

**USE OF HOSPITAL-RELATED HEALTH CARE AMONG HEALTH LINKS
ENROLLEES IN THE CENTRAL ONTARIO HEALTH REGION: A
PROPENSITY-MATCHED DIFFERENCE-IN-DIFFERENCES STUDY
(PUBLICATION)**



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CONTEXT

Health Links are a new model of providing community-based coordinated health care for patients with complex health and social needs. The program was initiated in December 2012 with 26 early adopter Health Links and 82 were in operation across the province by the end of 2015. Patients enrolled in the program are provided with intensive care coordination, including multidisciplinary care, and a patient-centred coordinated care plan that outlines the patient's needs, goals, providers, treatments and appointments. The goals of the program are to improve access to care, reduce wait times and prevent unnecessary hospital and emergency department (ED) visits.

OBJECTIVES

In this study we examined 1) whether enrolment in Health Links is associated with differences in use of hospital-related services among enrollees after (v. before) enrolment and 2) how these differences in use patterns among enrolled patients compare to trends among patients with similarly complex needs who were not enrolled.

METHODS

We analyzed a registry of Health Links candidates from the Central health region (Central LHIN), linked to health administrative data. We focused on the Central LHIN because it had a single complete patient registry with one data custodian and three 'early adopter' Health Links in operation before 2015. From the registry, we identified all patients who received a Health Links coordinated care plan before January 1, 2015, and used propensity scores to match (1:1) enrollees with similar complex patients, identified from health administrative databases, that did not receive Health Links care (comparators). Enrollees and comparators were matched on socio-demographics, comorbidities, and health care utilization in the past 1-year across multiple sectors. Using a difference-in-differences approach, we evaluated five measures of Health Link performance: rates of hospital admission, ED visits, days in acute care, 30-day readmissions and 7-day post-discharge primary care follow-up.

FINDINGS

Of 334 enrollees identified in the registry, a comparator match was found for 313 (91% of all eligible). The mean age of enrollees was 75.6 (range 23-98) years, 40.3% were men, and enrollees had a predominantly urban residence. For enrollees, use of hospital-related care was comparable after (v. before) program enrolment, except for average days in acute care, which increased. Difference-in-differences analyses revealed greater reductions in hospital admissions, ED visits and acute care days in the comparator (v. enrollee) group.

CONCLUSIONS

Patterns of use of hospital-related care did not decrease among the first enrollees to Health Links in Ontario's Central LHIN. However, this analysis was restricted to enrolment before January 2015 within one health region, and as the Health Links program has evolved and best practices implemented, it is possible that improvements to health outcomes may become evident. The differential patterns we observed between enrollees and comparators may be attributable to other unmeasurable factors. Additional research is therefore needed to confirm these findings in other Ontario jurisdictions with additional follow-up data, as well as to quantify additional important measures of coordinated care, such as patient experience and access to services.

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