Title: Changes in metabolic profiles after the Great East Japan Earthquake: a retrospective observational study

Version: 6 Date: 19 January 2013

Reviewer: Toru Hosoda

Reviewer’s report:

It was my first review on the manuscript, which has been revised five times. Tsubokura and colleagues demonstrated that more people suffered from metabolic disorders after the earthquake happened on March 11th in 2011 in Japan. They also pointed out that there was a regional difference potentially due to the distinct former life styles of the evacuees. The study would offer unique and useful information and suggestions to health care providers and politicians dealing with people involved in such disastrous events. This reviewer would like to make minor comments for consideration.

From the presented data, one cannot know whether the significant difference observed was due to a remarkable change in a small portion of the group with the majority unchanged (or improved) or a small but significant change contributed by most of the participants. Actually these two explanations represent totally different conditions, and it may be critical for policy makers to clarify the actual situation. To discriminate these possibilities, the authors may consider demonstrating the change of each case by plots, at least regarding variables that they consider important.

On page 11, in the third paragraph, the hypothesis in the 2nd sentence seems nullified in the 3rd sentences. Is it what the authors mean?

There are numerous grammatical mistakes in the text. Erroneous expressions include:

On page 2, line 2, “in” should read “on”.

On page 2, line 4, “the” should be inserted before “great”, before “expected”, and before “Fukushima”, respectively.

On page 2, line 5, “was” should be removed.

On page 2, line 6, “high” should be inserted after “meters”.

On page 2, line 10, “disaster” should read “disasters”.

On page 4, line 2, “in” should read “on”.

On page 4, line 3, “the” should be inserted before “Japanese”.

On page 4, line 4, “involved with” should read “involving”.

On page 4, line 5, “the” should be inserted before “Fukushima”, and “The most evacuees” should read “Most of the evacuees”.
On page 4, line 7, “nuclear power plant” should be followed by “have been moved from evacuation shelters to the temporary houses provided by the local governments by September 2011, 6 months after the earthquake”.

On page 4, line 9, “the natural disaster” should read “natural disasters”.

On page 4, line 10, “a” and “an” should be inserted before “deteriorated” and before “elevated”, respectively.

On page 4, line 11, the sentence “Thus,...” should be rephrased.

On page 4, line 14, “at” should read “in”.

On page 4, line 15, the sentence “The Soma city...” is grammatically incorrect and needs to be rephrased; in the same sentence, “the” should be inserted before “northeast” and before “Fukushima”, respectively, and “far” is unnecessary.

On page 4, line 18, “a” should be inserted before “tsunami”.

On page 4, line 19, “high” should be inserted after “meters”, and “the” should be inserted before “total”.

On page 4, line 20, “death” should read “deaths”, “is” should read “was”, “reported to be” should be removed, and a comma is necessary after “475”.

On page 4, line 23, “on” should be inserted between “was” and “the”, “been” should be removed, and “a” should be inserted before “Triple”.

On page 5, line 1, “who are” is unnecessary.

On page 5, line 2, “the” should be inserted before “coast”, before “tsunami”, and before “mountain”, respectively, and “is” should read “was”.

On page 5, line 3, “by” should be replaced by different terms, and “that” should be inserted between “and” and “the”.

On page 5, line 5, “in” is unnecessary.

On page 5, line 6, “the” should be inserted before ”coast”, and “nuclear” could be inserted before “plants” for clarity.

On page 5, line 7, “the” should be inserted before “mountain”.

On page 5, line 9, “was” should read “were”.

On page 5, line 10, “the” should be inserted before “coast”, before “tsunami”, and before “mountain”, respectively.

On page 5, line 21, the sentence “The participants...” should be rephrased.

On page 8, last line, “increase” should read “increases”.

On page 9, last line, “a” should be inserted before “negative”.

On page 10, line 3, “excise” should read “exercise”.

On page 10, line 15, “that” should be inserted between “and” and “changes”.

On page 11, line 4, the sentence “The number...” is grammatically incorrect and should be rephrased.

On page 11, line 7, the sentence “To increase...” could begin with “Increasing the
health care...”.

On page 11, line 16, “large cohort” should read “a larger cohort” or “large cohorts”.

On page 13, the reference 5 does not need the ending page number.

On page 16, line 3, “where scale bar indicates” should read “where the scale bars indicate”.

On page 16, line 4, “shows 100 km...” should read “show 100 km intervals) is located southwest of the center...”.

On page 16, line 6-7, both “far” could be removed, and “dotted concentric circle” should read “the dotted circle”.

On page 16, line 9, “of” should read “on”, and “that people are difficult...” should read “that it is difficult for people to stay standing”.

On page 16, line 10, “meter” should read “meters”, “the” should be inserted before “great”, and “at” should read “on the”.

These are merely examples, and an English-speaking scientist should edit the manuscript carefully and thoroughly before resubmission.

**Level of interest:** An article of importance in its field

**Quality of written English:** Not suitable for publication unless extensively edited

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests.