2 Develop a platform to rapidly translate research evidence into clinical practice and policy.
 - 4.3 Continue to enhance data collection for, and management of, cardiovascular diseases.

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Federal Pre-Budget Submission 2020-21



About the Stroke Foundation

The Stroke Foundation is a national charity that partners with the community to prevent, treat and beat stroke. We do this through raising awareness, facilitating research and supporting stroke survivors.

Contact

Peta James

Stroke Foundation National Manager, Public Affairs & Advocacy

Ph: 03 9918 7278

pjames@strokefoundation.org.au