Author’s response to reviews

Title: Demographic and risk group heterogeneity across the UNAIDS 90-90-90 targets: A systematic review and meta-analysis protocol

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Files from Jan 14 and 15 now removed.

Apologies for the late submission, please see responses to individual questions below.

- You have mentioned the HIV care cascade several times, including in your inclusion criteria and data extraction items, but its elements are not described or anywhere. Can you please briefly describe elements of the HIV care cascade for readers unfamiliar with the topic area? - We've now added text to clarify that the 90-90-90 goals are synonymous and in alignment with the "HIV care cascade".

- In the data synthesis section starting on line 183, please clarify what the term “Synthesize” means or perhaps use a different term. What do you mean by “we will synthesize information on…”? The word synthesize suggests you will combine data from multiple studies into a single estimate. Will you summarize virological suppression data across studies (i.e. meta-analysis) or simply report data collected for each study? What kind of data do you expect? How will data be synthesized? - We do not intend to combine the virological suppression data, rather we intend to report and present the
distribution of data we find. In short, we do not wish to generate a single point estimate of any outcomes of interest for this review.

- Your revisions indicate that you will calculate measures of association for studies not reporting them. Can you indicate which measures of association you expect to calculate for continuous and dichotomous outcomes? Additionally, will you calculate measures of precision (e.g. 95% CI)? - Added clarification that we only wish to calculate odds and risk ratios, and will not calculate confidence intervals.

- May you please elaborate on why PRISMA-P items 17 (confidence in cumulative evidence) is not applicable. - Our interpretation of this item is with respect to reviews which are more clinical in nature. For example, assessing the strength of evidence and association regarding indications for treatment, with the goal of making a normative recommendation on best practices for specific patient segments. In our review, we aim to summarize information across a variety of contexts and populations, which lack any single underlying truth. Instead we think these data will reflect potential patterns or discrepancies in access to care in each respective context. To this end, we don’t intend to determine whether each included source is “true”. Please let us know if this interpretation of PRISMA-P item 17 is too narrow and should be generalized.