Author’s response to reviews

Title: The gap in human resources to deliver the guaranteed package of prevention and health promotion services at urban and rural primary care facilities in Mexico

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Reviewer reports:

Reviewer #1: The paper is devoted to give a somehow new methodological spin on the old subject of human resources planning, using as a reference a pre-programmed basket of services that are part of the Mexican CAUSES. By the way, I was surprised in not finding "human resources planning" in the keyword list.

R: "human resources planning” was included as a key word (page 2, line23)

The methodology and internal validity and consistency work well, proving that a planned scheme or basket of services are the best foundation to piggyback a planning human resources technique. At the same time, the fact that the research excluded the rest of the services apart from promotion and preventative, opens a question about external validity of the method.

R: External validity

We consider that our methodological approach can be used in contexts similar to the Mexican Health System. Also, this model can be used to measure the availability of human resources not only for prevention and promotion activities but also for individual care activities.
The differences in urban and rural PHC, even expected are well addressed. Perhaps a more region-by-region or state-by-state study can shed more light in assessing specific shortages and direct policies. The conclusions (shortage of MD's and HP's) may be applicable, but what would happen if all the services included in the CAUSES are factored in? Probably shortages are much larger than they seem. This is stated in the article, so no fault is present, but I think that it may be important to highlight or suggest a way to account for the not calculated service needs.

In any case it is a good article, uses different statistical tools than the usual, and serve to the purpose. The text is clearly written and a few typos will be surely corrected in the editing process.

R: We agree with the reviewer. In the text in Page 11, line 6-9 “However, the real scenario is likely worse, because this study assumed that health personnel is dedicated exclusively to performing activities to deliver the package of prevention and health promotion services, but in reality they use only part of their time for this service provision.

Reviewer #2: Estimating the amount of human resources required to achieve specific programme goals is a complex and complicated process. The research presented mirrors the complexities involved in such an approach and exemplifies the difficulties encountered (page 14). As has often been observed, the difficulties in correctly establishing the purely health intervention-based time and the administrative and other time needed for recording, reporting and inclusion of other staff activities are also noted in this research effort, thus rendering the results in further need of adjustments to quantifying total staff needs. It is hoped that future efforts can be developed to get more accurate appraisals of staff needs taking into account all staff time needs.

R: This comment is very important because during our research, staff in primary health facilities reported that the administrative records of care provision took long time to be completed. One of the major policy suggestions of the paper considers the need to have better records to carry out more accurate analysis.

1. Editorial comments:

The article needs review of English typing and spelling, and errors need to be removed prior to publication. A native English language co-author should review the article in this respect. There are multiple spelling errors throughout the article before it can be accepted for publication.

R: All typing and spelling errors that were pointed out by the reviewer were corrected. A native English language speaker gave a final language check up.
Examples:

Page 5, line 6 reads: "....to improve population's health status ...", should it not be: "to improve the population's health status ... or rather "... to improve population health status ..."? , line 8 reads "...the formal sector of economy ..." which should read "...the formal sector of the economy ..."

Page 4, line 10 " .... guidelines for integrations of HR ...". The word "integration" should be spelled in singular, not plural.

Page 6, line 16 "... percentaje of polulation ..." ... this editorial inattention has to be corrected.

Page 6 line 24, check for correct past tense of the word "implement".

Page 7, line 8: "... variables to estimate HR ..." This should read "... variables to estimate ...."

Page 9, line 3, "...similarities ..." should read "...similarities..."

lines 12/13: "...annual hours was calculated...". Correct plural form of "to be" in past tense is "were".

Page 11: lines 9 and 15: The words "different" and "differences" need correct spelling.

Page 12, line 17: English language correction needed. "This situation makes clear the importance to consider ...." This looks like an automatic translation of the direct word-by-word type (possibly from Spanish into English) and needs reformulation.

Throughout the paper, reference indication is inconsistently applied in either upper or lower case, for example, page 4, line 18.

Translation of an institutional name should be checked. For example, page 6, line 22: "...General Direction of Health Information", should it not better be indicated as "...General Directorate of ...." in addition to correcting on line 23 from "... Federal District (Mexico City) have only ... to "Federal District (Mexico City) has only ...)?

"Abbreviations" on page 14 should be checked for completeness and presented in alphabetical order.

Table 1: The column title "Pre y post partum" should be corrected to read "Pre- and postpartum"

Table 3, column 1 (Group of age) needs to be corrected to read "Age group", the Term "Pregnat woman" needs to read "Pregnant women"
2. Content

Page 2, line 5: the term "convenience sampling" is introduced. It will be helpful to include a footnote on the page with a short explanation of the term.

R: We describe the “convenience sampling” in page 6 lines 13-17

convenience sample considers the following criteria: a) geographic diversity (North, Centre and South), b) REPSS juridical status (Decentralized, deconcentrated or integrated) and c) level of REPSS Performance (affiliation: percentage of population who is affiliated to SPS and coverage: percentage of population with SPS that use health services). We did not include a footnote in the abstract section regarding sample and opted to incorporate it only in the methods section of the article.

The SPS package contains 284 primary and secondary interventions (page 5). In order to estimate the HR needed for implementation 99 prevention and promotion activities were used to estimate the current and "ideal" HR needed to achieve the programme goals in the pilot phase. A complex statistical process has been applied to identify the correctness of the approach and HR estimates. The process applied and the results achieved will benefit from confirmation by a statistician.

R: Two of the co-authors are experts on statistical analytical methods. They checked the methods and estimations thoroughly.