



Evidence and
Implementation
Summit 2023
9-11 October

Melbourne, Australia & Online



Behavioural and Implementation
Science Interventions
Yong Loo Lin School of Medicine



Centre for
Evidence and
Implementation

www.eisummit.org

[@EISSUMMIT2023](https://twitter.com/EISSUMMIT2023)

[#EIS2023](https://twitter.com/EISSUMMIT2023)

#151 - Adapting implementation approaches for private health contexts: Co-design of a virtual hospital

Presenting Author(s)*

1. Dr Olivia Fisher¹
2. Dr Caroline Grogan¹

Affiliation

Wesley Research Institute

Country of residence

Australia

Objectives/aims

Given the rapid roll-out of virtual health models since 2020, the effectiveness and implementation evidence for existing models is disappointingly patchy and often of poor quality. There is a lack of agreement on a definition of virtual care, and many disparate models being described as “virtual hospitals” or “hospitals in the home.” Designing a new virtual hospital is therefore a challenging exercise and requires a custom-built model based both on this limited existing research, and an understanding of local context.

We aimed to co-design the vision, principles, scope, and initial models of care for a new virtual private hospital that:

- Is based on the best available evidence
- Addresses the needs of consumers, carers, hospital leadership, healthcare professionals, aged care professionals, and public sector health colleagues
- Incorporated robust implementation and evaluation processes throughout the lifespan of the hospital to ensure effectiveness, adaptability and sustainability

Methods

We used an iterative, stakeholder-led, implementation science approach to co-designing the vision, principles, and initial model of care for an Australian private virtual hospital. The Planning and Evaluating Remote Consultation Services framework (PERCS) (1) guided the context assessment and co-design process. A snowball sampling method was used to identify the 32 interview participants



Evidence and
Implementation
Summit 2023
9-11 October

Melbourne, Australia & Online



Behavioural and Implementation
Science Interventions
Yong Loo Lin School of Medicine



Centre for
Evidence and
Implementation

www.eisummit.org

[@EISSUMMIT2023](https://twitter.com/EISSUMMIT2023)

[#EIS2023](https://twitter.com/EISSUMMIT2023)

representing consumers and carers, hospitals, healthcare leadership, residential aged care facilities, community aged care services, and public health services. We conducted a qualitative framework analysis to PERCS using a combined deductive-inductive approach. Hospital acquired complication data from four private hospitals were analysed to determine any shared clinical and demographic characteristics of patients who had experienced a hospital acquired complication. A series of co-design workshops will be held in July and August 2023 to present the context assessment findings, and develop the vision, principles, scope, and models of care.

Main findings

Although we expected that participants would be most interested in the practicalities of the new hospital and how it may impact their work, instead, participants reported that understanding the vision, principles and scope of the new hospital was equally or more important than practical considerations. Insufficient work had been done to define this, and participants felt that this was crucial to the development of the model of care, therefore it became a key focus of later interviews and of the upcoming workshops.

Although assumptions were made in our research design based on existing local and published evidence, our decision to use an iterative process served us well as many of these assumptions were proven to be incorrect, and the virtual hospital model was adapted accordingly. One example was an initial focus on avoidance of unplanned admissions for private patients living in aged care facilities, with the expectation that this older, frail patient group would have a high likelihood of functional decline and hospital acquired complications if admitted to hospital. On investigation, few patients who had experienced a hospital acquired complication at the four physical hospitals during the 2020 calendar year had a residential aged care facility listed as their home address, indicating this was a false assumption, however it is possible that the accuracy of these data is impacted by underreporting.

Using the PERCS framework provided an excellent guide. However, like much of the existing research on both implementation science and virtual health services, the framework is public-health system focused and needed to be adapted to address the complexities of the private system. The lack of focus on funding models in the framework was a notable gap which could be addressed in future iterations.

www.eisummit.org



Evidence and
Implementation
Summit 2023
9-11 October

Melbourne, Australia & Online



Behavioural and Implementation
Science Interventions
Yong Loo Lin School of Medicine



Centre for
Evidence and
Implementation

www.eisummit.org

[@EISSUMMIT2023](https://twitter.com/EISSUMMIT2023)

[#EIS2023](https://twitter.com/EISSUMMIT2023)

This research is allowing us to design, evaluate, adapt and sustain the virtual hospital, while developing high-quality evidence to inform future private virtual hospitals.

References

1. Greenhalgh T, Rosen R, Shaw SE, Byng R, Faulkner S, Finlay T, Grundy E, Husain L, Hughes G, Leone C, Moore L, Papoutsi C, Pope C, Rybczynska-Bunt S, Rushforth A, Wherton J, Wieringa S and Wood GW (2021) Planning and Evaluating Remote Consultation Services: A New Conceptual Framework Incorporating Complexity and Practical Ethics. *Front. Digit. Health* 3:726095. doi: 10.3389/fdgth.2021.726095