OBJECTIVES The LIMS databank stores all occupational exposure measurements collected by public health teams in Quebec. The IMIS databank contains exposure measurements collected by the U.S. Occupational Safety and Health Administration inspectors to verify compliance. We investigated differences/similarities between both databanks.

METHODS Personal exposure measurements from 1994–2011 were abstracted, and industry from both databanks was recoded according to the Canadian Standard Industrial Classification. Logistic regression was used to explore differences between exposure levels in both databanks for 27 chemicals in common industries, taking into account the type of exposure (short-term or long-term), year, and industry. Ratios of the common industries, taking into account the type of exposure between exposure levels in both databanks for 27 chemicals in 1997 and 2008.

RESULTS Our analysis was based on 64,938 LIMS and 53,078 IMIS measurements. Exposure levels were significantly lower in IMIS compared to LIMS for metals (OER estimated in 1997: 0.43 across agents, 95% confidence interval (CI): 0.30–0.62; OER 2008: 0.57, 95% CI: 0.42–0.77), and they became similar in recent years for solvents (OER 1997: 1.47, 95% CI: 0.91–2.38; OER 2008: 0.99, 95% CI: 0.58–1.69). Short-term exposure levels were on average 3 times higher than long-term ones across the two databanks. Results were unchanged when industry from both databanks was recoded according to the U.S Standard Industrial Classification or the North American Industry Classification System.

CONCLUSIONS Differences between exposure levels in the two databanks may reflect distinct sampling strategies or prevention policies between the two countries.

Poster Presentation

Musculoskeletal

DETERMINANTS OF MODIFIED WORK AS PART OF THE RETURN-TO-WORK PROCESS FOR INJURED WORKERS WITH MUSCULOSKELETAL INJURIES IN BRITISH COLUMBIA, CANADA

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INTRODUCTION The longer an injured worker is off work the less likely they are to return to work and modified work is associated with shorter recovery durations. However, low rates of modified work have been found in Canadian compensation jurisdictions. This study investigated the determinants of modified work among workers with musculoskeletal injury compensation claims in British Columbia.

METHODS Three cohorts of injured workers were identified from compensation claims for back strain, limb fractures and connective tissue injuries. The effect of age, sex, occupation, wage quintile and prior claim on at least one modified day (yes/no) within the first four weeks of claim was analysed using Poisson regression.

RESULTS In multivariable models, female gender was associated with an increased likelihood of modified work (back strains: IRR 1.15 [95%CI 1.06, 1.25]; limb fractures: 1.22 [0.91, 1.64]; connective tissue injuries: 1.14 [0.85, 1.52]), while older age (e.g. 55 to 65 years) was associated with a decreased likelihood (back strains: IRR 0.69 [95%CI 0.63, 0.76]; limb fractures; connective tissue injuries: 0.59 [0.43, 0.81]). Higher income was associated with an increased likelihood of modified work for limb fractures (highest quintile: IRR 1.84 [1.27, 2.67]). The effect of occupation was variable on modified work by injury type.

DISCUSSION Unmeasured injury severity may have resulted in residual confounding of disability duration by gender and age. The offer of modified work may be dependent on occupation and the flexibility of higher paying occupations. The overall low rate of modified work for musculoskeletal injuries (<30%) warrants further investigation.