



## Stroke Data Linkage Project

### What is the challenge?

One in six Australians will have a stroke. Sadly, not all these people will receive the same level of care – depending on the time of the stroke and geographic location, people may not have access to recommended best practice. Furthermore, translating and implementing best practice healthcare for all can be costly for funders, consumers and providers in the short term. Changes in practice need to be monitored, evaluated and findings fed back into the system to ensure those changes are in the direction of effectiveness – in processes, patient outcomes and cost.

### About this research translation project

This data linkage project aims to monitor the influence of recent and current health service reforms on all stroke admissions across South Australia, as well as monitoring variation in services across SA's Local Health Networks. The data will include both service delivery and patient outcomes up to 6 months after healthcare services for stroke have been received.

Data will be collected locally from each stroke unit and from SA Health systems; there will also be patient-level data from individual stroke participants. Outputs will be benchmarked against national, aggregated data.

Consumers are key informants in the process: firstly, by consenting to their service/process data being aggregated locally and nationally; secondly, by reporting their individual outcomes at 3-6 months post-stroke. We are consulting with key consumer advisors throughout the project, including discussion at two, state-wide research stroke forums. We have strong links with the National Stroke register which has a consumer voice at all levels.

### What was the impact?

This project has provided clear evidence that stroke care is improving in SA. We evaluated recent and ongoing changes in the clinical management of people with stroke in the metro area of SA. We collected comprehensive data on processes of care, stroke characteristics and outcomes for over 2000

people who sustained a stroke from December 2017 to March 2019. Using these data to create a picture of stroke care across Adelaide and across time, we can confirm that the widespread changes implemented under Transforming Health have had an overall positive effect on processes of care. The hub and spoke model - of 24 hour specialist stroke care at the Royal Adelaide Hospital 'hub' and 12 hour specialist care at the 'spokes' (Flinders and Lyell McEwin Hospitals) - has been instituted to deliver stroke care that measures up to the best in Australia and better than rates in many other developed countries. For example the rate of people receiving thrombectomy interventions has doubled and the rates of people receiving thrombolysis (clot-busting surgery and medication respectively) has steadily increased. The time of receipt of these time-critical interventions is reducing. Further the move from the old RAH to the new RAH did not result in any reduction in services.

The data show some areas that require improvement across the metropolitan area and this information is being packaged to assist clinicians and service providers to adjust processes. We continue to work with the data in relation to recovery outcomes and longer-term service needs in the different metro areas.

### Project contact details

#### University of South Australia

Professor Susan Hillier  
 E [susan.hillier@unisa.edu.au](mailto:susan.hillier@unisa.edu.au)  
 P (08) 8302 2544

*This project received one-year funding from the Medical Research Future Fund Rapid Applied Research Translation Impact Grant Scheme to be undertaken in 2018.*

*Published March 2019*