Reviewer's report

Title: Prevalence of smoking during pregnancy and associated risk factors among Canadian women: A national survey

Version: 3 Date: 2 March 2010

Reviewer: Luc van Lonkhuijzen

Reviewer's report:

1. Methods:
The authors wrote: Participants eligible for the study were women aged 15 years and above, who had singleton live births between the period of February 15, 2006 and May, 2006 in the provinces of Canada and between November 1, 2005 and February 1, 2006 in the territories of Canada and who lived with their baby at the time of data collection. A total of 8,542 Canadian women were randomly selected from the 2006 Canadian Census of Population.

However according to the MES report it was not a random sample but a stratified random sample. Sampling frame was not the complete sensus population but a sampling frame based on recent births within the sensus population. The MES report describes it as follows:

A stratified random sample of 8,542 women was selected without replacement, using recent births drawn from a Census-based sampling frame.

Please revise.

2. I commented on the modelling with variable selection based on univariate screening.

I maintain that this method is not valid. In Harrell F.E. Regression Modeling Strategies With Applications to Linear Models, Logistic Regression, and Survival Analysis, Springer 2001 chapter 4, it is phrased as follows:

“Many papers claim that there were insufficient data to allow for multivariate modeling so they did “univariable screening” wherein only “significant” variables were entered into the model. This is thus even worse than forward stepwise modeling as it can miss important variables that are only important after adjusting for other variables.”

However I do realise that one might be more or less strict in applying this rule and that I probably belong to the “strict” group. I’ll leave the decision to the authors.

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests