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Linkage of Chronic Disease Data from Provincial Sources for Strategic Decision Support and Population Health Surveillance in British Columbia (BC)

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Introduction

BC Ministry of Health (MoH)'s health administrative data holdings for a variety of general health care data are not readily linked with various data registries maintained by specialized care agencies of the Provincial Health Services Authority (PHSA). These provincial data sources have rich chronic disease information for BC residents.

Objectives and Approach

The objective of this project is to develop a system for cross-agency linkage of provincial level chronic disease data to improve chronic disease information that would support the BC's health system, MoH and PHSA agencies in particular, in healthcare delivery and chronic disease prevention planning. We aim to achieve linkage of data from various provincial chronic disease data sources of the MoH and PHSA, with further potential to link with variety of other external databases such as Census data for socio-economic determinants of health. We are reporting here the outcome of the first phase of this project.

Results

The outcomes from the project to date were as follows: Data linkage between the MoH's administrative databases, Chronic Disease Registries (CDRs) in particular and Census based socio-economic status (SES) data was achieved, providing the population level evidence of health outcomes such as health inequity, comorbidities and multimorbidities (sub-project # 1). Preliminary results on data quality and health outcomes by SES will be presented. This was followed by completion of securing approval to ensure data security compliance for data linkages of CDRs with the Provincial Renal Agency's Registry called "PROMIS" (sub-project # 2), Cardiac Services BC's Registry called "HEARTis" (sub-project # 3), and BC Can-

cer Agency's Registry and BC Generations Project data (sub-project # 4), for implementation to answer agency specific research questions.

Conclusion/Implications

This data linkage project to consolidate information from chronic disease and socio-economic databases for providing answers to various analytic questions posed will improve decision support and enhanced population health surveillance. The lessons learned from this multi-agency collaboration and their implications for other jurisdictions will be addressed.

