

International Journal of Population Data Science

Journal Website: www.ijpds.org



Differences in Health Service Use Before and After Dementia Diagnosis: Rural vs. Urban Matched Cohort Analysis

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Background

Rural–urban differences in health service use among people with dementia are documented, but little is known about how these differences evolve over time, particularly before diagnosis. This study examined annual rural–urban patterns in health service utilization during the five years preceding and following a first dementia diagnosis.

strategies should leverage existing resources and technology to improve access and continuity of care for rural populations living with dementia.

Methods

We conducted a population-based retrospective cohort study using linked administrative health data from Saskatchewan, Canada. Utilization of family physician and specialist visits, hospital admissions, all-type prescription drug dispensations, and short-term institutional care, was tracked annually. The dementia cohort included 2,024 adults aged 65+ diagnosed between 2013 and 2014. The nearest neighbor matching technique was used to construct the control group of 2,024 individuals without dementia based on propensity scores. 1:1 matching was performed using covariates at the time of index date: age, sex, geographic region, urban versus rural residence, and Charlson Comorbidity Index score. Rural–urban differences within dementia and control cohorts were assessed using Z-score tests and t-tests.

Results

Compared to urban counterparts, rural persons with dementia had fewer family physician visits during select pre- and post-diagnosis years and had fewer specialist visits and prescription dispensations across most of the 10-year period ($p < 0.05$). No significant rural–urban differences were observed for hospital or short-term institutional care admissions.

Conclusions

Geographic disparities in physician services and prescription use persist before and after dementia diagnosis. Health system

