

Optimising client outcomes and value after motor vehicle accident:

A successful digital approach to outcome and experience measurement for clinicians and clients

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Introduction

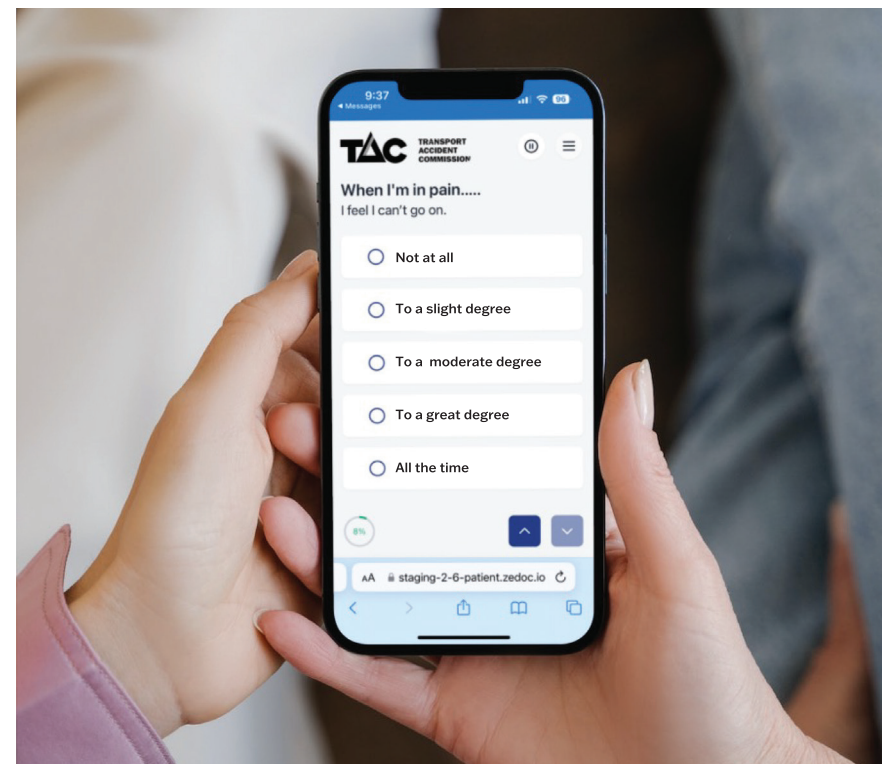
The Transport Accident Commission (TAC) is an Australian state government owned social insurer that plays a crucial role in promoting road safety and supporting those injured in motor vehicle accidents.

Alarming, between 67% and 93% of TAC clients surveyed report experiencing pain in the previous week, with persistent pain often resulting in poor outcomes when risk factors are not addressed early in the recovery journey. While impacting clients negatively, secondary pain and mental health conditions also substantially increase scheme costs.

Recognising the need for a value-based healthcare (VBHC) approach, the TAC is committed to optimising client outcomes and experience with the commencement of pilot programs designed to test VBHC principles. Measuring client outcomes and experience is recognised as essential to VBHC, prompting the TAC to develop and launch the Enhanced Recovery Program (ERP) pilot.

Aim

The ERP was a physiotherapy-led 12-week pilot program designed to enhance client care.



The primary aim of the pilot was to **test the effectiveness of using digital collection of patient-reported outcome and experience measures (PROMs and PREMs) to customise physiotherapy treatment for clients at risk of persistent pain, ultimately enhancing the value of service provision by improving client outcomes and experience.**

Results

23% increase of provider confidence in identifying and managing risk

Overall client outcomes showed an improvement trend

High client and provider satisfaction

Overall risk profile of clients improved

Co-design with clients and providers was a critical component to the program's success, but can be time and resource intensive.

Collaboration and partnership between the TAC and the clinicians during the program optimised success.

Client acceptance and engagement: 72% of clients completed the program and 94% of these completed PROMs at discharge, indicating a high engagement with the process and tools.

Outcome measures used: PROMIS29+ was the most supported PROM by clients and providers.

Client outcomes and experience:

- Most of the PROM domains showed a trend towards improvement, with a general increase in the proportion of clients moving to mild risk and a decrease in moderate and significant risks. Specific improvements were seen in pain intensity and pain interference.
- The PREM data indicated positive client experiences with the outcome measurement, with clients reporting they saw positive impacts on their treatment.

Provider experience and enablement:

- The pilot led to improved provider confidence in identifying and managing client risk of poor outcomes. Providers reported an average 2.4-point increase in confidence levels across the pilot, from 5.9 to 8.2 on a 10-point scale.
- Providers reported that the digital outcome measurement enabled them to confidently discuss sensitive issues, further support needs, and address risks earlier and more effectively.
- Digitally-enabled outcome measurement reduced administration burden, allowing providers to focus on using the data to inform treatment and address risk.

Digital approach:

- While the TAC needs to consider which digital approach is most suitable for longer-term use, ZEDOC's real-time functionality, ease of use for clients and visualisation of PROM data over time was highly valued by clients and clinicians.

“Valuable things the TAC can incorporate into primary care”
Male, provider, Focus Group

“It was worth my time required. Without it, I'd be in a very different place”
Female, client, Focus Group

Method

A key feature of the ERP, including the treatment pathway and outcome measures, was the co-design process which included TAC clients, providers and clinicians.

The collaborative approach led to the development of a comprehensive program that included contemporary pain education, manual therapy and exercise. For digital implementation, the TAC partnered with New Zealand-based company “The Clinician” to employ their platform, **ZEDOC**, for automation of PROM and PREM collection and analysis.

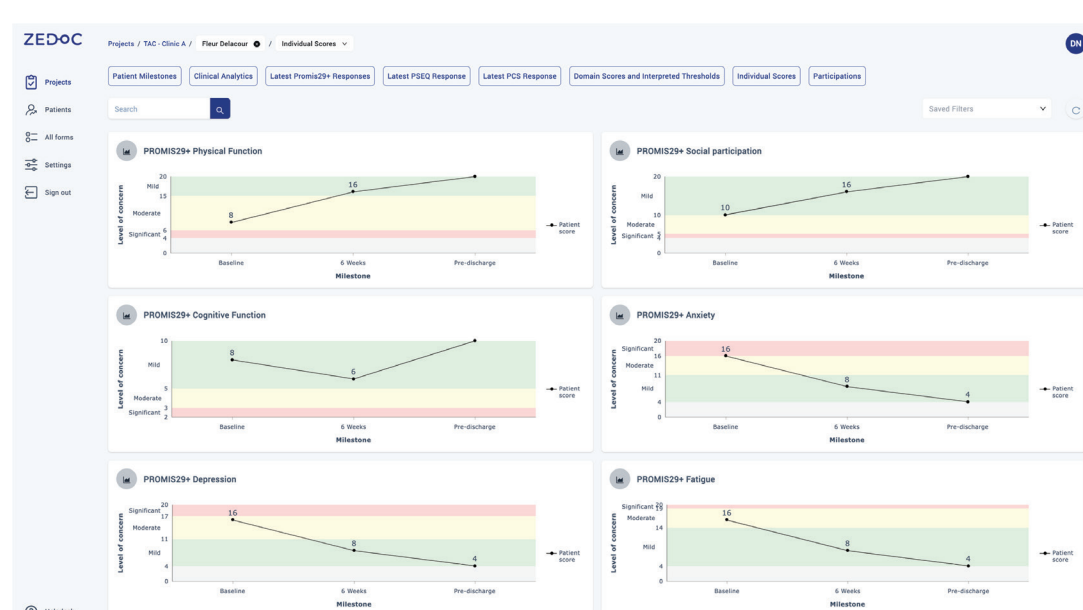
A selection of measures including **PROMIS29+, Pain Catastrophizing Scale (PCS), Pain Efficacy Questionnaire (PSEQ), and EQ-5D** were chosen to trial, along with various PREMs.

The TAC partnered with three physiotherapy groups, trialing the approach with 10 physiotherapists of varying levels of experience. Participants included 87 clients with soft-tissue injury, commencing within 90 days of their accident.

Using ZEDOC's automated functionality, the measures were administered to clients via their personal devices at baseline, week six and week 12 of the program.

The results were analysed in real time and visualised on the platform's digital dashboard, providing physiotherapists with immediate access to the data for review and utilisation in their treatment.

The physiotherapists provided client specific education, resources, and clinical treatments guided by the assessments from the digital enabler tool. This enabled the physiotherapist to tailor the client's treatment and support based on the risks and needs identified from the PROMs. Tailored resources were also available to the physiotherapist on ZEDOC, which were dynamically generated, utilising intelligent business rules to align with the specific client's risks.



Conclusion

The results suggest that a digital outcome measure which enables treatment to be individually tailored is acceptable and effective for TAC clients and providers. Consideration on the future PROMs utilised could include other ICHOM sets, in addition to the EQ-5D. Overall, with strategic enhancements, the program has the potential for broader application and scalability in preventing the development of persistent pain. The TAC now has opportunity to redefine how client outcomes and experience are measured and utilised on a larger scale. This will progress the TAC's maturity towards delivering VBHC, with digital solutions as a key enabler.

