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Title: Worsening trends of obesity across Canada: a consecutive cross-sectional population-based study, 2005-2018 **Authors:** Ellina Lytvyak MD PhD, Sebastian Straube BM BCh, DPhil, Renuca Modi MD, Karen K. Lee MD MHSc

Reviewer 1: Dr. Shahebina Walji General comments (author response in bold)

Because part of the objective of this paper is to discuss the implications of obesity prevalence for the COVID19 pandemic, it would be nice to see a paragraph in the introduction on COVID19 that includes what it is, what "severe outcomes" means, and what the known risk factors are for severe disease - including obesity (could use tables for this). If available, it would be great to see Canadian data re: % hospitalized COVID19 patients with obesity as a risk factor, % ICU admissions with COVID19 and obesity, etc. Maybe a table would be a nice visual for this too? I did note that this information is in the discussion, but seeing it upfront strengthens the need for such an analysis. **The COVID-19 focus was removed (pp. 1-8)**

It was noted in the methods section that indigenous populations, those residing in institutions, residents living in remote areas etc were excluded from the CCHS. It might be worth noting this in the limitations section. We know that prevalence of obesity in indigenous populations is high and access to obesity care is very limited. Perhaps this population might be at particularly higher risk of severe COVID19 disease? **Noted in the Limitations section (pp. 7-8)**

In the interpretation section, it would be great if there was some discussion around the proposed mechanisms by which obesity is related to severe COVID19 outcomes. **The COVID-19 focus was removed (pp. 1-8)**

Reviewer 2: Dr. Ali Zentner General comments (author response in bold)

The study looked at rates of obesity in Canada from 2005 to 2017-1018. It then makes the "promise" that this will address Concerns for Covid-19 Pandemic Severity. To link these two factors is a somewhat oversimplification of both obesity and of COVID-19 infections. There is this implication that obesity is a "straight line" to COVID-19 and this is not really addressed in the discussion section. I think a comment on the complexity of both should be stated. There is an assumption in the title that increased obesity in Canada will lead to increased COVID infections and that argument has not been made. For example- Newfoundland had the highest rates of obesity in Canada and some of the lowest rates of COVID infection.

The COVID-19 focus was removed (pp. 1-8)