Alberta SPOR SUPPORT Unit

Cliff Lindeman

Biography

Cliff Lindeman is a Behavioural Medicine PhD student in the Faculty of Kinesiology, Sport, and Recreation at the University of Alberta. He has a Master's degree in Public Health and an Honour's degree in Kinesiology from Lakehead University. Cliff has held several positions including a practicum with Alberta Health Services Infection Prevention and Control and is currently working with the Primary and Integrated Health Care Innovation SPOR Network at the University of Alberta.

Cliff's doctoral research will analyze Albertan primary care physicians' electronic medical record information to determine if exercise activity inputs are sufficient for health services and epidemiological research, and to develop and compare alternative processes to better record exercise information that may impact the health and well-being of patients.

His interests include patient-oriented and primary health care research, epidemiology, and utilization of administrative data.

Project Summary

Characterizing exercise inputs and practice patterns of Albertan primary health care practitioners

The use of electronic medical records as a source of health information offers an opportunity to conduct surveillance to improve clinical practice and patient outcomes. The Canadian Primary Care Sentinel Surveillance Network (CPCSSN) routinely extracts electronic medical record information across Canada including data from 225 participating primary care providers and more than 250,000 patients in southern Alberta.

CPCSSN extracts an open-text field titled 'exercise'. An exploratory overview of this open-text field found that information was not recorded in a standardized way. Of the more than 95,000 southern

Alberta exercise field entries, the most common was 'yes'. However, this occurred less than 500 times; most entries were unique text strings. If exercise data was incorporated as a validated information field and not random, unusable series of text strings, it may be a powerful resource for primary care providers and researchers to identify exercise behaviour for a variety of chronic conditions presented in primary care.

Natural language processing statistical techniques will group exercise entries through sentiment analysis. A standardized exercise input template in primary care providers' medical records will enable a review of these entries and allow feedback on practice feasibility. To better understand the intentions of recording exercise in electronic medical records, cognitive task analysis will be conducted with primary care physicians. As well, a survey will be conducted of all Canadian medical schools in order to learn the range and focus of exercise prescription training in Canada.