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Linking surveillance and administrative data to better understand dementia's impact in Canada

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Introduction

Canadian Institute of Health Information and Public Health Agency of Canada combined analytical work for a dementia report. The report linked surveillance and administrative data to support policy makers, health system planners and public in understanding the prevalence of seniors with dementia and their interactions with the health care system.

Objectives and Approach

Dementia prevalence data from PHAC's Canadian Chronic Disease Surveillance System was used as a denominator, and data from CIHI's administrative databases was used as a numerator to calculate the statistics on interactions of seniors with dementia with the healthcare system.

Examples of the measures reported by database include:

- Using DAD: Proportion of seniors with dementia who were hospitalized;
- Using NACRS: Proportion of seniors with dementia who visited emergency departments;
- Using CCRS: Proportion of seniors with dementia living in and outside of nursing homes;
- Using HCRS: Proportion of seniors with dementia living in the community and receiving home care services.

Results

Results for the measures above, as well as rates of patients receiving different services, statistics on where they live, their characteristics, quality of care by sectors, and impacts on caregivers will be presented.

One out of 5 seniors with dementia is admitted to hospital every year, and one out of four visited emergency departments at least once. Two out of five seniors with dementia reside in long term care. While in nursing homes, seniors with dementia experience more inappropriate antipsychotic and restraint use compared to seniors without dementia. They are especially susceptible to injury and falls. Once hospitalized, they tend

to stay longer waiting for placement and experience greater hospital harm. Caregivers of seniors with dementia experience more distress compared to caregivers of other seniors.

Conclusion/Implications

This work illustrates benefits of combining data from different organizations and sectors to help inform policy and fill data gaps. This innovative approach using PHAC's surveillance and CIHI's administrative data avoids confusion from varying estimates and duplication of work between organizations, generates new evidence, and reaches a broader audience.