Reviewer's report

Title: Prevalence of health-risk behaviours among Canadian post-secondary students: Descriptive results from the National College Health Assessment

Version: 1 Date: 14 November 2012

Reviewer: Katherine Lust

Reviewer's report:

Major Compulsory Revisions:

1. Unfortunately it was difficult to evaluate this manuscript as there appears to be no section addressing the statistical analysis used to explore the differences in prevalence rates between large and small post-secondary institutions. I am suspecting that the analysis involved the use of Chi-square analysis. If Chi-square analysis is the analysis that was used it will be an inadequate analysis. Factors such as age and gender of students enrolled within a particular institution would also need to be considered, as there is substantial evidence that shows differences in health-related behaviors vary by age and gender.

2. It is unclear to me why you are estimating a response rate. Are you basing your manuscript from other reports and therefore just using the reported prevalence rates but do not have access to the raw data? If that is true, than you need to be clear around this fact. In addition, it would seem quite feasible to contact the school and find out how many surveys were sent out and returned and calculate the overall response rate based on that information.

3. In the discussion section you make the following statement: Institutions of similar student populations demonstrated differences in the prevalence rates for all measured....Speculatively, these health-risk behavior disparities may be indicative of discrepancies in health-promotion efforts...across post-secondary institutions. Given you have no information regarding the type of statistical analysis you performed I found this to be quite a drastic statement. Even speculation needs some bases for the speculation.

4. Within the results section you make the following statement: Both measures of physical activity and fruit and vegetable intake most likely underestimate the actual prevalence of not meeting current physical activity or fruit and vegetable intake guidelines. It is unclear to me the intent of this statement. Are you saying... based on the guidelines provided in the reference cited the prevalence rates reported are lower or are you making a statement that you believe the reported prevalence rates are in reality actually lower than what was reported among the student populations. If you are making the last statement you will need to support why you believe that to be true.

4. Even though you state in the discussion section one of the limitations of the study is that a random sample of 10% of the populations could result in non-response bias I am also concerned that 10% random sample of a small
institution results an even more potential for the sample to not be representative of the student population enrolled.

Minor Essential Revisions:
1. There is inconsistency in the description of the binge drinking rate measure in the measures section and how you refer to that variable later in the manuscript. I believe you would want the measure descriptor to state binge drinking in the past two weeks versus what is stated as the past 15 days.
2. I believe there is a typo in the inadequate sleep description in the measures section; having sufficiently enough sleep on most nights of the week should be >4 not >=4.

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.