



Department of Epidemiology, Biostatistics & Occupational Health

Biostatistics Seminars

Winter 2010

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*A likelihood adjustment for the combined problem of missing data and measurement error.*

Tuesday, 9 February, 2010

4:00 pm - 5:00 pm

Purvis Hall, 1020 Pine Ave. West, Room 24

ALL ARE WELCOME

**Abstract:**

Observational studies predicated on the secondary use of data acquired from administrative and health databases need to address analytic problems at various stages of data analysis. These problems become exacerbated when a research dataset is constructed from potentially disparate data sources. One such problem, arising naturally within a raw covariate or resulting from covariate construction, concerns covariates which suffer from the dual problem of missing information and measurement error. In this talk, we will investigate the impact of such imperfection on parameter estimation and consider the properties of a likelihood-based estimator designed to account for such imperfections. This methodology will be applied to a linked dataset composed of the British Columbia Cancer Registry, British Columbia Vital Statistics, and Statistics Canada Census (1996, 2001, 2006) as an example of how low cost data can be used to refine the collection of high cost data.