STAAR-SA (State Action on Avoidable Rehospitalisations and Unplanned Admissions)

Implementation Science Communications

STUDY PROTOCOL Open Access

An integrated knowledge translation approach to address avoidable rehospitalisations and unplanned admissions for older people in South Australia: implementation and evaluation program plan

Abstract

Background: Repeated admission to hospital can be stressful for older people and their families and puts additional pressure on the health care system. While there is some evidence about strategies to better integrate care, improve older patients' experiences at transitions of care, and reduce preventable hospital readmissions, implementing these strategies at scale is challenging. This program of research comprises multiple, complementary research activities with an overall goal of improving the care for older people after discharge from hospital. The program leverages existing large datasets and an established collaborative network of clinicians, consumers,

STAAR-SA Overview

The STAAR-SA project aims to improve pathways of care for older people aged 65 years and over after discharge from hospital. The project is funded by an MRFF Rapid Applied Research Translation Grant, administered by Health Translation SA, and focuses on older people living in the community and residential care, who have had an aged care eligibility assessment and are particularly vulnerable to admission/readmission to hospital.

The STAAR-SA project commenced in late 2019 and consists of three inter-connected research activities, referred to as work packages. An integrated knowledge translation approach underpins the research and brings together a diverse range of stakeholders including front-line clinicians, aged care, managers, consumers and academics. Details about the STAAR-SA implementation and evaluation project plan can be found in the following publication STAAR-SA Study Protocol.

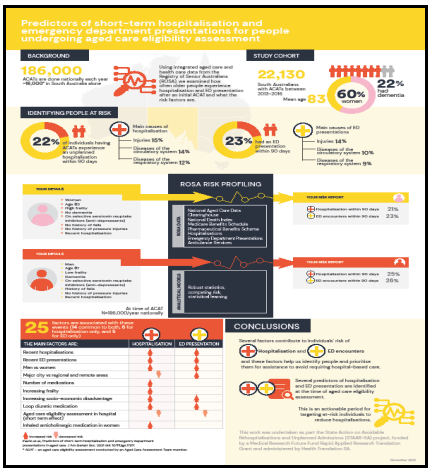
Work Package 1 and Work Package 3 have been completed and the health economic component of Work Package 2 is ongoing to June 2023. Some key findings from the work packages are outlined below and a number of STAAR-SA resources have been developed and can be found on the Health Translation SA website. The resources include infographics and videos and please use the following link to view in more detail Health Translation SA - STAAR-SA Project.

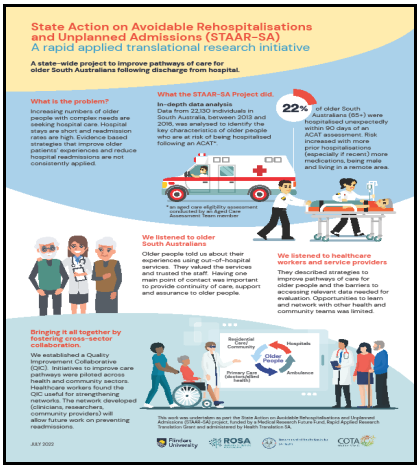
Updates from STAAR-SA Work Packages

Work Package 1: used the integrated aged care and health care data from the Registry of Senior Australians (ROSA) to identify the key characteristics of older people who are at risk of being hospitalised. The analysis constructed predictive models for unplanned hospitalisations and emergency department presentations following an aged care eligibility assessment (referred to as an ACAT) and also after entry into permanent residential aged care.

These models could potentially be used at the point of ACAT or at entry into permanent residential care, to flag and prioritise patients who are at the highest risk of going to hospital within 90 days.

The analysis found that approximately one in five older Australians had a hospital encounter (unplanned admission and/or ED presentation) within 90 days of an ACAT and entry into permanent care. A number of individual characteristics were identified as predictors of these events.





These findings show that there are key touch points that provide opportunities for action and prioritising at-risk individuals for intervention to reduce unplanned hospital presentation. Key findings from Work Package 1 can be found in the following publications:

- Predictors of hospitalisations and emergency department presentations shortly after entering a residential aged care facility in Australia: a retrospective cohort study. (Inacio MC, Jorissen RN, Wesselingh S, Sluggett JK, Whitehead C, Maddison J, Forward J, Bourke A, Harvey G, Crotty M; STAAR-SA Study Collaborators. BMJ Open. 2021;11(11): e057247).
- Predictors of short-term hospitalization and emergency department presentations in aged care. (Inacio MC, Jorissen RN, Khadka J, Whitehead C, Maddison J, Bourke A, Pham CT, Karnon J, Wesselingh SL, Lynch E, Harvey G, Caughey GE, Crotty M. J Am Geriatr Soc).
- Hospitalizations Before and After Entry Into Long-Term Care. (Research Letter. Jorissen RN, Crotty M, Caughey GE, Harvey G, Inacio MC. J Am Med Dir Assoc).

Work Package 2: this health economic analysis will evaluate the cost-effectiveness of out-of-hospital programs/services that patients who have had an ACAT receive. This project has continued to experience ongoing delays due to the significant time needed to obtain the required cross-agency approvals for data linkage. We expect to report the findings from the cost-effectiveness analysis in early 2023.

A second component of Work Package 2 was to gain an insight into the consumer experience of receiving out-of-hospital services. The Council of the Ageing (COTA SA), through their social enterprise The Plug-in, undertook a series of interviews with consumers and/or family members/carers, who had used the selected out-of-hospital services within the past 12 months. The findings from these interviews found that overwhelmingly, each service was highly valued by clients and/or their family members and carers. Key themes to emerge were around a highly skilled workforce that was trusted, knowledgeable and caring.

The interview participants highlighted the importance of having access to a single point of contact, which enabled continuity of care for follow up and access to accurate information. They expressed their relief at having regular contact with one person who understood their circumstances and could navigate the various health and support systems, to enable support at home.

The Plug-In produced the *Key Insights – Qualitative Review and client input on out-of-hospital outreach services Report*, detailing the results from the interviews, for the STAAR-SA Project. In addition, COTA SA developed a video about the overall STAAR-SA project, to facilitate the sharing of key messages from the project with their networks. Both the Key-Insights Report and the video are on the STAAR-SA section of the Health Translation SA website.

Work Package 3: saw the establishment of a Quality Improvement Collaborative (QIC), where clinicians, aged care providers and other cross sectoral stakeholders, came together to learn, share and benchmark outcomes with the goal of increasing the quality of care for older people at times of transition. They formed small teams to test ideas and initiatives using a 'proof of concept' approach. The 'ground up' approach was novel, and the result was improved ownership of the work and local solutions most likely to be acceptable to the respective population. A network manager provided support and connections across services to the QIC members, to help teams progress their projects.

Evaluation of the QIC indicated that coordinating efforts to prevent avoidable admissions through a QIC approach was an effective way of building relationships between services. Data from the evaluation of the QIC participant's experience, also found that the process helped build capacity to lead future quality improvement initiatives and involving health professionals from different contexts proved to be a strength. Participants were able to appreciate problems from other perspectives, build relationships across services and gain access to leaders from external sites. While individual services can address parts of the hospital to home transition process, creating sustainable relationships across services may be more effective in improving quality and preventing readmissions. Further information about the QIC and the outcomes of the evaluation can be found in the following publication, and on the STAAR-SA page of the Health Translation SA website:

- Establishing and evaluating a quality improvement collaborative to address hospital to home transitions for older people. (Laver K, Lynch E, Rupa J, McNamara C, Crotty M, Harvey G, STAAR-SA Study Collaborators. BMJ Open Quality, Feb 2022)

During 2020, some activities of the STAAR-SA project were delayed due to the impact of COVID-19 and this provided an opportunity to undertake a qualitative sub-project, as part of Work Package 3. The main aims of this study were to:

- gather the perspectives of health care professionals about what was working well in relation to transitional care and what are some of the challenges
- gain insight into how changes implemented during the unique time of COVID-19, impacted transitional care from hospital to home
- collect feedback on the potential value and feasibility of the risk profiling tools being developed in Work Package 1.

Members of the STAAR-SA Project Team

Interviews were undertaken with health care professionals from across acute, post-acute, primary, community and aged care settings in SA. Participants reported that navigating relevant service provision could be difficult and this was compounded by different funding models across sectors. The need for good communication between services and sectors was highlighted. Participants also commented on the number of short-term initiatives and that successful programs were not always maintained. Further details can be found in the following publication:

- A 'plethora of services' but a lack of consistency: A qualitative study of service providers' perspectives about transitioning from hospital to home for older South Australians. (Rupa J, Laver K, Harvey G, McNamara C, Crotty M, Lynch E. Australasian Journal of Ageing. May 2022)

Next Steps

The STAAR-SA project continues to experience good engagement from our state-wide stakeholder group and QIC participants and some members are involved in other aligned projects. The network and relationships developed through the STAAR-SA project have been highly valued and a very important component of the project. It has provided a unique opportunity for a wide range stakeholders, including the aged care sector, clinicians, consumers , peak bodies and senior managers, to work with experienced translational researchers to improve transitional care for older South Australians.

There will be opportunities to build upon the STAAR-SA work and continue the network and partnerships through two recent successful MRFF grant submissions, particularly in relation to models of care. The STAAR-SA Project Team is keen to keep connected and continue to collaborate with the STAAR-SA network and stakeholders in future activities.

The STAAR-SA Project Team is meeting later in the year to plan and develop the next stages of this work and continue to build upon the learnings from the STAAR-SA project. Further information about the next steps and continuation of the STAAR-SA network will be provided following that meeting.

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