OPTIMAL Research Project Update – August 2025

Optimising older **P**eople's **T**ransition from acute care **I**nto residential aged care through **M**ultidisciplinary **A**ssessment and **L**iaison (OPTIMAL)

Background

The transition from hospital to residential aged care is an uncertain time, particularly for those entering into residential care for the first time. Findings from a Registry of Senior Australians (ROSA) study show that around 20% of older people who move to residential aged care, present to hospital within the first 3 months of transition.

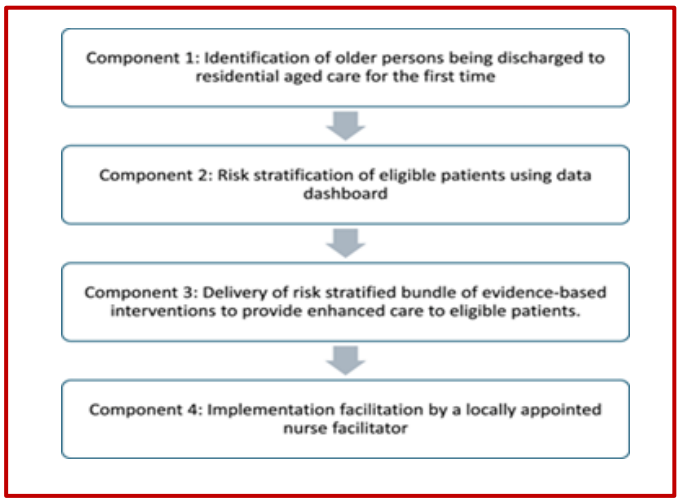
OPTIMAL focuses on people aged 65 years and older, (50 years + for Aboriginal and Torres Strait Islander peoples), being discharged from hospital to a permanent residential aged care facility for the first time. It is being carried out in multiple hospital sites across Central Adelaide Local Health Network (CALHN), Southern Adelaide Local Health Network (SALHN) and Northern Adelaide Local Health Network (NALHN). The OPTIMAL study is part of a Medical Research Future Fund (MRFF) funded project led by Professor Derek Chew ***Using a State-wide Learning Health System for Rapid Deployment, Evaluation and Translation of New Models of Care in SA to Reduce Pressure on ED and Acute Care*** **(MRFF 2018250).** OPTIMAL addresses the workflow at the end of a vulnerable group of older patients' hospital stays, specifically it looks at people who are making their first transition into permanent residential aged care.

Project Aim: To investigate the implementation, clinical effectiveness, and cost effectiveness of a risk-adjusted post-discharge intervention to reduce readmission rates after first-time entry into residential aged care homes (RACH).

Project Design: Hybrid Type II Stepped Wedge Cluster Randomised Controlled Trial with embedded process and economic evaluation across three Local Health Networks (LHNs).

OPTIMAL is led by a research team from Flinders University with partners including SA Health, Health Translation SA, ROSA and the Commission on Excellence and Innovation in Health (CEIH).

Components of the OPTIMAL intervention



CEIH developed a clinical dashboard which draws from the electronic medical records (EMR) data to identify all patients 65 years and older, (50 + years and older for Aboriginal and Torres Strait Islander peoples), being discharged from participating wards to permanent residential aged care for the first time. It then stratifies patients as low/medium/high risk of readmission within 90 days of discharge using an adapted risk prediction model developed by ROSA.

The dashboard enables clinicians to view the patient cohort and their risk category, and it activates a nurse-led transitional care intervention comprising a bundle of evidence-based strategies appropriate to the level of risk. It also provides real-time feedback to clinicians of 30-day and 90-day emergency department presentations and readmissions in this cohort.

OPTIMAL Workshop – 27 February 2025

A second OPTIMAL stakeholder workshop was held on 27 February 2025 in the SAHMRI auditorium, with 56 participants attending with representation from geriatric services, residential aged care, consumers, SA Ambulance Service and general practice. Key aims of the workshop were to hear how the project was progressing in CALHN and their learnings to date, how the planning phase was going in SALHN, and learnings for NALHN randomised to start later in the year.

The workshop also provided a unique opportunity for hospital geriatric services to connect with residential aged care providers during table discussions and through the interactive CALHN panel discussion.

Luke (CALHN OPTIMAL Project Research Nurse) presenting at the February forum

Prof Gill Harvey, facilitating the panel discussion

OPTIMAL Project status

The OPTIMAL Project is progressing well with all three LHNs now in their implementation phase. Due to the stepped wedge study design, the intervention is implemented sequentially across the three LHNs over 14 months, with the intervention starting every 4 months. Therefore, the duration of the intervention phase differs across LHNs.

Each LHN is implementing their own evidence-based suite of risk stratified interventions, but all three include an enhanced discharge pack and follow-up phone call, as standard practice across the patient cohort, regardless of predicted risk. This enables some standardised evaluation of the interventions across the three LHNs.

Other interventions include access to a geriatric 'hot line', medication review by a pharmacist, site visits to residential facilities through to intensive case management for those patients identified as 'high risk' of representation to hospital.

OPTIMAL Research Project Nurses

The experience and expertise of the three OPTIMAL Research Project Nurses is integral to the effective implementation and integrity of the research project. The role of the Research Project Nurse includes working closely with ward staff, strengthening relationships with residential aged care staff and GPs working in RACH, and supporting the implementation of the interventions.

In addition, the Project Nurses provide education to ward staff on appropriately completing the discharge plan note, so that first time discharges to permanent residential care are identified in the EMR and pulled into the OPTIMAL Dashboard.

CALHN was randomised to start first and the intervention has been implemented for the past 9 months. The CALHN OPTIMAL Research Project Nurse, Luke Shepperd, started on the project in October 2024 with the intervention phase commencing in November 2024. The intervention is being delivered in selected wards at the Royal Adelaide Hospital and Hampstead Rehabilitation Centre.

Introducing Luke Shepperd, CALHN Research Project Nurse

Luke Shepperd is a Registered Nurse, who studied at Flinders University. He has a passion for caring for people with dementia, changed behaviours, frailty, and cognitive impairment. Luke currently works dual roles at CALHN in OPTIMAL as the Research Nurse Consultant and Care of the Older Person Nurse Consultant. He is also undertaking his PhD.

Luke is passionate about enhancing research to inform and improve care outcomes for older adults. In Luke's free time, he likes to spend time with his partner, family and dog.

SALHN, was randomised to go second with the SALHN Research Nurse, Sandy Shaw, starting in the role in January 2025 and the intervention phase commencing on 1 March 2025. The intervention is taking place in selected Rehabilitation, Aged Care and Palliative Care (RAP) wards across Flinders Medical Centre, Noarlunga Hospital and the Repat Health Precinct.

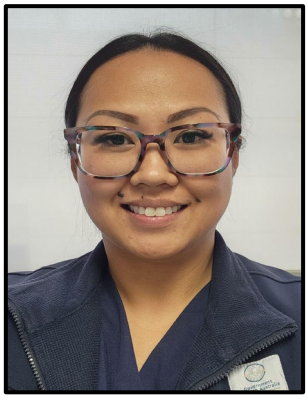
Introducing Sandy Shaw, SALHN OPTIMAL Research Project Nurse

Sandy has been nursing for 40 years across a broad range of nursing settings, and has qualifications in orthopaedic, rehabilitation and gerontology nursing. She has worked in public and private hospitals, aged care facilities - in clinical care, education and management and community aged care nursing.

Prior to OPTIMAL, Sandy was working in the CALHN Transition Care Program as a case manager, supporting patients leaving hospital and returning home.

NALHN was randomised to go third, with their planning phase beginning in May 2025 and their implementation phase commencing on 1 August 2025. The NALHN intervention component is being implemented in selected wards at the Lyell McEwin and Modbury Hospitals.

Introducing Jhoana Carter, NALHN OPTIMAL Research Project Nurse



Jhoana started her career as a Registered Nurse at the RAH in 2010 and has worked in geriatrics, endocrinology and infectious diseases. She moved to NALHN in 2013 and worked in the Stroke Unit for 10 years. Jhoana did her post graduate studies in acute care and moved to the Aged Care, Rehabilitation and Palliative Care Division at NALHN in 2023.

Jhoana was the Nurse Unit Manager of the geriatric rehabilitation ward and then Nurse Consultant of the Acute and Urgent Care Unit at the Lyell McEwin Hospital before undertaking her role with OPTIMAL.

Project evaluation

The project outcomes will be monitored in a number of ways including:

- **Effectiveness outcomes** (eg: number of presentations to ED and/or readmission within 30- and 90-days post discharge into RACH for the first time).
- **Implementation outcomes:** (eg: feasibility, fidelity, appropriateness and acceptability).

Other project measures include pre-and-post implementation interviews and on-line surveys with relevant staff, interviews with selected RACH staff to gather their perspectives and a health economic evaluation component.

OPTIMAL Project timeline

The implementation phase across all three LHNs will end on 30 November 2025 and participants will be followed up for 90 days until February 2026.

It is anticipated that a final OPTIMAL forum will be held later in 2026 to share the key findings and next steps.

For further information please contact Carmel McNamara, Senior Translational Project Officer, Flinders University on carmel.mcnamara@flinders.edu.au