The associations between shift work exposure and selected health outcomes in the Canadian Longitudinal Study of Aging

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Background
We live in a globalized 24-hour society, consuming services, products and entertainment around the clock. As a result, more and more people are working in shifts. Currently, one in every fourth Canadians is working in shifts other than regular daytime hours. At the same time, the number of senior shift workers is growing in most developed countries, including Canada, due to the general aging of the working population. Together with physiological and epidemiological data on the alarming relationships between shift work and various physical, social and mental health outcomes, there is reason to believe that shift work may become a major occupational health problem in the near future.

Study objectives
The specific study objectives are to investigate the associations between shift work exposure and:

1. The variation in age at natural menopause among adult Canadian women
2. The frailty among adult Canadian population
3. The cognitive functions among adult Canadian population

Methods
To meet the above study objectives, secondary data analyses will be performed using the Canadian Longitudinal Study on Aging (CLSA) database, which is a large, Canada wide, longitudinal cohort study of adult development and aging. Participants include more than 50,000 men and women aged 45 to 85 years. Both baseline cohorts (tracking and comprehensive) along with follow-up 1 databases will be utilized to collect information related to shift work exposure and all outcome variables. All covariates that are considered as potential confounders for the relationship of shift work and selected outcomes will be evaluated in the analysis including socio-demographic, lifestyle and health related factors. Longitudinal analysis will be conducted and survey weights will be utilized to account for the complex sampling method as per the guidelines set by CLSA.