Author’s response to reviews

Title: The influence of medical providers on HPV vaccination among children of Mexican mothers: Comparison between Mexico and the Midwest region of the United States

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Author’s response to reviews:

Dear editors,

We thank the reviewers for the revision of our manuscript and for the comments provided. We believe this has strengthen our manuscript. Our detailed response is as follows:

RESPONSE TO REVIEWER #1:

COMMENT: Include actual cervical cancer and HPV incidence rates and compare across the two contexts for the reader to better grasp disparities

RESPONSE: Thank you for your feedback. We have incorporated cervical cancer incidence rate for both countries as recommended. We did however, exclude incidence rate for HPV infection. We were unable to find this rate after the introduction of the vaccine for Mexico and believe that comparing this figure with a much recent one for the U.S., would inaccurately represent both countries. Please see the changes in the background section, lines 62-66, page 4.

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COMMENT: Are there more recent studies documenting acceptance of the vaccine in Mexico? Two studies are cited and one was published in 2001 before the licensure of the vaccine

RESPONSE: Thank you for your suggestion. We have added a more recent study for documenting acceptance of the vaccine in Mexico among a similar population. The study was
done between the release of the vaccine and its introduction to Mexico specifically. Please see the changes in the background section, lines 97-100, page 5.

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COMMENT: What are the reliability estimates of the scales? Were they similar across samples?

RESPONSE: Cronbach’s alpha values to evaluate the reliability estimates were included in the methods section. They were similar across samples. Please see the changes in the methods section, lines 162 and 171-172, page 8.

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COMMENT: Please clarify how many mothers had vaccinated their eligible children across sites. This is important as the statistical model is testing the influence of variables assessed on intention to vaccinate.

RESPONSE: We have added in table 1. The number of mothers that vaccinated their eligible children by country of residence. We also added this information to the first paragraph of the results section. Thank you for your suggestion. Please see the changes in the results section, lines 198-199, page 9 and in the table #1.

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COMMENT: Furthermore, knowledge levels may vary as a result of vaccination status. Do results hold if vaccination status is controlled?

RESPONSE: Thanks for your question. Our answer is yes. The results still hold if vaccination status is controlled.

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COMMENT: Include a table where you display the last step of the regression equation. This will help the reader understand how other variables were related to the dependent variable.

RESPONSE: Thank you for your suggestion. We have included the last step of the Stepwise Selection as table #5. This selection model does not provide all variables included in the model to compare among them. However, the last step of the model states that: “No (additional) effects met the 0.3 significance level for entry into the model”. Please see the changes in the tables section, table #5, page 4. Please see the annex in the response letter with all the steps of the model for your reference.

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COMMENT: Double check grammatical and spelling errors. There are several run-on sentences
RESPONSE: Thank you for your feedback. We have reviewed and corrected grammatical and spelling errors. Please find our changes highlighted in the manuscript.

RESPONSE TO REVIEWER #2:

COMMENT: The authors should consider following STROBE guideline in reporting the methods section, to improve flow of the manuscript

RESPONSE: Thank you for your feedback. We have reviewed that the paper follows the STROBE guideline in reporting the methods section. We have used the STROBE Statement, and we submitted along with the manuscript. Please find our changes in the STROBE checklist.

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COMMENT: Was there formal sample size calculation for the study? Though the small size was acknowledged in the study limitations.

RESPONSE: Thank you for the comment. Regarding the sample size, 100 participants were included in the study for each site (Mexico, U.S). Given that the project is a small pilot, this data provides descriptive statistics from a convenience sample to support future studies. Therefore, the statistical power is not a big concern for this study.

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COMMENT: I have a minor comment about the use of stepwise method. Stepwise regression has been considered as a problem and not a solution. It is strongly advised that better models should be guided by substantive theory, scientific plausibility and clinical relevance rather than automatic routine selection of model by stepwise approach.

RESPONSE: Thanks for your great comments. We fully understand the disadvantages of stepwise selection. We do not have a large amount of potential predictor variables. So it can prevent too many predictors are selected. We also go back to check the correlations among the predictor variables to avoid some disadvantages after reading your comments. We do not find any problem with it. We have considered substantive statistical theory, scientific plausibility and clinical relevance as you pointed out in the review comments. We have found that to our best knowledge stepwise selection works well with our data. Thanks again.

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COMMENT: Study limitations should broaden to include issues around generalizability of the findings to the general Mexican population and comparability of participants from Mexico and USA
RESPONSE: Thank you for your feedback. We have incorporated your suggestions into the revised manuscript in the discussion section. Please see the changes in the discussion section, lines 272-277, page 12-13.