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Title

Mapping Patient Access to Care and Quality of Care based on Distance from Family Physician

Priority 1 (Research Category)

Healthcare Services, Delivery, and Financing

Presenters

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Abstract

Context: In Ontario, patients who move increasingly keep their family physician (FP) because no one in their new community is accepting new patients, creating long distances to seek primary care.

Objective: To understand if increasing distances from patients to their FP are associated with changes in healthcare utilization and quality of care.

Study Design: A cross-sectional analysis of patients and FPs in Ontario from April 1, 2021, to March 31, 2023.

Analysis: Drive times and drive distances were derived using ArcGIS. Straight-line distance analyses were completed for the entire study population, and drive times and distances were performed on 10% of the study population.

Dataset: The cohort was identified using the April 2023 Primary Care Population Dataset (PCPOP), an ICES-derived database. The data was linked with other databases, including the Registered Persons

Database (RPDB) for patient postal codes and the Corporate Provider Database (CPDB) for FP postal codes.

Population Studied: Patients of all ages living in urban or suburban (Rurality Index of Ontario 0-39) regions of Ontario and rostered in one of Ontario's Patient Enrolment Models.

Outcome Measures: The primary exposure variables were patients' travel distance and drive time to their FPs. Travel time and drive distance were measured in three ways: 1) straight-line distance between patients and FPs, 2) driving distance along Ontario's road network to FPs, and 3) driving time-based on posted speed limits. Healthcare utilization outcomes included the number of core primary care visits, continuity of care to own group, and emergency department visits. Healthcare quality outcomes included rates of colorectal, breast and cervical cancer screening.

Results: In Ontario, 13% of attached patients lived more than 30 km from their FPs and 3% more than 100 km. Patients who lived farther from their FPs were more likely to have no primary care visits, reduced continuity of care, and more emergency department visits. Patients who lived farther from their FPs had less screening for colorectal cancer screening, breast cancer and cervical cancer.

Conclusions: System support for access to primary care close to home may improve primary care access and continuity, lower the use of emergency departments, and improve preventive healthcare.