**Author’s response to reviews**

**Title:** Effects of multicomponent primary care-based intervention on immunization rates and missed opportunities to vaccinate adults.

**Authors:**

Natalia Loskutova (nloskutova@hotmail.com)

Craig Smail (csmail@stanford.edu)

Elisabeth Callen (ecallen@aafp.org)

Elizabeth Staton (elizabeth.staton@cuanschutz.edu)

Niaman Nazir (NNazir@kumc.edu)

Brian Webster (BWebster@wilmingtonhealth.com)

Wilson Pace (Wilson.Pace@dartnet.info)

**Version:** 2  **Date:** 28 Jan 2020

**Author’s response to reviews:**

Response Letter

Tricia Nowalk, PhD (Reviewer 1): The authors have done a good job addressing the reviewers' concerns and the paper is clearer now. However, I still believe that the regression analyses are not correct. Hierarchical regression is not the same as stepwise regression. Hierarchical regression accounts for the fact that patients are nested within providers. Thus, there are two levels. In SAS the program is GEE - generalized estimating equations. Once done, the results would be best presented in a table.

We have re-run the regression analyses using the hierarchical regression function and updated the relevant methods (Page 11, Line 231-234) and results section (Page 12-13, Line 269-278), and added a table as requested by the reviewer (Table 3, Page 24).

A couple of minor comments:

Line 323: Cannot really say "especially in the intervention group." if there is no significant difference between the intervention and comparator groups.

Line 329: seems like "groups" is extraneous.
Line 333: suggest adding "but not significantly" after "moderately."

Line 336: Suggest deleting "The."

Line 337: Suggest ending sentence at "...CDS when used alone." then begin new sentence and paragraph with the second point about 19-64-year olds. (combine with next paragraph)

The Discussion might consider mentioning that High risk 19-64-year olds might see specialists and receive vaccines there.

All minor comments above have been addressed in the manuscript as suggested by the reviewer.

Additional Editorial comments:

1. Please consider the list of authors as it currently stands with reference to our guidelines regarding qualification for authorship (http://www.biomedcentral.com/submissions/editorial-policies#authorship).

Currently, the contributions of authors NYL, EWS and CS do not automatically qualify them for authorship. In the section “Authors’ contributions”, please provide further clarifications on their contributions, and see our guidelines for authorship below.

We have provided further clarifications on the abovementioned authors’ contributions according to the stated guidelines for authorship.

2. Please proofread and ensure that when you upload your revised submission it is in the final form for publication. Please remove any tracked changes or highlighting and include only a single clean copy of the manuscript. Should you wish to respond to these revision requests, please include the information in the designated input box only.

The submitted manuscript is the final clean copy that included minor revisions in response to the comments above as outlined in the response letter.