

How do we enhance linked administrative data based chronic disease surveillance in Canada? Results of an environmental scan.

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Introduction

The Canadian Chronic Disease Surveillance System (CCDSS) is a collaboration of provincial and territorial surveillance systems which generates estimates of chronic diseases using linked population-level administrative health databases and standard case definitions. We conducted an environmental scan of administrative data validation studies and identified opportunities for CCDSS case definition enhancement.

Objectives and Approach

The purpose of this project is to develop a methodology for and conduct an environmental scan, identifying opportunities for enhancing the CCDSS. This multifaceted approach consists of the following elements: 1) key informant interviews and stakeholder consultations to identify new and existing priority conditions for updating/validating within the CCDSS, and new areas of conceptual and methodological relevance for administrative data disease surveillance, 2) a systematic literature review of PubMed, Ovid and Embase from 2013-2017 using MeSH terms and a librarian peer-reviewed search strategy, and 3) a review of the grey literature.

Results

Key stakeholders identified the following priorities for validation work and/or case definition enhancement: diabetes, mood and anxiety disorders, schizophrenia, obesity, hypertension, chronic obstructive pulmonary disease, osteoarthritis, stroke, early-onset dementia, rheumatoid arthritis and gout. Scientific and grey literature reviews of validation work for these conditions examined the following concepts/methods: 1) evaluating validity of disease-specific case definitions over time, and in different ages, sub-populations and settings, 2) defining in-

cidence versus prevalence using linked administrative data, 3) determining opportunities and constraints of using linked administrative data to conduct surveillance on diseases that are chronic versus episodic in nature and defining active versus lifetime prevalence, and 4) assessing the feasibility of using new sources of data for linkage to enhance case definition validity.

Conclusion/Implications

Utilization of linked administrative databases for chronic disease surveillance has expanded across many jurisdictions since the inception of the CCDSS. As disease estimates generated in this manner are increasingly being relied upon by policy makers working to enhance public health, the methodological opportunities and constraints identified here require consideration.

