

Title: Improving information on worker health protection in Ontario: a study based on record linkage (IWH # 1370)

Purpose: There are concerns regarding the reliability of workers' compensation administrative records as a source of surveillance information on the incidence of work-related injury and illness. These concerns center on the integrity of workplace reporting of work-related injury and illness and the lack of information about some groups of workers who are excluded from insurance coverage (self-employed and independent contractors and the majority of the financial services sector). This study has the primary objective of conducting a formal record linkage of emergency department visits for the treatment of work-related injury and illness and workers' compensation claims (both lost-time claims and claims for medical care only).

Description: We will use probabilistic methods to link the workers' compensation claim records from the Ontario Workplace Safety and Insurance Board (WSIB) with emergency room records from the Canadian Institute for Health Information's (CIHI) National Ambulatory Care Reporting System (NACRS) from 2004 to 2016. The databases will be linked using variables common to both administrative data sources: the date of injury, birthdate, sex, and residential postal code of the injured worker. The study investigators have received permission from WSIB and CIHI to conduct the record linkage using person-identifying information, specifically, birthdate and six-digit residential postal code. Following the record linkage, the person-identifying variables will be deleted from the analytic dataset.

The study investigators will use the de-identified linked dataset to address three specific analytical objectives: 1) to identify the factors associated with a divergence in the two administrative data sources following the 2009 recession in Ontario, 2) to improve understanding of geographic differences in trends in the nature of injury and injury events, 3) to improve the detail and quality of nature of injury and injury event information associated with compensation claims for medical care only.

Output: The composite linked records do not contain any identifiable information. Only aggregate data that do not identify any individuals are released from the analysis files through research papers or journal articles. Data will be securely stored as electronic files on a network at the Institute for Work & Health and destroyed after seven years.

Ethical Review: The study proposal was originally reviewed and approved by the Research Ethics Board at the University of Toronto, in February 2018 protocol number: 35733.