Reviewer's report

Title: Association between legume intake and self-reported diabetes among adult men and women in India

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Reviewer: Edith Feskens

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This paper describes the association between legume intake, other risk factors, and the prevalence of self-reported diabetes in the Indian NFHS 2005-06. Daily or weekly legume intake was inversely associated with diabetes prevalence in women, and non-significantly so in men.

Comments:

General: In general the data are well analysed and reported. The Results section is a bit long. The most important comments relate to the interpretation of the results. One could also conclude: ‘diabetes patients from India have higher legume intake’. I think the cross-sectional nature of the study and the ‘clinical’ diagnoses are eloquently discussed in the Discussion section, but the final interpretation remains as suggest in the Introduction, an etiological relationship. This conclusion is too strong, and should be modified to take the possibility of reverse causation into account.

Secondly, although it is generally advised to focus on a specific etiological hypothesis, the results from Table 3 and 4 show an interesting pattern, which to my opinion suggests that the focus of the paper should better be revised: from legumes to risk factors including dietary ones, in general. This gives also the opportunity to elaborate a bit more on a very interesting robust finding, that fruit intake is significantly inversely associated with diabetes prevalence in both men and women, a much more stronger finding that the legume one! Then a longer Results section is better justified as well.

Details:

1. Logistic regression: It would be helpful if not only the (adjusted) ORs are presented for each category, but for the overall variable also a p-value for trend is displayed. This gives additional information, i.e. on the ‘dose-response’ curve.

2. Given the very high use of legumes in India, it would be more logical to use the frequent users as reference category?

3. Line 335: given the shortcoming of the study as indicated above I particularly object to the use of the word ‘risk’ in this sentence, it should be replaced by ‘prevalence’

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.