Background
The translation of healthcare research into practice is challenging and often limited in effectiveness. Only 14% of published research is translated into bedside practice to the benefit of patients, and takes an average time of 17 years to occur. Implementation efforts may be improved by considering theories of human behaviour such as the Theoretical Domains Framework (TDF).

New methods of safely assessing emergency department (ED) patients with possible acute coronary syndrome have been defined in the ADAPT trial (2012) and were implemented as the Accelerated Chest pain Risk Evaluation (ACRE) Project. The ADAPT accelerated diagnostic protocol (ADP) has been implemented in 19 hospitals across Queensland, reducing admission rates to hospital by 13% and decreasing total length of stay by 33% for all patients presenting with possible cardiac chest pain, which represents approximately 6% of all ED presentations.

Aims
To evaluate the ACRE Project in translating the ADAPT-ADP into clinical practice, using the TDF as a tool to determine what factors influenced successful implementation.

Methods
During an approximately 2 year period, from 2014 to 2016, 21 suitable target hospitals (determined by the availability of an on-site pathology laboratory for laboratory-based troponin testing) were engaged on a site-by-site basis, with assistance given to develop a localised pathway and incorporate the ADAPT-ADP into practice. Funding was obtained to allow for the employment of several part-time clinical leads and project officers to drive the roll out of the ADAPT-ADP throughout Queensland.

Whilst a coordinated plan was developed to implement the intervention, the design could be described as one based on ‘intuition’ rather than theory, which can limit the understanding of behaviour change processes that underlie effective interventions. We therefore sought to determine, what factors influenced successful implementation. Why was our project successful when so many others fail?

A 30-item questionnaire targeting clinicians was developed using the TDF as a guide to evaluate implementation success. Questions encompassed ten of the domains of the TDF: Knowledge; Skills; Social/professional role and identity; Beliefs about capabilities; Optimism; Beliefs about consequences; Intentions; Memory, attention and decision processes; Environmental context and resources; and, Social influences.

Results
Participant responses were overwhelmingly positive in response to ACRE Project implementation. Domains with the highest mean responses were Intentions, Knowledge, and Optimism. Domains with the lowest mean responses were Environmental context and resources, and Social influences.

Discussion
Intentions, Knowledge, and Optimism domains had the highest mean responses, suggesting that initial education and awareness strategies around the ACRE Project were effective. Intentions had the highest mean response, and demonstrated high intentions of respondents to both use the ADAPT-ADP pathway, and promote its use and education to other staff. Knowledge of the ACRE Project objectives, supporting evidence behind the pathway, and how the pathway is used in practice was strong. Optimism about the project outcomes, and its sustainability in practice was high, and therefore likely contributed as a positive factor influencing successful implementation.

Conclusion
High mean responses across all domains demonstrated that the implementation strategy was effective. Whilst a lack of variance in the responses hampered us from concluding which factors really drove success, they did match positive outcomes with positive responses and so could be used as a starting point for assessing future translational projects.

References
2. Parsonage W, Ashover S, Milburn T, Skoien W, Cullen L. A large scale implementation of the ADAPT Accelerated Diagnostic Protocol into clinical practice in Queensland: Impact on hospital length of stay and admission rates for possible cardiac chest pain. Accepted for presentation at: Cardiac Society of Australia and New Zealand (CSANZ) Annual Scientific Meeting: August, 2016; Adelaide, Australia.