Reviewer's report

**Title:** Strong nutrition governance is a key to addressing nutrition transition in low and middle-income countries: review of countries’ nutrition policies

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**Reviewer:** Celine Bonnet

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This paper analyses the relationship between nutrition policies or governance and the nutrition status of low and middle-income countries (LAMICs). They are interesting in both undernutrition (stunting, wasting and underweight) and overweight-obesity status. They put together a set of international databases to deal with this issue.

This work tackles an international health concerns. The idea of merging several databases and giving some general results about the effect of nutritional policies is interesting. However, the way the analysis is driven does not bring a lot to the nutrition literature.

Well, I list comments on the paper:

1. I would re-organize the section “methods”. You have 5 subsections (Novelty checks..., Databases..., Data extraction..., Measurement, and Analyses). For subsections 1 to 4, you explain a little bit all the databases at each stage. The reader is lost with all those trips between databases... I think it would be more efficient to put together the four subsections, to explain the 4 steps in the procedure and to describe at each step, the dataset, the variables and so on... Hence, you go in details about each dataset once rather than to come back at each subsection to each database.

2. You get some information about nutritional policies and nutrition status about 139 countries. I’m waiting some descriptive statistics, some maps as in those types of documents. I’m waiting some comments about the countries which have lower and higher rates of undernutrition and obesity status, and nutrition policies. I’m waiting comments about differences across continents too.

3. Question on endogenous variables: you have the information of different year interval. Which ones?

4. Questions on exogenous variables:

   a. Nutrition policies: how do you take into account that countries apply several policies for undernutrition for examples? What the additional variable “nutrition governance” brings to the variable “nutrition policies”? This is not clear... What is the correlation between those variables? Give more details.

   b. There exist several kinds of nutritional policies (information campaign, education for child, price policies...), what are the nutritional policies applies in LAMICs? What are the implications on nutrition status of those different kinds of
nutritional policies? What are the more efficient in terms of reduction of undernutrition or obesity?
c. You have access to world bank’ database. I don’t understand why you don’t use economic or politic variables to control the effect of nutrition policies on nutrition status.

5. Results:
a. Descriptive part: the way you present them is boring and as I have no information about the countries behind your results, this brings few interesting information!
b. Statistics part:
   i. Control variables are missing as explained by remark 3b.
   ii. I would implement another regression to take into account difference of nutrition policies across LIC or MIC and hence to look at differences of the impact of policies on nutrition status.
   iii. You can comment table 5, 6 and 7 together… Your writing is very repetitive.
   c. Making a distinction between results and discussions leads to a boring “results” section. I would merge both.

6. For overweight status, it could be interesting to get data on all countries and to look at the nutrition policies effect at a global level differentiating the effect on the level of income of countries.

7. I’m left wanting more in terms of public policies in the conclusion. Taking into account the number of nutritional policies, the different kind of nutritional policies, different effect of nutritional policies according to different kind of countries, controlling for political or economic variables would help to assess more interesting results. You highlight the importance of nutritional governance but as I wrote above, the difference with nutritional policies is not clear and, hence, I misunderstood your main conclusion.

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

no competing interest