What we wanted to achieve?

The aim of the project was to implement a new model of care for patients with mild to moderate stroke in order for them to receive specialist rehabilitation in their own home rather than in hospital. This was to be the first Early Supported Discharge (ESD) service for stroke in New Zealand.

By July 1st 2014 we aimed to:
- reduce the average length of stay by 4 days compared to the baseline population
- achieve functional improvements comparable to those made during inpatient rehabilitation, and
- attain a patient satisfaction response of >90%.

Why we wanted to do this?

1. The population of South Auckland is growing faster than in any other part of the country. This puts increasing pressure on our inpatient rehabilitation ward at Middlemore hospital.
2. There is strong international evidence to support intensive rehabilitation in the home through an Early Supported Discharge service.

The evidence for ESD has been cumulative over the last 15 years. A Cochrane Review of Early Supported Discharge service trials published in 2005 found that ESD services could:
- accelerate the return home of patients after stroke
- produce equivalent or better patient and carer outcomes, and
- provide a cost-effective alternative to conventional services.

The Cochrane review found that an average of 40% of hospitalised stroke patients are eligible for ESD intervention and indicated that greatest benefit in clinical outcomes was with the mild and moderate groups.

Results were categorised in three groups:
- No additional harm caused
- Greater chance of living at home and being independent
- No significant change

Resourcing:
- Reduction in length of stay by 8 days
- Potential savings estimated at 20%

The 2010 New Zealand Clinical Guidelines for Stroke Management give an A grade recommendation that an early supported discharge service be offered to all people with mild to moderate stroke.

What were the results?

The average length of stay on rehabilitation ward for patients receiving care in the new service has been reduced by 16 days compared with the baseline group. Patients who stayed for 0 days are those in which an admission to the rehabilitation ward was avoided by having the ESD service.

Another benefit of the ESD service has been improved continuity of care. Prior to the introduction of ESD, patients who were discharged home waited, on average, 18 days before their first community rehabilitation visit. Feedback from patients about this delay indicated that it was a difficult time for them to adjust to being at home. Patients are now seen within 24 hours of discharge.

What were the patients said?

Patients were overwhelmingly satisfied with all aspects of the ESD service with a 99.5% positive response rate to the patient feedback survey.

“Home is best”
Mrs Tsu, ESD Patient

Between September 2013, when the first patient went home under the care of the ESD service, until 1st July 2014 a total of 492 days have been spent at home with loved ones rather than in hospital.

Where to from here?

The Supporting Life After Stroke project has demonstrated that an Early Supported Discharge service can successfully shift care for patients with mild to moderate stroke from inpatient rehabilitation to community care. This has also been shown to have significant benefits for both patients and the hospital system. The cost of the new service is also expected to be lower than the existing service and we are currently undertaking a cost comparison.

To sustain this service for our patients we are in the process of developing Standard Operating Procedures and training systems for both hospital and community-based staff involved in identifying and caring for patients in the new service.

We will continue to monitor the outcomes of the new service to make sure it is delivering optimal care for patients.

To continuously improve the new service we are also:
1. Investigating factors that determine which patients receive the greatest benefit from the service
2. Developing a business case to spread the service to other areas of Counties Manukau DHB.

The Supporting Life After Stroke project has achieved all of its aims and has benefited patients, families and the health system. We have found that the Model for Improvement can be successfully applied to designing a new service that can then be implemented with confidence knowing that each element of the change has been tested.