Author’s response to reviews

Title: Reforming Medical Education Admission & Training in Low- and Middle-Income Countries: Who Gets Admitted and Why it Matters

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Author’s response to reviews:

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Dear Members of the Editorial Board of BMC Human Resources for Health:

Thank you for your recent email offering the opportunity to revise and resubmit our commentary entitled, “Reforming Medical Education Admission & Training in Low-Income Countries: Who Gets Admitted & Why it Matters.” We would like to thank the editorial board and the peer-reviewers for their thoughtful comments and important suggestions, which have helped us to improve the quality of our commentary.

We have carefully reviewed and responded to all feedback. Please find below a point-by-point response for each of the comments. We are also submitting a revised commentary, accordingly. Thank you for your continued consideration of our commentary.

Sincerely,

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Reviewer reports:

Reviewer #1:

Comment #1: This commentary article has not been mentioning about health system, since the first sentence. Many references has revealed that system will affect behavior, in this case health system will affect the healthcare provider's behavior.

Author response: We appreciate this insightful comment. We agree with the reviewer that the larger health system in which providers operate plays an important role in shaping the behavior of providers. A number of the extrinsic factors that we discuss are a result of how the larger health system operates, such as the regularity of supervision or the determination of wages or the lack of sufficient physical infrastructure (discussed on pages 4-5). However, we should have been more explicit that these extrinsic factors are part of the health system. Therefore, for clarity, the following has been added to page 4: “Extrinsic factors impact provider behavior and are often embedded in the larger health system of LMICs.”

Comment #2: The other issue is related to selection of candidates who have positive intrinsic motivation profile. It will be very difficult to select students with particular profile. In low resource setting, the positive intrinsic motivation can be covered by unfavourable behavior, as an impact of negative environment. This article is expected to share several practical aspect to address this issue.

Author response: Thank you for this important comment. We agree that it could be difficult to accurately identify and select candidates with strong intrinsic motivation. However, we suggest it is possible to take steps to make it more difficult for such students to be excluded in favor of applicants who are wealthy but otherwise lacking qualification (steps, for example, such as cracking down on admissions bribes, encouraging applicants from rural locations, among other strategies described on pages 7 & 8). We have added the following to page 7 in order to make this point more explicit: “We suggest the recommendations below will reduce the likelihood of intrinsically motivated candidates being excluded in favor of applicants who are wealthy but otherwise lacking qualification.”

Regarding the suggestion that strong intrinsic motivation may be dampened by a challenging environment; although this may occur, as we have described on page 5, those with strong intrinsic motivation will persist even in the face of such an environment: “… high levels of intrinsic motivation are linked to self-efficacy, with the result that healthcare providers will strive for high quality service delivery even when the external environment is not ideal.”
Comment #3: Small evidence that shows how education and training can be a prominent factors to create intrinsic motivation, should be written in this article.

Author response: We cite several studies (references 13-15) demonstrating the impact of education and training on provider motivation and performance. These articles primarily reflect work implemented by the Training for Health Equity Network (THEnet), which is an international collaboration. We now clarify on page 8 that our recommendations are based, in part, on this model.

Reviewer #2: General

This review is on an important topic regarding the performance of health workers and provides some useful recommendations.

However, in its current state there is a lack or clarity in the following areas:

a. The nature of the problem: performance - absenteeism, receiving informal payments, abusive behaviour; attraction and retention - especially to work in rural areas; or both?

Author response: Thank you for this insightful question. These behaviors are hypothesized to be more prevalent in rural areas where supervision is much less frequent. We have added text to make this clear on the top of page 3.

b. Low-income countries or low and middle-income counties: direct or indirect references are all to middle income countries (Iraq, Nigeria, Philippines, Cuba and India) - see https://datahelpdesk.worldbank.org/knowledgebase/articles/906519?

Author response: Thank you for this important point. We believe this commentary is relevant for low- and middle-income countries (LMICs) and we have made minor edits throughout the commentary for greater specificity.

c. Clinicians or health workers in general?

Author response: With the term ‘healthcare provider’ we intend to refer to both doctors and nurses. We have clarified this via a footnote at the bottom of page 2.

Next, though clarity on a - c is first needed, there is insufficient identification of the root causes. A major emphasis is put on 'professional identity' without this being explained or how it leads to the specific problems identified. More attention to root causes is needed, though without going into too much detail, given that this is a commentary.

Author response: This is a really important point. In response, we have added the following text to the bottom of page 8 in order to explain how lack of professional identity may lead providers to engage in activities that fail to consider the best needs of the patient: “In the context of
healthcare provision, the term ‘professional identity’ encompasses the extent to which providers consider themselves part of a larger group of medical professionals; strongly identifying with the medical profession is likely to be predictive of an individual’s willingness to prioritize their duty to the patient’s well-being over their own personal gratification. Lack of professional identity contributes to the high prevalence of negative provider behaviors.”

This then means, without proper analysis of the causes, that the argument of linking improvements in admission procedures to better workforce performance is not strong. This should be reviewed.

Author response: Please see clarification above.

Additional points:

* The recommended number of references (10) has been exceeded

Author response: Thank you. We have removed references to bring us closer into compliance with this guideline.

* The problems identified occur in HIC and MLIC countries. Perhaps the argument about maximising the effectiveness of the workforce can be made - relevant to all contexts - but that this is particularly important in LMICs where disease burden is highest and workforce shortages greatest. As currently expressed, authors may be open to criticism for lack of justification for selection of this category of country.

Author response: Thank you, we agree and are happy to insert this language into our manuscript, per your suggestion. The following statement has been added to the top of page 3. “Improving workforce efficiency is important in all country contexts but is particularly important in LMICs where disease burden is highest and workforce shortages are greatest.”

* Before proposing to foster intrinsic motivation during training, some discussion of whether this had existed before (in my experience in many LMICs it had) and if so, why has this been eroded. Again, it's necessary to address the causes.

Author response: We appreciate this suggestion; however, we are not able to identify any sources of information that verify a historical practice of emphasizing intrinsic motivation during medical training in the LMIC setting. Our intention with this commentary is to make suggestions for improvement to the current system of medical education.