



Introduction

Stroke Foundation is a national charity that partners with the community to prevent stroke, save lives and enhance recovery. We do this through raising awareness, facilitating research, and supporting survivors of stroke. As the voice of stroke in Australia, Stroke Foundation welcomes the opportunity to provide input into the Senate Community Affairs References Committee Inquiry into Excess Mortality.

An estimated 39,500 Australians experience stroke annually, ¹ and there are more than 445,000 survivors of stroke living in our community. ² Unless action is taken, it is estimated by 2050, Australians will experience an additional 23,000 new strokes annually, and there will be an additional 374,000 survivors of stroke living in the community. ²

There is a growing body of evidence that shows survivors of stroke are at an increased risk of severe symptoms, complications, and death from COVID-19,³ while the risk of stroke is increased both in individuals who contract COVID-19⁴⁻⁷ and in those who experience Long COVID (where symptoms last more than 4 weeks or are not explained by an alternative diagnosis after 12 weeks).⁸ In addition, the COVID-19 pandemic has caused significant disruption to Australian health services focused on stroke prevention and management of stroke risk,^{9, 10} as well as services for stroke treatment (acute and rehabilitation).¹¹⁻¹³

The Australian Bureau of Statistics (ABS) has reported on Australia's excess mortality during the pandemic, with mortality in 2021 1.6 percent higher than expected, mortality in 2022 11.7 percent higher than expected, and mortality from January to August 2023 6.1 percent higher than expected.¹⁴

Between March 2020 and June 2023, there were 18,922 deaths where people died with or from COVID-19¹⁵:

- The underlying cause of death for 14,941 (79 percent) of these people was COVID-19, and of these 12,126 (81.2 percent) had pre-existing chronic conditions reported on their death certificates, including 473 (3.9 percent) with chronic cerebrovascular diseases (including stroke).
- There were a further 3,981 people who died of other causes, but COVID-19 contributed to their death, and of these, circulatory system diseases (including cerebrovascular diseases such as stroke) were the underlying cause of death in 936 (23.5 percent).

Importantly, while ABS data have demonstrated excess deaths due to conditions such as cancer, dementia, diabetes and ischaemic heart disease during the pandemic, no excess deaths due to cerebrovascular diseases, including stroke, have been observed.¹⁶

This submission describes the impact the COVID-19 pandemic has had on stroke prevention and treatment in Australia, as well as recommendations for Australian governments to address the health impacts of the pandemic and minimise the disruption of stroke prevention and treatment services during future pandemics.

Impact of COVID-19 and Long COVID on stroke prevention in Australia

We know that more than 80 percent of strokes can be prevented,¹⁷ and effective primary stroke prevention remains the best means for reducing the stroke burden. In Australia, a variety of factors,

including lockdowns, the diversion of staff and resources to provide COVID-19-specific care, and the temporary suspension or cancellation of screening services and regular check-ups, have compromised key aspects of chronic disease management and preventive care. For example, at least 27,000 fewer Heart Health Checks were conducted from March 2020 to July 2021 (40 percent reduction), due to the impact of COVID-19. This represents a significant number of Australians who have missed out on early detection of stroke risk during the pandemic, and have allowed their risk to go unmanaged, which could potentially lead to an increase in preventable strokes in future years.

Long COVID imposes a considerable burden on affected individuals and can significantly limit their ability to undertake activities of daily living. Common symptoms such as fatigue and reduced exercise capacity are barriers to remaining physically active and maintaining a healthy diet (impacting the ability to shop and prepare meals). In addition, increased body mass index (BMI) and cholesterol (total and LDL) have been observed in some Long COVID patients, persisting beyond 6 months post-infection. Collectively, all of these factors increase an individual's risk of preventable stroke.

Impact of COVID-19 and Long COVID on Australian stroke services

During the early stages of the COVID-19 pandemic in 2020, health professionals working in stroke treatment and care began reporting about increasing numbers of specialised stroke units being converted into COVID-19 wards, or repurposed to accommodate system-wide changes in bed allocations, and stroke unit staff being redeployed to other areas of the hospital. Importantly, an examination of data from the Australian Stroke Clinical Registry (AuSCR) has demonstrated that acute stroke care in Australia has been negatively impacted by the COVID-19 pandemic. 11, 12

We know that since the beginning of the pandemic, Australian survivors of stroke have been discharged early from hospital, ¹¹ and have been missing out on critical rehabilitation therapy in hospital, ¹¹ and in the community, due to COVID-19 restrictions as well as workforce shortages. This in turn has impacted the ability to appropriately assess and treat survivors in line with stroke rehabilitation guidelines, as well as adequately educate and support carers and families. Data from the Australasian Rehabilitation Outcomes Centre (AROC) has demonstrated that the vast majority of Australian inpatient rehabilitation services were impacted by COVID-19 (loss of rehabilitation wards and beds, and nursing and allied health staff deployed to other services), with only a relatively small proportion of these services (24 percent) reporting that they were starting to return to pre-pandemic levels two years after the start of the pandemic.¹³

Recommendations for Australian governments

Outlined below are recommendations for Australian governments to (i) address the health impacts (including on stroke) of COVID-19 and Long COVID and (ii) strengthen Australia's pandemic preparedness, so that the impact of future pandemics on the delivery of stroke prevention and treatment services can be minimised:

- Federal Government to develop nationally consistent education, training, support and resources
 for GPs and other health care professionals in primary care, to optimally diagnose, treat and
 manage people with Long COVID and associated conditions.
- Federal Government to ensure patients with Long COVID have access to affordable, MBS-funded
 multidisciplinary care (including Allied Health), where the number of sessions they can access is
 determined based on the complexity of care they require, as well as disability supports for those
 with longer-term problems.

- 3. Australian governments to invest in surveillance for Long COVID to track rates, and the impact on health and quality of life outcomes over time.
- 4. Federal Government to commit to long-term investment in key national registries, including the AuSCR and AROC, and other national data collections, that have been crucial in mapping the impact of the COVID-19 pandemic on Australian stroke services.
- 5. Australian governments to invest in research undertaken in collaboration with researchers, health care professionals, patients, families, carers, and other stakeholders, to advance our understanding of Long COVID.
- 6. Federal Government to work closely with the primary care sector to identify and implement specific solutions aimed at avoiding the suspension or cancellation of screening services, routine health check-ups, and diagnostic tests during times of national emergency, ensuring chronic disease management and preventive care are not compromised.
- 7. Federal Government to work closely with state and territory governments to ensure that during times of national emergency:
 - hospitals maintain geographically defined stroke units staffed by specialised medical, nursing, and allied health professionals, to provide evidence-based, best-practice acute stroke care
 - inpatient rehabilitation services, including dedicated inpatient rehabilitation beds and specialist rehabilitation staff, are maintained, so that all survivors of stroke are appropriately assessed and receive best-practice treatment and care, in line with stroke rehabilitation guidelines.

Summary

In summary, while no excess mortality due to cerebrovascular diseases, including stroke, has been observed during the COVID-19 pandemic, the impact of the disruption of stroke prevention and treatment services during this period could have long-term consequences. For example, there could be an increase in the number of strokes in the coming years if Australians who missed out on early detection of stroke risk during the pandemic continue to allow their risk of stroke to go unmanaged. In addition, survivors of stroke who were unable to access the timely acute stroke treatment and rehabilitation therapy they needed during the pandemic may now be living with significant disability, putting additional pressure on the disability and aged care sectors.

Stroke Foundation recognises the COVID-19 pandemic is unprecedented, has impacted the whole community and will continue to require a whole of Government - both federal and state and territory – response. This submission provides recommendations for Australian governments to address the health impacts of the pandemic and minimise the disruption of stroke prevention and treatment services during future pandemics. Stroke Foundation strongly supports the work the Australian Government is currently undertaking to establish a world-class Australian Centre for Disease Control, focused on improving our response and preparedness for public health emergencies.

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