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The 'Primary-Acute Care Interface' was identified by Health Translation SA's (HTSA) Board of Partners as a strategic priority for the MRFF Rapid Applied Research Translation (RART) Round 3 funding for SA in 2019. During the development and consultation for this round, which included a series of Roundtable discussions with health services, clinicians, researchers and consumers, it was confirmed that 'Continuity of Care' across this interface was a major health system issue. It was also clear that leveraging current digital health initiatives and health service reform to improve entry and exit from acute care and access to quality care in the community setting was regarded as essential.

Despite this broad vision most of the proposals submitted for this priority area during the RART Round 3 process offered projects that had limited potential to scale up or were niche digital solutions in specific clinical areas. While investment in these small-scale ventures may have yielded results, the HTSA Board of Partners agreed to use funding from RART Round 3 to progress a project exploring system wide data solutions to support continuity of care across the primary-acute care interface.

This draft Background Briefing document provides an overview of a proposed project to better use the rich supply of primary, acute and sub-acute care data that is available in South Australia to inform planning, delivery and evaluation of health care services and improve patient outcomes. This fits into the philosophy of a Learning Health System approach which underpins the vision of Health Translation SA.



Background

Continuity of Care

Continuity of care describes 'the effective coordination and smooth progression of care over time as viewed from the perspective of the patient*11. It is the 'degree to which patients experience care over time as coherent and linked'4.

Continuity of care is important, as it improves patient experiences and satisfaction, increases treatment adherence and ultimately improves patient outcomes¹⁶⁻¹⁸. Enhanced continuity also supports the early diagnosis of chronic diseases and decreased hospitalisations^{12,14}.

Continuity of care is multifaceted, consisting of three interrelated types of continuity:

- 1. relational continuity (an ongoing therapeutic relationship between a patient and one or more providers),
- 2. informational continuity (provision and use of information on past events and personal circumstances to make current care appropriate for each individual), and
- 3. managerial continuity (consistent and coherent approach to the management of a health condition that is responsive to a patient's changing needs)1,4,13.

Australia has an ageing population and growing numbers of people with multiple chronic diseases requiring complex management. This is set against the backdrop of rapidly advancing medical knowledge and treatment options, and specialised care. Contemporary healthcare is therefore necessarily provided by a broad medical 'community' or 'village'19. Patients are required to see an increasing number of providers in multiple setting, including primary and acute care providers. Achieving continuity of care in this context is difficult and the timely flow of accurate information among the medical community is paramount to quality care and the community's expectations of continuity.

Continuity of care across the interface of primary and acute care - particularly on referral to and discharge from hospital, is critical. Discontinuity in care during transitions across this interface carries a higher risk of preventable adverse events, such as hospitalisations or death^{5-10,14-15}.

For example, changes to medications following discharge are associated with increased emergency department visits, readmissions, and even disabilities or death⁶⁻⁸.

Continuity of care has been recognised as a long term and significant problem in South Australia. Vital information and time are lost, and patients' outcomes are being compromised at several points within the system, including when they are being admitted to a hospital or during clinical handover when patients discharged from hospital. This is a system failure and is not the fault of individuals.

Enhancing continuity of care across this interface requires a wide variety of influencing factors to be addressed, such as (but not limited to) funding incentives, models of care, training and infrastructure supports. There is no single solution. However, one critical aspect underpinning continuity of care is the provision of timely and accurate information regarding the patient, and the communication and flow of this information across this interface⁵.

South Australia needs to focus on system solutions that prioritise the continuity of the patient journey through the primary and acute care transitions. If a digital solution that provides informational continuity of care is not developed during this rapid rise of technological advancement in all other industries, quality patient care will increasingly become more difficult to provide. Provision of information continuity will not only enhance the ability of primary and acute care clinicians to provide quality care at these transition points, but will also enable the health system, researchers and service providers to identify and address gaps and barriers to quality care provision and reduce unwarranted variation in care. Ultimately informational continuity will assist in the development of evidence-based healthcare improvements and a learning health system.

"I end up having to check everything they are going to give me....if they want to stick me on antibiotics and things like this, I'm going to have to tell them I've got a renal problem....because otherwise they will give me the wrong ones. I've got to watch everything they are doing" 13

"The doctor sent a letter to my GP saying that I had my operation done but nothing else. There is a huge gap, not much follow-up. I have been left to my own devices a lot" ²⁰.

Existing Strengths, Assets and Activities

Importantly South Australia has a range of key data strengths, assets and activities that can be harnessed to create a visionary project and position us as a national leader.

This includes activities taking place within the health system that take advantage of the rich state data assets in OASIS, State Pathology Services and the Electronic Medical Record (EMR) and Patient Administration System (EPAS). These are being led by Digital Health SA with the support of the Commission of Excellence and Innovation in Health (CEIH).

Wellbeing SA also house many relevant data assets that, combined with primary care data assets and national datasets, could create something exceptional.

Similarly, the experience and scope of the Registry of Senior Australians (ROSA) based at SAHMRI, a flagship project of HTSA, could be used to inform this project. There is also significant knowledge and experience embedded within SA-NT Datalink.

Role of HTSA

HTSA is well positioned with the SA research, academic and health service delivery sectors to provide the leadership, coordination and collaboration required to work with key stakeholders to progress a system wide, transformational piece of digital infrastructure to support continuity of care across the primary-acute care interface.

One of the core strengths of HTSA is the involvement of key stakeholders in both the primary and acute care sectors: including our partners Adelaide Primary Health Network (PHN), Country SA PHN and the Aboriginal Health Council of SA, and SA Health.

Importantly HTSA, in collaboration with the Commission on Excellence and Innovation in Health, is coordinating the HTSA Health Analytics Research Collaborative (HARC) which brings together members of the research community, including clinical researchers, registry analysts and data scientists, to boost collaboration and further develop the data analytic capacity in South Australia. https://healthtranslationsa.org.au/our-work/platforms/health-analytics-research-collaborative/

Additionally, HTSA, through its national networks with the Australian Health Research Alliance (AHRA), has links to leading-edge projects in several states of Australia which can also be used to inform this project. This includes projects in Victoria (Grhanite & Outcome Health) and projects in NSW (LUMOS)

Further information

https://www.grhanite.com/about/background.html

https://www.health.nsw.gov.au/lumos/Pages/default.aspx

https://outcomehealth.org.au/index.aspx

Project

Aim

The aim of the project is to better use the rich supply of healthcare data in South Australia to improve continuity of care across the primary/ acute care interface. That is, supporting the timely access and linkages between the acute and primary care sectors, and the subsequent transfer of important patient information.

Proposed Activities and Timeline

It was agreed that a HTSA Board Working Group consisting of HTSA staff and 2 Board representatives would oversee and provide guidance to the project (*HTSA Board of Partners meeting, 3 June 2020*).

It is proposed that the project will have a series of phases over the next two years with a required completion date of June 2022.

Objectives

- To scope and understand current issues and barriers to continuity of care across the acute/ primary interface
- To determine the role data currently plays in continuity of care and identify opportunities to leverage the data strengths/expertise in SA to enhance continuity of care
- Depending upon the above, scope potential digital solutions to address the identified opportunities
- 4. Develop a pilot solution.

Funding

Funding of \$250,000 is allocated to the Primary-Acute Care Health Services Interface Data project from the MRFF RART Round 3 (2020-2021).

Phase	Activity	Timeframe
Phase 1	Establishing the Team - Establish project steering committee to oversee and guide the project - Establish Project Team	August 2020
Phase 2	Situational Analysis Conduct a situational analysis seeking the following information: - relevant datasets (and barriers/enablers of use) - key people able to inform the project - current relevant projects (scope and limitations)	Sep-Oct 2020
	This will be achieved via: a) stakeholder interviews (snowballing recruitment) b) consumer focus groups (commissioned piece)	

Phase	Activity	Timeframe
Phase 3	Solution Scoping & Identification	Nov - Dec 2020
	Undertake a detailed scoping of potential approaches and solutions:	
	Stakeholder Forum to discuss:	
	 Present consumer perspective Present clinical perspective Situational analysis findings Showcase relevant projects Workshop potential approaches to solution development In consultation with key stakeholders a preferred solution and approach is selected 	
Phase 4	Solution Development	Jan - Mar 2021
Phase 5	Solution Piloting	Mar 2021 - June 2022

About Health Translation SA

Health Translation SA (HTSA) is a National Health and Medical Research Foundation (NHMRC) accredited Academic Health Research Translation Centre (AHRTC) that aims to address the needs of the entire South Australian population. We provide a focal point for a state-wide collaborative, cross-sectoral approach to research and the translation of evidence into patient care.

Our role at HTSA is to accelerate the creation and translation of new evidence that is responsive to

health service and community priorities. Through our partnership, that unites nine academic, research and healthcare agencies, we enable meaningful collaboration between universities, health services, education providers and the community to deliver research and health care benefits for the community. We seek improved patient outcomes, tangible research outputs based around impact, health system improvements and collaborations with industry.



















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