Reviewer's report

Title: Association between legume Intake and self-reported Diabetes among adult men and women in India

Version: 2 Date: 25 March 2013

Reviewer: Mary Beth Weber

Reviewer's report:

I applaud the work the authors have put into the manuscript. The document reads much better.

- Abstract: in the methods the term “diets” should be changed to food items or foods.
- Background:
  o Second paragraph – except the first sentence, the grammar is very poor here and should be re-written to match the style of the rest of the paper. Specifically, the second sentence is a run-on; the third needs a citation for the first half (“More than half…”) and the second half should be cut entirely (not very scientific and not justified with data); the forth is unclear; and the fifth sentence is awkward and contains the same information as the last sentence of the next paragraph.
  o Third paragraph - The comment after citation 19 is unclear. Do you mean to say that the data is representative of 99% of the Indian population? The way it is phrased now sounds like it included 99% of the population, which cannot be true.
- Methods:
  o How and why did you select the subset of the NFHS-3 population that you used for this analysis?
  o In the section on predictor variables, you should delete the word consumption from the end of the sentence beginning “This question was asked…”
  o In the second to last paragraph in this section, you need to cite the sentence saying that legume intake is likely to vary by gender. I am still not convinced that this is necessary true.
- Results:
  o The increase odds of diabetes across older age groups is an expected finding. I would be concerned if you didn’t see it.
- Discussion:
  o Paragraph beginning “It is necessary…” (1) The second sentence is unclear to me. (2) Is there a citation for the validity of the Demographic and Health Surveys? (3) The sentence beginning “Another limitation of our study is reliance” is awkwardly worded. (4) It probably doesn’t really matter that you couldn’t determine type of diabetes, since 95% is type 2.
In the last paragraph in this section, you state that people with diabetes had increased legume consumption, but this is not supported by your data. Legume consumption seemed high for everyone.

- Conclusions:
  - The final sentences (beginning with “In view of growing…”) need to be rewritten to be clearer.
  - You cannot say that daily legume intake is protective. It is only associated in your study. Protective implies causality.
  - The final sentence is a bit strong of a conclusion for a cross-sectional study.

- Tables:
  - Table 1: please specify in a footnote what the Chi squared test is testing. Also, I would recommend changing the percentages in the diabetes column to reflect the percent of people with diabetes who fall into a particular category instead of the percent of the entire population.
  - Tables 2 and 3 – I am not sure what the p-value for trend is testing? Trends in the full model only? Please add a footnote to clarify.

**Level of interest:** An article of limited interest

**Quality of written English:** Needs some language corrections before being published

**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.