Using administrative health data to inform health service planning for specialist cancer care in Nova Scotia, Canada

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Introduction

Research has demonstrated that primary care providers can safely and effectively provide follow-up care after a person has received treatment for cancer. Yet, discharge to primary care after cancer treatment is variable, despite the fact that cancer systems are challenged to provide follow-up care given constrained cancer specialist resources.

Objectives and Approach

To inform cancer system planning, we examined (1) cancer centre routine follow-up (CC-FUP) care for prevalent cancer types and (2) changes in CC-FUP over time. From the Nova Scotia Cancer Registry, we identified all persons diagnosed in Nova Scotia, Canada, with an invasive breast, colorectal, gynecological, or prostate cancer between 01/01/2006 and 31/12/2013. We linked this dataset to cancer centre/clinic data and identified a non-metastatic cancer survivor cohort (n=12,267). Descriptive statistics were computed to describe patterns of care. Negative binomial regression was used to examine changes over time for both CC-FUP and all cancer centre visits, adjusting for other covariates.

Results

Nearly half of survivors (48.4\%) had at least one CC-FUP visit, which varied by disease site (range: 30.2-62.4\%). Variation existed across providers, with six oncologists providing 34.7\% of the CC-FUP visits to the study population. Year of diagnosis was associated with receipt of CC-FUP care, with each successive calendar year associated with an 8\% increase in CC-FUP visits (IRR=1.08, 95\%CI=1.07-1.10). Similarly, each successive calendar year was associated with a 14\% increase in all cancer centre visits (IRR=1.14, 95\%CI=1.13-1.15). Results were shared with cancer system decision-makers at regular intervals to inform ongoing analyses.

Conclusion/Implications

Both the number of CC-FUP visits and all visits increased over time, with the latter at a greater rate. The increases were much higher than assumed by cancer system decision makers (2\% increase per year) for resource planning, demonstrating the value of population-based administrative data to informing health service planning.