Author’s response to reviews

Title: The 'Dream Team' for sexual, reproductive, maternal, newborn and adolescent health: an adjusted service target model to estimate the ideal mix of health care professionals to cover population need

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Version: 1 Date: 31 May 2017

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Reviewer #1: A welcome, useful and practical contribution to service target-based methods for human resources for health planning. The method proposed provides clear guidance towards specific cadre planning while respecting the distinct country context in terms of epidemiology and demography. Some small changes are suggested:

Line 341: Spell out the workforce abbreviation used (obs/gyns) to add clarity. Spelled out in full

Line 353: Replace the term 'pay-it-forward' with more specific terminology or reformulate to enhance understanding. Re-worded

Line 396: Indicate the full reference "a*", if available by now. Document is available. Correct reference added

Reviewer #2: In this paper, the authors have taken an innovative approach to estimating health care workforce needs for achieving specific health development goals. In particular, through a bottom-up approach, they take into account the skills mix needed to efficiently deliver a large set of SRMNAH health services and translate these need requirement in terms of FTEs. The paper's
purpose, methods, and findings are presented well overall. The manuscript could benefit from a few clarifications as follows:

Abstract

Which cadres are considered in the "dream team?"
List inserted in a footnote in line 93 Reference made to Annex 2 regarding dream team tasks

Methods

Clarify whether the "model" developed is stochastic or deterministic
The method is deterministic – inserted in line 127

Explain the scope of work for auxiliary midwives and nurse midwives. How does this differ from regular nurses/midwives?
Reference to the Annex with tasks added in line 131 - 132

Why are community health workers excluded? Arguably, they are more efficient for delivering primary care services than higher level cadres, and are often used in developing countries
Text added in line 225 - 231

How universal are the assumptions made about working hours?
How would this affect your estimates?
Standard assumptions are used, referenced and explained in lines 158 - 163.

In choosing the lowest level cadre to deliver a particular service, this naturally fits the definition of efficiency, but how does this also preserve quality of care? Please explain.
The method choses the most competent cadre first and then the cheapest cadre among those who have the competencies. Explained in line 183 - 188.
Results

There are projections of need in 2030. Yet, no explanation of making projections was given in the Methods section. This seemed to come out of nowhere. Can the authors explain how this exercise was done and where the data came from? Future projections method added to the methodology section, lines 216 - 223

Limitations

While there are notable advantages to estimating FTEs, there are also inherent disadvantages (e.g., the extent to which individuals' times and distribution are perfectly substitutes). The authors may want to address this.

Raised and explained in the limitations section line 380 - 384.

Discussion

It is difficult to put the resulting number of needed SRMNAH workers that are generated by your model to what other estimates of health worker needs are. The comparison of midwives per 175 births to the external benchmark is helpful in this regard. Is there a similar comparison that could be done for the overall number of SRMNAH workers? For example, how does the 44 SRMNAH /10,000 women of reproductive age needed in Malawi and Zambia compare with what's estimated as needed overall for these countries to help place this number into the greater context of the HRH situation in each country?

A comparison is undertaken in line 281 - 296