Reviewer's report

Title: B-vitamin consumption and the prevalence of diabetes and obesity among the US adults: population based ecological study

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Reviewer: Jian Shen

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1. The authors compared the lag time of 11 years between energy consumption and B vitamins with the lag time of 10 years between obesity and B vitamin consumption and concluded that “it is unlikely that the increase in the per capita energy consumption may be a primary cause of the increased prevalence of obesity”. However, the lag time difference (one year) doesn’t seem to reflect the precise temporal relationship among B vitamins fortification, energy consumption and prevalence of obesity, and also doesn’t address the potential issue of confounding factors. It is not clear whether the authors can’t separate the effect of some potentially important confounders, particular those that we have known to associate with both exposures and outcomes, such as energy intake.

2. The current observation seems to contradict some recent studies showing that obesity and diabetes are inversely associated with the status of certain vitamins, including vitamins C, B6, E and carotenoids.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests