



An Investigation Into The Role For A Pervasive Technology Solution To Support Gestational Diabetes Self-Care

Authors: Wickramasinghe, N.^{1,2}, Cole, S.², Kliman, L.² and Goldberg, S.³

Institutions: ¹RMIT University, ²Epworth HealthCare, ³INET Intl. Inc.

Background

Diabetes mellitus [diabetes] is one of the leading chronic diseases affecting Australians and its prevalence continues to rise at an exponential rate with an estimated 275 Australians developing diabetes daily. Early detection and management is essential.

This research contends that a pervasive technology solution might be a prudent strategy to facilitate superior diabetes self-care. Initial focus is on GDM (gestational diabetes) as this subset is typically young, technology savvy & highly motivated.

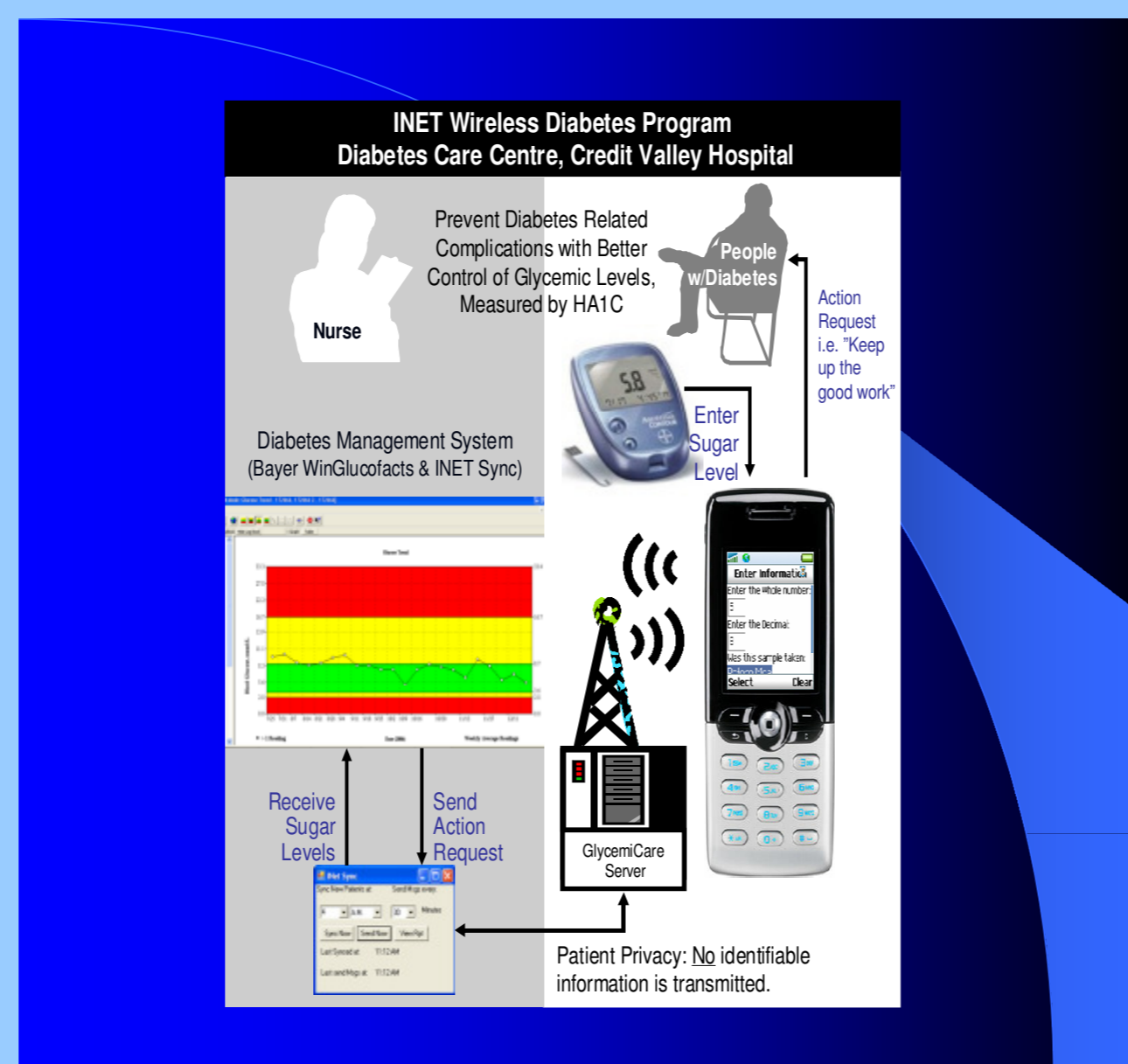
Objective

To investigate the benefits of a pervasive technology to facilitate and enable superior self-care for patients suffering from GDM (gestational diabetes) and to answer the following questions:

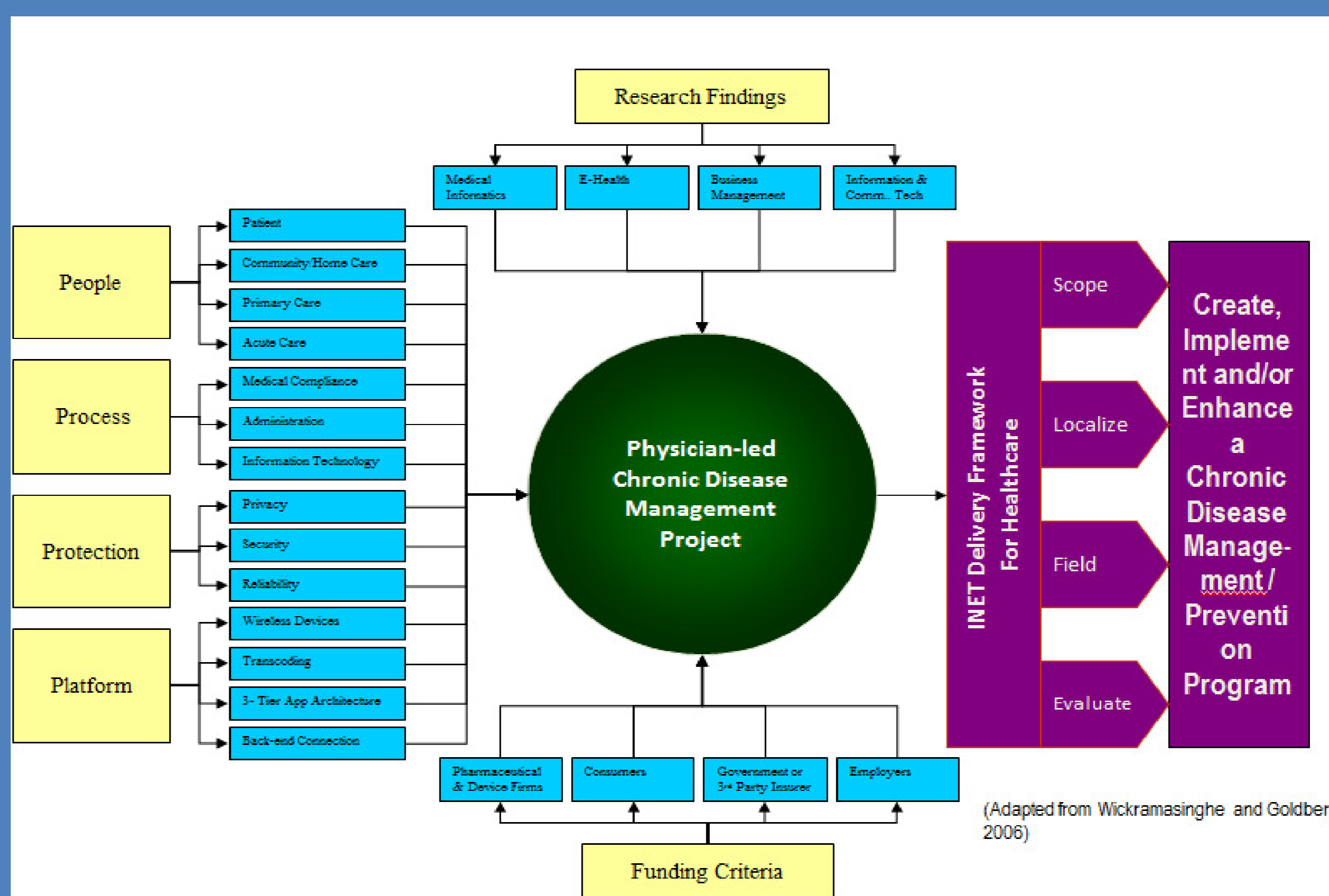
- ❖ Can the INET(technology) solution facilitate superior GDM self-management in an Australian context?
- ❖ What are the benefits and suitability of such a pervasive technology solution to GDM self-care?
- ❖ What are the key barriers and facilitators for the application of a pervasive technology solution to support GDM patient care?

Results

The Solution in a Nutshell



Model



Conclusion

- ❖ A quasi-experimental approach will be adopted employing a two period cross-over clinical trial strategy.
- ❖ Two groups: "Standard care" group and "Technology solution" group will be created.
- ❖ The research subscribes to the established techniques adopted by Wickramasinghe and Goldberg to date; ie the AMR methodology which has been used for all clinical trials to date in Canada and US .

- ❖ Supported by data from clinical studies conducted in North America, the theoretical benefits and proof of concept have been established.
- ❖ The next phase is to test the solution in the context of GDM in an Australian healthcare context. While clinically, no differences exist given the fundamental differences in healthcare systems this is important to establish true pervasiveness.