

## Healthier. Happier Queensland – helping regional Queenslanders avoid, survive and live well after stroke.

- › In partnership with the Queensland (QLD) Government, Stroke Foundation proposes to keep Queenslanders healthy by continuing to invest in frontline stroke services. Investment will boost access to treatment and the capacity of our health professionals.
- › More than 14,000 Queenslanders will experience a stroke this year<sup>1</sup>, many of these will be experienced by Queenslanders living in regional areas of the state.
- › Regional Australians are 19 percent more likely to suffer a stroke than those in metropolitan areas.<sup>1</sup> Regional Australians are also more likely to die or be left with an ongoing disability as a result of a stroke, because of limited access to treatment.
- › It doesn't need to be this way. Most strokes can be prevented, stroke can be treated, and it can be beaten.
- › The QLD Government has led the way in prevention of stroke through the My Health for Life Program, and the translation of registry data into quality improvement and patient access through StrokeLink.
- › These initiatives are proven to deliver results. More Queenslanders are avoiding stroke, our frontline services are providing better quality care, and our hard-working health professionals are better supported. We are making gains towards a healthier QLD.
- › There is more to be done, especially for regional and rural Queenslanders. We can address current inequalities in stroke prevention, treatment and care:
  - › Proposal 1: Continuing the StrokeLink Program focusing on regional Queensland.
  - › Proposal 2: F.A.S.T. Community Education Program in regional QLD.
  - › Proposal 3: QLD Telestroke Pilot Project.

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## Rodney's Story

Former farmer and Central Queenslander Rodney Hopson's (pictured right) life changed forever when he had a stroke in February 2011.

"I am honest with people about the impact stroke has had on my life, on my loved ones and my business – which I had to give up," he said.

"When you work hard all your life and then you can't do it, it's a very devastating part of life."

Since having his stroke, Rodney has been on a mission to raise awareness of stroke and to save lives across the Queensland outback.

Rodney's Roadshow, went from Bluff to Winton. Rodney stopped in at communities along the way to share his experience and raise awareness of stroke. This journey was supported by the Lions Clubs of Boyne Valley and Boyne Island.

"I was a truck driver and a farmer for a long time," Rodney said.

**"I've seen a huge gap between stroke treatments available to city, coastal and country people," Rodney said.**

"This is a worrying situation. The best thing country people to do is to look after their health and try to prevent having a stroke.

"It's also important to understand the F.A.S.T. signs of stroke and to call 000 immediately as stroke is always a medical emergency."

"I know what it's like to be so busy you can't get into town for a regular GP check up, but you have to make health a priority," he said.



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## Proposal 1

### **Continuing the StrokeLink Program focusing on regional Queensland.**

**Investment:** \$241,000 per annum over three years.

Taking StrokeLink to regional and rural QLD will drive improvements in stroke treatment and care in our regional centres. It will boost the capacity of our regional health services and their clinicians, and as a result ensure improved quality, safety and health outcomes. It will deliver a healthier QLD and a more sustainable health system.

Stroke Foundation is proud to partner with the QLD Government in delivering the StrokeLink Program. This comprehensive, targeted quality improvement program has made great gains in closing the gap between guidelines and practice, by providing expert facilitation and support to hospitals and health services to improve stroke treatment and care.

It is now time to take the benefits of this program to our state's regions.

#### **StrokeLink in QLD**

In the last 12 months:

- › 22 hospitals supported.
- › 10 workshops delivered.
- › 60 percent of participants were from outside the metropolitan area.
- › Locations include Bundaberg, Rockhampton, Cairns, Mackay and Townsville.

**There is a real need and desire to from our regional health services to strengthen the care they provide.**

*"The service that is provided by the Stroke Foundation StrokeLink Team, is patient focused and results driven. It is great to have a service that can help and facilitate change, to always improve our stroke service at each and every hospital in Queensland."*

*Hayley, District Stroke Coordinator QLD.*

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## Outputs

StrokeLink utilises national, state-wide and local data to work directly with health services and health professionals to support them in improving standards of care.

It does this through:

- › Facilitated educational workshops held at hospitals to support the interpretation of local data against national benchmarks, and help clinicians identify barriers, and develop action plans to overcome these barriers for areas prioritised for quality improvement.
- › Tracking of action plans through data.
- › Provision of specialist educational resources.
- › Research dissemination.
- › Networking and peer to peer support.

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## Proven success

The StrokeLink Program has been shown to contribute to substantial and clinically relevant improvements in best-practice stroke care in QLD hospitals.<sup>2, 3</sup>

Highlights included<sup>3</sup>:

- › 78 percent of patients accessing stroke unit care in 2016-17, increase from 58 percent in 2009-12.
- › 10 percent of patients accessing clot-dissolving treatment in 2016-17, increase from seven percent in 2009-12.
- › 65 percent of patients discharged with a care plan in 2016-17, increase from 49 percent in 2012-15.
- › 83 percent of patients discharged on antiplatelets or antithrombotics in 2016-17, increase from 65 percent in 2009-12.
- › 82 percent of patients mobilised on the same day or day after admission in 2016-17, increase from 71 percent in 2009-12.

Improvements in quality of care lead to better health outcomes for patients, and a subsequent reduction in the burden of stroke on the health system and the community.



*Stroke Foundation's StrokeLink facilitator (left, standing) taking the Logan Hospital Team through its data and working together to address gaps in best-practice care.*

*The workshop and action plan focused on the delivery of discharge care planning to aid patients and their families transitioning home after stroke. Prior to the workshop (November 2018 – March 2019) 32 percent of patients received a discharge care plan. Following the workshop, with a plan for action, the support of the Stroke Foundation StrokeLink Program, and focus of the hospital team, there was a quick increase to 38 percent (April 2019 – Aug 2019), and this is continuing to rise. The StrokeLink Program enabled the hospital team to rapidly translate their data into a better service and improved outcomes for patients.*

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## Future Program design

Stroke Foundation proposes to utilise data provided through the implementation of the Health Transparency Bill, stroke registry, and research, including the Stroke Foundation National Audit of Stroke Services, to drive quality improvement in our state's regions.

StrokeLink will support health professionals to translate available data into real outcomes. This includes improved quality, safety and health outcomes. It will deliver a healthier QLD, and a more sustainable health system.

National Stroke Audit Acute Services 2019 showed in inner regional areas<sup>4</sup>:

- › Eight percent of patients accessed thrombolysis (compared to 10 percent in metropolitan locations).
- › 60 percent of patients accessed stroke unit care (compared to 86 percent nationally).
- › 33 percent of patients who did access a stroke unit, spent the length of time recommended in the Clinical Guidelines for Stroke Management time on the stroke unit (90 percent), maximising its benefit.
- › One in three patients were not provided with vital education on how to avoid another stroke.

These gaps in care are barriers to Queenslanders living well.

With proven success in supporting and delivering quality improvement in patient care, StrokeLink will deliver targeted quality improvement and coaching to boost the capacity of our regional health services and health professionals.

We will partner with our state's regions to improve the quality, safety, effectiveness and accessibility of the care provided.

### Strategies to improve the delivery of best-practice stroke treatment and care

Research has shown that strategies to improve the delivery of evidence-based care require a multifaceted approach.<sup>5</sup>

1. **The best-practice care that should be delivered needs to be clearly defined.**
2. **The rates at which best-practice care is delivered must be measured.**
3. **Systems that improve adherence to best-practice care and are proven to improve outcomes need to be developed.**



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## Proposal 2

**F.A.S.T. (Face, Arms, Speech, and Time) Community Education Program in regional QLD to reduce stroke and speed up treatment.**

**Investment:** \$130,000 per annum over three years.



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

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

Thirty-five percent of inner regional stroke patients arrive at hospital within the 4.5 hour window for clot-dissolving treatment (thrombolysis).<sup>4</sup>

The QLD State-wide Stroke Clinical Network's QLD Coordinated Stroke Strategy has recognised the need for increased awareness of the signs of stroke. Community education was a key element of the QLD Coordinated Stroke Strategy to minimise treatment delays.

There is a lack of awareness in the community about stroke and the need for it to be treated as a medical emergency.

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A recent Stroke Foundation study of awareness of the signs of stroke among Queenslanders found unprompted<sup>6</sup>:

- › 32 percent knew facial drooping was a sign.
- › Seven percent knew an inability to lift both arms was a sign.
- › 49 percent knew speech difficulties were a sign.

## Outputs

Stroke Foundation currently has 15 volunteer speakers in regional QLD who are trained and ready to deliver community talks.

In the last 12 months this group has:

- › Delivered 30 StrokeSafe talks in regional QLD. Locations include Bowen, Bundaberg, Cannonvale, Childers, Harristown, Innisfail, Mackay, Oakey, Proserpine, Toowoomba, Wongaling Beach, and Yeppoon.
- › Reached more than 840 regional Queenslanders with stroke prevention and awareness messages.

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

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), gain local workplace support, and engage local media, which will facilitate improved awareness about the signs of stroke and dispatches of ambulances.



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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.

## Proven success

F.A.S.T. community education campaigns are proven to directly result in increased awareness of the signs of stroke and calls to emergency services nationally<sup>7</sup> and internationally.<sup>8</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>7</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 emergency services increased by 32 percent while the campaign was being delivered<sup>8</sup>, and in the United Kingdom calls increased by 78 percent.<sup>9</sup>

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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>10</sup>

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## Kelsey's Story

Queensland stroke survivor Kelsey Gronow (pictured, right) was out doing what she loves, taking part in a parkrun – when her stroke happened.

Kelsey, who was living in Hervey Bay at the time, began to feel unwell towards the end of the five kilometre run, but decided to push on to the finish line where she knew her family were waiting.

Kelsey's mother who had been First Aid trained took one look at her and knew something was seriously wrong. Kelsey's face was dropping on one side, she was losing feeling in her arm and she could not speak or communicate. Thankfully for Kelsey, her mother knew the F.A.S.T. signs, and that time was crucial.



Kelsey's parents quickly got her into the car and drove to the hospital. By the time they arrived, Kelsey had no feeling in her left arm or leg. She was treated for stroke straight away.

Daily visits from the hospital physiotherapist helped Kelsey with the loss of feeling in her left side; however, she still suffers from a memory deficit.

Even now, every time she has a migraine, Kelsey fears another stroke. Though now, her sons also know the F.A.S.T signs and she knows she can call Stroke Foundation's StrokeLine team anytime.

Kelsey now lives in Far North Queensland, and still goes to parkrun every Saturday. Her rehabilitation and recovery would not have been as strong without her weekly parkrun event. Kelsey pushed her wheelie walker for 5km until she was able to walk unassisted. She is now 47 kilograms lighter.

**“Without F.A.S.T. being recognised by my Mum and Dad, which most certainly saved my life, I don't think I would have made it this far.”**

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## Proposal 3

### **Queensland Telestroke Pilot – delivering Queenslanders access to emergency stroke treatment when and where they need it.**

All Queenslanders need and deserve access to the best possible health services. More than half of our state’s population live outside the Brisbane metropolitan region, and about 34 percent live outside the South East corner.<sup>11</sup>

Stroke is a serious medical emergency, a leading cause of death and disability, and requires urgent medical attention, but with the right treatment at the right time, many people can recover from stroke. Recent advancements in ‘time is brain’ treatments are saving lives and reducing disability in stroke survivors; however, for Queenslanders living in regional, rural and remote areas of the state, access to these game-changing stroke treatments is virtually non-existent.

State Governments in Victoria, South Australia, New South Wales and Western Australia have implemented, or are trialling, state-wide telestroke services to close this gap and improve access to time-critical treatments for those in regional, rural and remote areas.

Our state has the largest managed telehealth network in Australia, with more than 9,000 hardware and software videoconferencing endpoints deployed in over 200 facilities, supporting more than 100 clinical specialities and sub-specialties.

It is time we capitalised on this expertise and infrastructure by developing a Queensland Telestroke Pilot. The pilot will establish a strong foundation for a future state-wide telestroke network.

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## Ken's Story<sup>12</sup>

In October 2017, Ken Blackwell, from Middlemount, a remote mining town about 800 kilometres north-west of Brisbane, suffered a stroke.

Ken was swimming after work when he had a sudden and intense headache.

Ken was transported by ambulance to the nearest hospital in about 45 minutes. When he arrived at hospital, the paramedic told the doctor he suspected Ken was having a subarachnoid haemorrhage — a bleed in the brain.

"The doctor came and had a look and at that point as far as I knew the doctor said they were treating me for dehydration and a migraine."

The following morning, about 14 hours later, Ken was discharged without treatment or a diagnosis. The hospital did not have a CT machine.

Ken caught a lift with a friend to Emerald, around an hour-and-a-half drive, to where the doctor had ordered another brain scan at 2:00pm the day after his stroke. The scan was inconclusive.

Ken's family was living in Brisbane at the time, and he knew he had to get to them. Approximately 45 hours after having a stroke, still untreated, Ken boarded a plane to Brisbane, an extremely risky move for someone with a bleed in the brain.

After landing in Brisbane, Ken went straight to hospital, where his stroke was diagnosed.

"When I spoke to the neurosurgeon she was actually surprised I had survived the flight down," Ken said.

Ken's fitness and memory were impacted by the stroke, and he was not able to work for several months.

"You go from being that fit to not even being able to walk 50m without having to sit down."

**"I'm more annoyed than anything. I did survive and it could happen to somebody else and they might not survive," Ken said.**

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## Alignment with Queensland Government priorities

The proposals outlined in this submission will support the following goals of the 'My health, Queensland's future: Advancing health 2026' strategy, which outlines the QLD Government's plan to ensure Queenslanders will be among the healthiest people in the world by 2026:

- ✓ *Promoting wellbeing* - Improving the health of Queenslanders, through concerted action to promote healthy behaviours, prevent illness and injury and address the social determinants of health.
- ✓ *Delivering healthcare* - The core business of the health system, improving access to quality and safe healthcare in its different forms and settings.
- ✓ *Connecting healthcare* - Making the health system work better for consumers, their families and communities by tackling the funding, policy and delivery barriers.
- ✓ *Pursuing innovation* - Developing and capitalising on evidence and models that work, promoting research and translating it into better practice and 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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