

## Building a better health system for South Australians with stroke

- › **In partnership with the Government of South Australia (SA), Stroke Foundation proposes to build a better future for all South Australians by investing in stroke clinicians, services and world-class infrastructure.**
- › South Australians are among those at highest risk of stroke (per capita).<sup>1</sup> This year alone, almost 5,000 strokes will be experienced in our state.<sup>1</sup>
- › Stroke can be prevented, it can be treated, and it can be beaten.
- › Government of SA focus and investment in stroke care pathways and protocols is delivering results. The state is leading the way nationally in ensuring access to emergency stroke treatments for all South Australians.
- › The establishment of Wellbeing SA has the potential to reduce this largely preventable disease's impact on the community.
- › Now there is an opportunity to see the value of the taxpayer dollar maximised; resulting in improved health services and a healthier SA.
- › What is needed:
  - › Proposal 1: F.A.S.T. Community Education Program to reduce stroke and speed up treatment.
  - › Proposal 2: Boost the capacity of clinicians through the establishment of a Community of Practice.
  - › Proposal 3: Fully fund an ongoing 24/7 SA Telestroke Service
- › **These initiatives will strengthen reforms to deliver a safe, high quality and financially sustainable health system into the future.**

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## Jimbo's Story

South Australian Jim 'Jimbo' Cartwright (pictured below) suffered a stroke in November 2005 at the age of 52.

Jim, who was a heavy smoker and drinker, was asleep on the couch after a big night out. He woke up around midday to the sound of someone at the front door and fell over as he got up to answer it.

At the door was a friend of his, who was also nurse. As soon as Jim opened the door, she saw his facial droop and knew it was a stroke. The nurse quickly called triple zero (000).

Jim was taken to hospital for treatment and then spent the next six months in rehab, learning how to walk and talk again.

Today, Jim's recovery is continuing. He is back driving and has returned to work part-time.

Jim has not touched a cigarette or alcoholic drink since his stroke, and says he has never felt healthier.

Jim is also committed to helping others avoid stroke. A Stroke Foundation volunteer StrokeSafe speaker, Jim shares his story, empowering others to avoid stroke and call an ambulance at the first sign.

**"I love giving StrokeSafe talks in the community to raise stroke awareness," Jim said.**

**"It's never too late to change."**



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## Proposal 1

**F.A.S.T. (Face, Arms, Speech, and Time) Community Education to deliver stroke education and chronic disease prevention messages in targeted communities.**

**Investment:** \$128,000 per annum over three years.



The F.A.S.T. Community Education Program has been developed and is ready to be rolled out in SA.

Central to the program is recruiting, training and providing support to local volunteers to raise awareness in the community about stroke, including the signs of stroke, and chronic disease prevention. Through the compelling voice of those impacted by stroke, we will increase knowledge and help to ensure patients get to hospital in the critical time window for life-saving stroke treatment.

### Rationale

While there is a lack of solid local trend evidence in Australia, increasing rates of young or working age stroke have been observed internationally.<sup>2</sup> Specifically, the Global Burden of Disease Stroke Experts Group noted a 25 percent increase in stroke incidence in people aged 20–64 years between 1990 and 2010.<sup>2</sup> The increasing rates of stroke in younger people worldwide are thought to be due, at least in part, to an increase in modifiable risk factors such as hypertension, diabetes and obesity.

Currently, there is a lack of awareness in the community about stroke. A recent Stroke Foundation study of awareness of the signs of stroke found just nine percent of South Australians knew an inability to lift both arms was a sign of stroke (unprompted).<sup>3</sup> Awareness was at 48 percent for speech difficulties and 24 percent for facial drooping.<sup>3</sup>

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## Outputs

Stroke Foundation currently has eight volunteer speakers in SA who are trained and ready to deliver community talks. In the last 12 months, there have been 39 talks delivered in SA.

**With the support of the Government of SA, this pool of volunteers will be expanded, enabling more targeted talks to be delivered, and more community members to be empowered to live well including those in regional areas.**

In addition to delivering StrokeSafe talks, volunteers will set up displays and activities at community events, distribute F.A.S.T. collateral (bookmarks, fridge magnets, wallet cards and 'Understand and Prevent Stroke' booklets), and engage local media, which will facilitate improved awareness about the signs of stroke and dispatches of ambulances.

This Program will ensure established clinical pathways and the SA Telestroke Service's potential are realised.

## Digital health checks in the community

**The number of strokes experienced would be almost cut in half (48 percent) if high blood pressure alone was eliminated.<sup>4</sup>**

Almost **350,000 South Australians have high blood pressure.**<sup>1</sup> High blood pressure is the key risk factor for stroke, but with knowledge it is preventable and manageable.

**We can reduce the number of preventable strokes experienced by South Australians by supporting them to identify and manage their risk of stroke.** Change is possible.

As part of this program, South Australians will be given the opportunity to undertake a free 5-minute health check using innovative digital health stations from our partner SiSU Wellness, which will be located in busy public locations (e.g. shopping centres, libraries, and workplaces).

The health check will include blood pressure, stroke risk, heart rate, age, weight and BMI, plus diabetes (AUSDRISK). Any participant found to be at high risk will be referred to their doctor for a comprehensive assessment. Participants with medium or low risk will be sent information in follow-up emails to support them making positive lifestyle changes to reduce their risk of stroke. Participants will also get information on how to recognise the signs of stroke.

Digital health stations will initially be placed at key locations in South Australia for a period of three to four weeks, and will return to the same location six months later. This will allow participants to get re-checked for free at key intervals, and to connect with local services following the results of their health check.

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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:

- › Improved recall of the signs of stroke test – F.A.S.T.
- › Number of people reached by the program broken down by Socio-Economic Indexes for Areas (SEIFA).
- › Improved awareness of lifestyle habits and health literacy – improving overall health and helping prevent many chronic diseases (cancer, heart disease, diabetes, kidney disease etc).
- › F.A.S.T. resources delivered.
- › Number of presentations delivered, and audience size.
- › Number of health checks conducted.

## Proven success

F.A.S.T. community education campaigns have proven to directly result in increased awareness of the signs of stroke and calls to emergency services nationally<sup>5</sup> and internationally.<sup>6</sup>

Evaluation of volunteer stroke education programs demonstrate they have significant impact. These programs also aim to encourage people to be more motivated to change their behaviour with regard to stroke health, and to visit their GP in relation to any concerns about stroke risk factors.

At the end of the Federal Government funded F.A.S.T. campaign in 2013–14, delivered by the Stroke Foundation, it was found that among the target audience<sup>5</sup>:

- › **39 percent** of people recognised F.A.S.T. in relation to stroke (up from 34 percent) among the target audience.
- › **87 percent** of people could recognise one or more signs of stroke.
- › **Three in four people (76 percent)** would call an ambulance if a stroke was suspected.

Similar programs funded by State Governments are currently being delivered in Tasmania and Western Australia, and while in their early stages, are showing positive results. These results were also reflected internationally. In New Zealand, calls to

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emergency services increased by 32 percent while the campaign was being delivered<sup>6</sup>, and in the United Kingdom calls increased by 78 percent.<sup>7</sup>

There is a social and economic benefit to be derived from increased awareness of stroke signs. Better awareness means more people getting to hospital in time for life saving treatment, and ultimately less death and disability from stroke. A systematic review and meta-analysis published in *The Lancet* has found for every 1,000 patients who receive clot-dissolving treatment up to six hours after stroke, approximately 100 more will be alive and independent than if they had not received treatment.<sup>8</sup>

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## Proposal 2

### **Boost the capacity of clinicians through the establishment of a South Australian 'Community of Practice' for Stroke.**

SA Government investment has developed a strong infrastructure base for stroke care in the State. Now this infrastructure must be maximised to make stroke treatment and care better for all South Australians.

Importantly, South Australians are dying or being left disabled unnecessarily from stroke because the care they receive is not in line with best-practice guidelines. Specifically, **only 2 of 5 services in SA reported routinely utilising best-practice clinical guidelines, care plans and protocols.**<sup>9</sup>

The establishment of 'Community of Practice' groups across a number of specialty areas, underscores the SA Government's commitment to increasing the uptake of evidence-based practice, data collection and improving the quality of care provided to South Australian patients.

**The Stroke Foundation strongly supports the establishment of a South Australian 'Community of Practice' for Stroke.** This will provide a unifying clinical voice with multidisciplinary state-wide and consumer representation. The 'Community of Practice' will provide the leadership needed to improve access to best-practice stroke care across the state, facilitate clinical engagement, and support system-wide and localised quality improvement. It will also contribute to values based, consumer driven health care.

This approach has already been successfully adopted in an informal way, driven by clinicians, but needs Government support and implementation to encourage state-wide collaboration.

A 'Community of Practice' for Stroke has been established in Tasmania, where it has been well-received by the clinical community. Participants have identified the opportunity to engage in state-wide collaboration with colleagues in other health services as particularly valuable. It has also increased the voice of the consumer within the state's health system.

**A South Australian Community of Practice for Stroke will help close the gap between guidelines and practice and empower South Australian health professionals to deliver and sustain evidence-based stroke treatment and care across the State.**

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## Proposal 3

### **Fully fund an ongoing 24/7 SA Telestroke Service.**

Transitioning the 24/7 Country Stroke Support Service (SA Telestroke Service) from a pilot to a fully funded, ongoing service is an investment in the health of South Australians. It will save lives, strengthen our health system, better support our hard-working health professionals and deliver savings to the health budget.

This will strengthen the existing system and enable it to expand and build its capacity. Building a sustainable 24/7 SA Telestroke Service will ensure previous investment in the service drives value for the taxpayer dollar.

### **Outputs**

Neurologists at metropolitan stroke units are now supporting stroke patients at the State's 61 country hospitals 24 hours a day, seven days a week, via phone and videoconference.

### **Proven success**

What has been achieved in the first 11 months of the 24/7 SA Telestroke Service pilot to April 2019<sup>10</sup>:

- › **238 calls.**
- › **137 (58 percent) patients diagnosed with stroke.**
- › **31/137 patients (23 percent) were treated** with time-critical, emergency therapies, including clot-dissolving (thrombolysis) treatment in 18 patients, clot removal (endovascular thrombectomy) treatment in eight patients, and both of these treatments in five patients.
- › **Doubled clot-dissolving treatment rates** compared with the preceding 11 months.
- › **Three patients who were otherwise eligible for endovascular thrombectomy did not require it**, due to successful clot-dissolving treatment.
- › **126 (53 percent) patients avoided unnecessary transfer.**

**By reducing time to treatment, streamlining workflow, and improving access to clot removal, the Service is reducing the economic burden of stroke in South Australia. In addition, there has been an increase in the confidence of country clinicians in dealing with complex neurological conditions.**

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Importantly, activity of the Service has approximately doubled since the pilot phase, and is likely to continue to increase.<sup>11</sup> Therefore, ongoing SA Government funding is needed to ensure the Service is sustainable, and is able to continue to provide equitable acute stroke services across the State.

**A current gap in regional SA stroke services is the absence of dedicated Regional Stroke Coordinators.** These nursing roles are pivotal for effective coordination, service improvement, continuing education and provision of regional leadership, to support and ensure best-practice, evidence-based treatment and outcomes for regional acute stroke patients. **It is recommended the SA Government establish and fund these important roles, aligned with local health networks, in order to maximise the investment being made in the 24/7 SA Telestroke Service, to complement existing regional stroke services and optimise patient outcomes.**

## Janette's Story<sup>11</sup>

South Australian stroke survivor Janette, from Yorke Peninsula, was 76 when she had a stroke.

Her husband noticed something was wrong and took her straight to Wallaroo Hospital. Janette was assessed by the doctor and sent for a brain scan. A phone call was made to the 24/7 stroke support line to connect with a metropolitan neurologist, who was able to link into the Wallaroo Hospital emergency area via his laptop and assess Janette.

Janette had couldn't speak and had weakness on the right side of her body. Imaging showed Janette had a very serious stroke which was likely to result in death or serious disability.

The locum country GP was guided by the neurologist about appropriate treatment, including the administration of a clot-dissolving drug, to improve blood flow to Janette's brain.

"I can't remember half of my time at Wallaroo Hospital, but I remember the nurses dialling into a specialist at the Royal Adelaide Hospital. The specialist asked me a range of questions over the video conferencing equipment, and determined I should be airlifted to Adelaide," Janette said.

"Within 40 minutes, I was on my way in a helicopter for treatment at the Royal Adelaide Hospital."

Once in Adelaide, Janette had a series of tests, before going into surgery and having the clot removed. She was kept in hospital for two nights, before being discharged.

Janette was able to walk out of the Royal Adelaide Hospital two days later with only minor weakness in her right side.

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The proposals outlined in this submission will support the following goals of the SA Health and Wellbeing Strategy 2019 - 2024:

- ✓ Support and improve individual and community capability to enhance health and wellbeing.
- ✓ Reduce rates of preventable illness, injury and disability.
- ✓ Support system integration to streamline patient flow through health system.
- ✓ Promote innovative and evidence-based models of care to improve the management of acute and chronic conditions and injuries.
- ✓ Promote innovative and evidence-based models of care to improve the management of recovery, rehabilitation and end of life care.

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## 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.

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