

# KEY DISSEMINATION LEARNINGS FROM AN INNOVATIVE, VALUE-BASED EMERGENCY DEPARTMENT PREVENTION PROGRAM

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## **PROBLEM**

The Caboolture and Redcliffe regions of North Brisbane have experienced rapid population growth in recent years, with high levels of emergency department (ED) use, an ageing population, and a high proportion of complex health and psychosocial needs.

# **INTERVENTION/APPROACH:**

An innovative intervention was co-designed to reduce unnecessary emergency department (ED) presentations by those with chronic complex conditions in the selected regions (Caboolture and Redcliffe). Local general practices (GPs) were approached to participate in the program, now titled the 'Care Collective,' and provided with a funding package to build the capacity of the practice to employ an existing practice nurse or utilise a contracted nurse to upskill in a coordination role. The nurses, titled Complex Care Coordinators (CCCs), connect eligible clients with existing services in the community, aiming to improve patient quality of life, health literacy, and ability to self-manage their condition; in turn reducing unnecessary ED presentations and hospital admissions. The program has been funded by the Department of Health and Aged Care Primary Pilots Program.

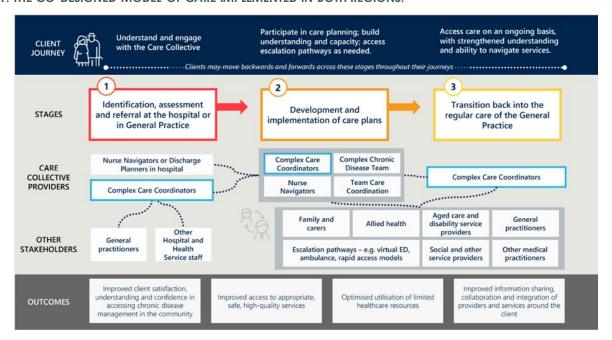
# **CCCS SPEND SIGNIFICANT TIME:**

- Increasing clients' health literacy and understanding of their chronic conditions.
- Ensuring community-based services pick up all outgoing referrals.
- Regularly communicating with clients to avoid missed opportunities.

This comprehensive support helps clients set health goals and move towards self-managing their chronic conditions. The program dissemination was implemented in two distinct phases – a pilot phase, implemented in Caboolture and a second phase, implemented in both Caboolture and Redcliffe regions (North of Brisbane, Queensland), and aligned with Rogers Theory of Diffusion of Innovations [1]. In line with the well-known challenge of converting effective, patient benefitting innovations into widely implemented programs (Dixon-Woods et al, [2] and Horton et al, [3]), we aimed to share key learnings accumulated over 24 months of implementation 1 to support potential further diffusion of the intervention in a context-specific manner. Consent to collect and share deidentified data was gained from all practices and clients involved in the program.

<sup>&</sup>lt;sup>1</sup> Implementation is used throughout to mean "the constellation of processes intended to get an intervention into use within an organization" as in Rabin et al (4).

FIGURE 1: THE CO-DESIGNED MODEL OF CARE IMPLEMENTED IN BOTH REGIONS.



# **LEARNINGS**

Throughout implementation of the program, several key learning opportunities emerged.

## THESE INCLUDED:

## **Data sharing**

- During the pilot phase of the program, activity data was collected by each CCC. Due to funding constraints allowing only a small number of practices to participate, the decision was made to collect only baseline deidentified data using a simplistic data collection method. An existing data-sharing agreement between Brisbane North PHN and Metro North Hospital and Health Service allowed the secure data sharing of some patient information, for evaluation of the pilot.
- In the second phase of the program, data collection was enhanced and a Statistical Linkage Key introduced (SLK-581 [5]) to enable the 'matching' of deidentified data from CCCs and ED data from Redcliffe and Caboolture hospitals. This created a robust set of integrated data, allowing for the tracking of clients through the health system and an understanding of the efficacy of the program.
- Future studies may wish to consider longitudinal impacts of the intervention, as these were not considered in program evaluations to date.

#### Introduction of a new role

- Developing a strong value proposition for practices was key to identifying the program's benefits to clients, the workforce, and the wider system. Financial incentives supported initial registration but had less impact on sustaining ongoing change management.
- Practices most likely to adopt the initiative were classified as Innovators or Early Adopters [1], who understood the program's relative advantage and often became Change Agents within their organisations. Tailoring communication strategies to these groups facilitated effective implementation.

## **Funding Structure**

• The program's funding structure represents a significant shift toward value-based healthcare, signalling a transformative change for general practice. However, the financial return on investment is currently most evident at the tertiary level. Therefore, convincing general practices to engage with the program can be challenging, particularly given their focus on financial sustainability in a demanding economic environment and their preference for the predictability of existing systems.

# Identifying prospective clients

 Initially it seemed logical to identify frequent ED presenters within the ED itself and then refer them to the program through the relevant general practice (GP). This was the original implementation method.

- However, it soon became apparent that the program's limited scope—both in terms of targeted conditions and participating GP practices—posed significant challenges for ED staff. As a result, they continued to refer patients to an existing service, Team Care Coordination (TCC), which was part of the Care Collective program, due to established referral processes from an earlier pilot phase. The lack of a dedicated staff member or allocated time in the ED for managing referrals meant that both retrospective data analysis and real-time referrals were not effectively implemented throughout the program's duration.
- General practices focused on proactively identifying eligible clients. Although the ED referral pathway directly to GPs was ineffective, the Care Coordination Centres (CCCs) continued to proactively enrol clients and coordinate with TCC for mutual clients referred via the hospital. It remains unclear whether the shift from clients who had already made multiple unnecessary presentations to those at risk of making such presentations significantly impacted the program's outcomes. Future implementations should prioritise fidelity to program aims rather than adhering to a prescribed model.

# **Digital Capability**

Interoperability remains a goal in the Australian healthcare system. While The Health Provider Portal ('The Viewer') is integrated into tertiary care, there is limited understanding of the varying access levels for external providers, such as GPs and CCCs. Efforts are needed to align understandings of the different information visible to providers.

## Communication and Collaboration

- design prioritised The program enhancing communication and collaboration between providers, as identified by stakeholders during the co-design phase. However, disrupting the status quo proved challenging in practice. Stakeholder interviews highlighted various reasons for this - including mismatched availability, clinical documentation requirements, and difficulty in maintaining current contact details.
- Sending information via the Health Provider Portal proved to require a change in process for many providers, with post and faxes still being utilised for sharing of patient information.
- Providers generally preferred sending written referrals, which could be tracked within their clinical software.

over making direct contact with another clinician and documenting the conversation. These preferences act as a limiting factor in the shared care approach.

# **IMPACT FOR PRACTICE:**

Value based healthcare – The Care Collective program continues, and early evaluations indicate high levels of client and provider satisfaction, as well as high return on investment and lowered unnecessary presentations to EDs in the North Brisbane region. As the Australian healthcare funding landscape shifts towards value-based and away from activity based, innovative programs such as the Care Collective will be seen more frequently. Program teams should be cognisant of the outlined learnings and how they may apply across the sector.

#### **FUNDING:**

The Care Collective program has been funded by the Department of Health and Aged Care Primary Pilots Program.

## References:

- Rogers EM. Diffusion of Innovations. 5th Ed. New York: Free Press; 2003
- 2. Dixon-Woods M, Leslie M, Tarrant C, Bion J. Explaining Matching Michigan: an ethnographic study of a patient safety program. Implement Sci. [Internet] 2013 25];8:70. [cited 2024 Nov Available https://implementationscience.biomedcentral.com/a rticles/10.1186/1748-5908-8-70 doi: https://doi.org/10.1186/1748-5908-8-70
- Horton TJ, Illingworth JH, Warburton WH. Overcoming 3. challenges in codifying and replicating complex health care interventions. Health Affairs. [Internet] 2018 Feb 1 [cited 2024 Nov 25] ;37(2):191-7. Available from https://www.healthaffairs.org/doi/full/10.1377/hlthaff.2 017.1161
- Rabin BA, Brownson RC, Haire-Joshu D, Kreuter MW, 4. Weaver NL. A glossary for dissemination and implementation research in health. J Public Health Manag Pract. [Internet] 2008 [cited 2024 Nov 20];14: 117-123. Available https://journals.lww.com/jphmp/abstract/2008/03000/ a glossary for dissemination and implementation.7.a spx doi: 10.1097/01.PHH.0000311888.06252.bb
- Australian Institute of Health and Welfare. Metadata Online Registry (METEOR) [Internet]. Canberra: AIHW; 2024 [cited 2024 Nov 25]. Available from https://meteor.aihw.gov.au/content/686241