Article details: 2016-0044	
Title	**Cancer Incidence attributable to inadequate physical activity in Alberta, Canada in 2012**
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Reviewer 1	Dr. Jeffrey A Bakal
Institution	Canadian VIGOUR Centre University of Alberta Edmonton, Alta.
General comments (author response in bold)	Overall I think the authors have presented an interesting analysis of the CCHS and Cancer registry data. A few specific comments. 1. It would be good to update the references as most are quite dated and would be good to have a current understanding of the state of this topic. We have updated references in the introduction and interpretation sections. 2. In the introduction, the manuscript mentions being the fourth paper on this, with only a single (under review) reference. [Editor's note: please delete mention of the paper number in the series.] **This change has been made. Please see #12 of the editor's comments.** 3. Minor point to make sure that all the CI's are properly and similarly noted. **All CIs are now presented consistently.** 4. Similarly, at the end of the introduction, there is mention of previous estimates with no reference. **References have been added (page 3, starting on line 21).** 5. Reference for the PAR **A reference for the PAR method has been added to the methods section, page 6, line 12.** 6. In the results, there are statements made which are very difficult to pull from the tables. **We went through the results and ensured that all numbers could be pulled from the tables.** 7. There also appear to be newly stated results in the interpretation section. **[Editor's note: all results must first be presented in the results section.]** **Changes have been made so that all results presented in the interpretation section are first presented in the results section.**
Reviewer 2	Dr. Jean-Pierre Pellerin
Institution	Centre Hospitalier de Verdun, Unité de médecine familiale, Verdun, Que.
General comments (author response in bold)	This is an observational study that establishes a link between the poor physical activity and the probability to develop a cancer as lung cancer, colorectum cancer, prostate cancer in men and breast cancer, ovary cancer or endometrium cancer in women. Among several causes or risks of cancer, ages and lifestyle (including practice of physical activity and feeding habits) are probably the most prominent. The authors show that inadequate physical activity is one of the risk factors. 1. In table 1, the relative risk for the in the first section 'ALL', source Tardon, 2005 is exactly the same as those in the section 'Endometrium, source Cust, 2011. Is this an error? **The relative risks being exactly the same is simply a coincidence.** 2. In table 2, which gives the prevalence, it is impossible to find the same numbers reported in lines 13 to 18, page 8. **An overall estimate not reflected in Table 2 has been removed. The remaining prevalence estimates presented in the results section (Page 8, lines 4-6) directly reflect the percentages presented in Table 2 in the 'Total' row.** 3. Confidence Intervals stay small that's means least variability. 4. Page 8, lines 30 to 32: You said table 2 report numbers and proportions of cancer. But the title of table 2 (page 19) is Prevalence of inadequate physical activity in Alberta, 2003. Can you explain this? **The text should have referred to Table 3. This change has been made.** 5. Page 10, line 39: Overall, ...associated sits (sites??) **This change has been made.** 6. I have verified the calculation in tables 3 and 4 and except for some decimals everything seems to be correct. **Thank you.** 7. The question that remains is: a. Did you compare with the probability of cancers for people that doing adequate physical activity in Alberta? Do you have an idea, for comparison? **No, we did not compare the number of cancer cases in those who are physically active to those who are inactive. For the purposes of this study, we were only interested in the population attributable risks and number of incident cancer cases that could be avoided with changes in physical activity.** b. And how do you explain the large difference in the probability of cancer between men and women? Is this related to the specific type of cancer. The latency period is this the same for women and men? Are women more inactive than men or for a longer duration? **The difference in the overall population attributable risk estimates between men and women is due to 3 female-specific cancers (breast, ovarian and endometrial) being associated with inadequate physical activity. Therefore, a higher percentage of cancers in women could be attributable to inadequate physical activity. As shown in Table 4, the percent estimates for cancers present in both men and women (colorectal and lung) are very similar for men and women. A sentence has been added to the first paragraph of the interpretation section to explain this difference.** With regard to the question about latency periods, please refer to the response for editor query #22.

	Reference 1. Brenner DR. Cancer incidence due to excess body weight and leisure-time physical inactivity in Canada: Implications for prevention. Preventive Medicine. 2014;66(0):131-9.