Reviewer’s report

Title: Mortality following the Haitian earthquake of 2010: A Stratified Cluster Survey

Version: 1 Date: 5 November 2012

Reviewer: Herbert Duber

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The article by Doocy and colleagues makes a valid attempt to estimate mortality in Port-au-Prince as a result of the 2010 earthquake. This is an important contribution given the lack of clarity from UN agencies and the Haitian government in determining widely quoted Haitian earthquake mortality estimates. Furthermore, this paper identifies determinants of earthquake associated mortality in Port-au-Prince, a key step in mitigating future disaster associated mortality. The findings of this article will be of particular interest to those in the fields of public health preparedness, disaster management, and development in LMIC.

- Major Compulsory Revisions

The author must respond to these before a decision on publication can be reached. For example, additional necessary experiments or controls, statistical mistakes, errors in interpretation.

1. The authors used a stratified cluster survey to determine death rates, which were then extrapolated to the general population to estimate overall mortality. The authors acknowledge that there are a number of limitations associated with this strategy, most notably the fact that families that were most affected (i.e. “complete mortality”) are unaccounted for, likely underestimating true mortality. However, even taking into account these limitations, it is unclear that the calculated death rates are applicable to the larger Port-au-Prince population. Camps were chosen from a list provided by the Camp Coordination and Management Cluster, but there is no identified process by which particular camps were chosen and therefore thought to be “representative.” The choice of neighborhoods is clearer, but still lacks sufficient explanation as to why these neighborhoods are considered to be representative of the affected population in Port-au-Prince. The manuscript states that a combination of building damage and population size was used to create a representative neighborhood sample, but further detail is not provided. Finally, the authors discuss communes as part of their cluster survey strategy, but do not further mention communes in the results or elsewhere in the paper-this was confusing and should to be clarified.

- Minor Essential Revisions

The author can be trusted to make these. For example, missing labels on figures,
the wrong use of a term, spelling mistakes.


2. The authors should provide more clarity of purpose. The abstract’s introduction does not mention mortality estimates despite this being the primary purpose of the manuscript (risk factors secondary). After a well-crafted hypothesis in the final sentence of the introduction, there is again confusion in the methods section where the authors state the study was performed to “assess their [Port-au-Prince population] economic status and perceptions of humanitarian assistance one year post-earthquake.”

3. Sample size calculation should be clarified. Unsure what is meant by “prevalence of living conditions and economic impact”

4. Who answered the survey? Head of household? This could affect recall bias.

5. Please clarify paragraph 3 in the results section where you state “crowding is important of socioeconomic status that was also associated with increased mortality risk, however, this finding was not statistically significant”

6. Table 2. Location, as defined here, is not a “baseline characteristic”

- Discretionary Revisions

These are recommendations for improvement which the author can choose to ignore. For example clarifications, data that would be useful but not essential.

1. Consider creating a whisker plot to present the adjusted odds ratios in table 3 broken down by camp vs. neighborhood vs. overall.

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

**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