

**Cost-Utility Analysis of Telehealth Collaborative Care Intervention for People with
Chronic Low Back Pain Disorder in Rural Saskatchewan**

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Objective: The objective was to conduct an economic evaluation of telehealth of a nurse practitioner and physiotherapist collaborative model delivered through telehealth videoconferencing, or a physiotherapist travelling from an urban center to provide care to back pain patients in a rural Saskatchewan community compared to usual care delivered by a rural nurse practitioner.

Approach: We performed a cost-utility and DID analysis of a randomized controlled trial. A total of 58 rural-dwelling adults with chronic back pain were allocated to receive either: 1) team-based videoconferencing care; 2) care from a rural nurse practitioner or 3) care from an urban physiotherapist travelling to the rural community. Back pain-related health care and other costs related to back pain management were collected over a six months period following the intervention. The EuroQol EQ-5D-5L was used to calculate quality adjusted health status (QAHS). Difference-in-difference estimation was used to calculate the incremental benefits of interventions. ICER was used to assess the cost-effectiveness of the interventions.

Results: The incremental costs per patients for telehealth (physiotherapy) intervention compared to usual care (nurse practitioner care) is \$59(\$76). Incremental benefits were not statistically significant for the 3 and 6 months follow-up period. This implies that the ICER is infinitely large.

Conclusion: we do not find evidence that telehealth collaborative care for the management of chronic low back pain is cost-effective.