Health Translation SA
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Establishing a Mental Health Registry

What is the challenge?

When people with a serious mental illness are living in the community (outside of clinical settings) and in the early, 'prodromal' phase of illness (i.e. before symptoms are fully recognised), the risk of relapse and need for rehospitalisation is often missed. There is a need to enable those with mental illness, their families and care providers to better identify when a timely link to a health care provider could be initiated to supportively manage the condition. It is clear that better systems are needed for early, preventive care to enable better short-term and long-term outcomes.

About this research translation project

This project will provide insight into how technology can be used to transform the way current healthcare is provided to people with a mental illness. It will investigate the feasibility and potential benefits of two digital applications developed by the team, for analysing hospitalisation risk and improving psychosocial outcomes.

The first digital application, **AI-Squared (AI²)** aims to use linked data from My Health Records to alert care providers "just-in-time". Multidisciplinary healthcare generates large volumes of data from various locations and stakeholders (e.g. hospitals, medical clinics, health funds, pharmacists). The data linkage system (AI²) bridges the gaps between state-level and federal-level information systems, offering a central solution to this ongoing challenge and providing potential benefits to specialists, GPs, allied health, pharmacists, hospitals, day clinics, patients and their families, payers (Medicare, health funds), employers, industry, research and policy organisations and to communities generally. AI² will use linked data to initiate flags to health care providers when medical visits, medications or other monitored activities have been overlooked by the consumer to enable follow-up contact to be made and appropriate care provided.

The second digital application is the development of a smartphone app that flags when a person with mental illness changes a "usual" pattern of behaviour which makes them more at risk of a serious episode. Smart phone technologies will be enabled to notice the user's behavioural changes which will be used to trigger a flag.

Consumers are at the core of a person-centred mental health system. Both projects are built on the principles of collaborative partnerships, co-design, implementation and delivery, evaluation and feedback. Engagement strategies are in place to engage with consumers, carers and communities in both Adelaide and country SA.

What was the impact?

This project enabled us to run a small scale pilot of the AI² application in multiple metropolitan and community mental health services within SA, and we have established that it is a feasible approach to support community mental healthcare professionals monitor and manage patients with severe mental illnesses. Specifically, the pilot study has led to the development of an optimal implementation strategy for large-scale system integration through both the validation and refinement of the AI² algorithms, and through an investigation of the usefulness and acceptability of the application by consumers and healthcare professionals.

More broadly, this project has enabled us to collaboratively co-design an 'alert system' that can assist in the delivery of personalised treatment strategies and interventional pathways for people with serious mental illnesses during both prodromal and critical phases of mental illness.

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