

## Peer Review File

Article information: <https://dx.doi.org/10.21037/jphe-23-81>

### Reviewer A

**Comment 1:** This paper proposes a novel way of looking at vaccine hesitancy, through the lens of inequity. More globally diverse examples could be provided to strengthen this argument.

**Reply 1:** This is an excellent point. Thank you for your careful review and constructive feedback. This phenomenon is distinct to predominantly white countries with high levels of economic disparity.

**Changes in the text:** We clarified throughout the paper that this phenomenon has been demonstrated in predominately white and economically stratified countries. For example, in the introductory paragraph we changed: *In this paper we focus on the role of systemic inequity on vaccine hesitancy, specifically as it pertains to racial/ethnic identity and economic status.* To: *In this paper we focus on the role of systemic inequity on vaccine hesitancy in predominantly white, economically stratified countries, specifically as it pertains to racial/ethnic identity and economic status.*

**Comment 2:** Marginalization and Vaccine Hesitancy - I suggest a leading statement to this paragraph describing that the disparity in vaccine hesitancy between marginalized racial/ethnic populations and white populations is an issue in predominantly white society (or otherwise appropriate term).

**Reply 2:** Great point, the changes described above related directly to this.

**Changes in the text:** Specifically, in this section we changed: *The disparity in vaccine hesitancy between marginalized racial/ethnic populations and white populations is well documented.* To: *The disparity in vaccine hesitancy between historically marginalized racial/ethnic populations and white populations in predominantly white countries is well documented.*

**Comment 3:** This paragraph mostly focuses on the disparity among Black communities vs white communities in the US (as citation describes mistrust developed in the US), however, authors cite a statistic about Black and Pakistani/Bangladeshi Brits. More exploration and context of this disparity would be useful since the experience of Black Americans is not the same for Black people in the UK.

**Reply 3:** We agree that the experience of Black individuals in the US and the UK are not the same. Given that both the US and the UK are predominantly white countries, we have adjusted our language to reflect this shared aspect when referring to minority populations from both countries rather than alluding to structural boundaries unique to Black individuals in the United States.

**Changes in the text:** We deleted the word *Similarly* and added the statement *Outside of the US, other predominantly white nations report similar findings* before the UK findings.

**Comment 4:** Economic Marginalization - Provide more information about the meta-analysis of 13 countries. What is the geographic variability/distribution of these 13 countries? The latter two studies are both in white dominant/Western societies and more global geographic variability is warranted to demonstrate support of this argument.

**Reply 4:** Thank you for bringing this crucial point to our attention. Our goal in presenting these findings was to highlight the white, economically stratified countries in this study.

**Changes in the text:** We specified the relevant countries (UK, France, Ireland, Australia) that demonstrate this phenomenon in the meta-analysis.

**Comment 5:** Overall, the paper tends to cite research conducted in predominantly white societies/the “Western world”. The paper would be significantly strengthened if studies in majority non-white countries showcased similar patterns of privilege impacting vaccine hesitancy.

**Reply 5:** Our specification of focusing on white, wealthy countries (addressed in comments 1 and 2) addresses this issue as well.

## **Reviewer B**

**Comment 1:** This manuscript reviews the literature on demographic predictors (namely race/ethnicity and SES) of vaccine hesitancy, particularly as it relates to the tail ends of the economic scale. The paper is succinct and makes a clear argument for the need to clarify factors that lead to vaccine hesitancy. Here are a few comments that the authors may find helpful, should they elect to incorporate these suggestions into a revision.

**Reply 1:** Thank you for your review and helpful suggestions!

**Comment 2:** Since the paper examines vaccine hesitancy at tail ends of the SES spectrum, it may be slightly inaccurate to say that it examines it “across the spectrum.”

**Reply 2:** We completely agree with this assessment and thank you for bringing it to our attention.

**Changes to the text:** We changed the title of the paper and language throughout to *both ends of the socioeconomic spectrum*.

**Comment 3:** It seems like a central recommendation to counter these issues is to “dismantle the oppressive systems” (i.e., “The only way to truly fix the problem is to dismantle the oppressive systems that create earned fear among marginalized people and limit their ability to become the authorities promoting vaccine awareness.” Pg. 5). While that might be accurate, are there more pragmatic solutions that might have more incremental value? This recommendation may make sense academically, but it doesn’t seem very tenable and may limit this paper’s impact for people who may rely on this paper (e.g., clinicians). Can the authors offer other more tenable recommendations based on their work? It seems like the authors offered something like this right before this

statement, but then quickly discounted it. Sometimes, these recommendations are all clinicians have to work with, since they themselves are part of the system and may feel overwhelmed at the task of “dismantling it”, but nevertheless want to help people get vaccinated.

**Reply 3:** We greatly appreciate this comment. Focusing on more pragmatic solutions significantly expands our reach, as clinicians can play an integral role increasing vaccine uptake. We agree that this is a more effective focus for the manuscript.

**Changes in the text:** We adjusted language in the abstract and introduction to frame presenting these immediate strategies as a primary goal of the manuscript. We also ended both the Marginalization and Privilege sections with research on demonstrated ways to decrease vaccine hesitancy with each population.

**Comment 4:** Finally, I think the paper does a nice job supporting its arguments with past research, linking research that captures these topics from global and US perspectives, and COVID-19 and general vaccine hesitation. However, what makes the COVID-19 vaccines really unique is the role of political orientation. It may be worthwhile to explain how political orientation fits into this equity-based framework.

**Reply 4:** This is an excellent point as vaccination hesitancy has become highly politicized and there is an emerging body of literature addressing this issue. Our goal in this paper was to highlight the impact of marginalization and privilege separate from political orientation. Given your comment, we agree that many readers will have this same thought and added a statement addressing politicization and misinformation through social media.

**Changes in the text:** In the introduction we changed the sentence *Vaccine hesitancy is a complex problem fueled by multiple sources.* to: *Vaccine hesitancy is a complex problem fueled by multiple sources, including a recent focus on the influence on political orientation (7) and misinformation spread through social media (8).*

## Reviewer C

**Comment 1:** Thank you for this powerful work that contributes to understanding the influence of social and structural inequities on vaccine hesitancy. I think this paper will contribute to the literature with more revisions.

**Reply 1:** Thank you for your thoughtful review and helpful feedback.

**Comment 2:** Title: I suggest changing “the role of inequity” to “the role of social and structural inequity” or “the role of systemic inequity”.

**Reply 2:** Thank you for this valuable suggestion. We definitely agree with your feedback that the title needed to be clear about the focus of the paper and its various subsections.

**Changes in the text:** “The role of inequity” was changed to “The role of systemic inequity” in the title and all areas where the phrase originally existed.

**Comment 3:** The term “marginalized communities” is used throughout the paper. Please take time to review the literature as there has been a shift in the language used to describe communities that have been historically subjected to oppression and oppressive systems. I suggest using the term “historically marginalized”.

**Reply 3:** We appreciate you bringing our attention to the shift in language regarding historically marginalized communities. After reviewing the literature, we certainly agree that the term “historically marginalized” better encapsulates the experiences of these communities.

**Changes in the text:** All occurrences of the phrase “marginalized communities” were replaced with the wording “historically marginalized.”

**Comment 4:** Line 64-78: I suggest adding more support from the literature on why historically marginalized communities are more vaccine hesitant. You hypothesize that inequities lead to vaccine hesitancy but provide limited evidence. This could be its own section. Your framework has an arrow from “marginalization” to the concept of “fear and mistrust of public health authority.” I suggest having a section after the “Marginalization and Vaccine Hesitancy” section labeled “Fear and Mistrust of Public Authority leads vaccine hesitancy” that would provide evidence of fear and mistrust of public authority.

**Reply 4:** Thank you for this suggestion.

**Changes in the text:** We created a “Fear and Mistrust of Public Health Authority” sub-section of the “Marginalization and Vaccine Hesitancy” section. Additionally, we added more detailed research in this section linking marginalization to vaccine hesitancy through increased fear and mistrust.

**Comment 4:** Line 99-106: I suggest adding more literature to this section. What has already been done or shown to improve vaccine hesitancy? Line 103, add evidence that this is a short-term solution. Line 104-105: provide evidence that this improves vaccine hesitancy or that there is limited research in this area.

**Reply 4:** Thank you for your insightful comment. We agree that focusing on the ways that vaccine hesitancy has been and can be addressed is a beneficial direction for this manuscript.

**Changes in the text:** We adjusted language in the abstract and introduction to frame presenting these immediate strategies as a primary goal of the manuscript. We also ended both the Marginalization and Privilege sections with research on demonstrated ways to decrease vaccine hesitancy with each population.

**Comment 5:** Line 107: Authors use the term “privilege”. This term is unclear, what do you mean by privileged? I suggest rewording this term to “Higher socioeconomic status”.

**Reply 5:** We agree that it is necessary to clarify what we mean when we say “privileged.”

**Changes in the text:** We provide a general definition of privilege in the introduction [*i.e., structural advantages resulting from membership in dominant groups (9)*], and refer specifically to race (white) and wealth in the section on privilege.

**Comment 6:** Line 147-156: Considering your framework has an arrow from “privilege” to “agency and superiority to public health authority”. This should be its own section, I suggest re-labelling to “agency and superiority to public health authority leads to vaccine hesitancy”.

**Reply 6:** Great suggestion.

**Changes in the text:** We created an “Agency and Superiority to Public Health Authority” subsection to mirror the “Fear and Mistrust of Public Health Authority” subsection in the marginalization section.

**Comment 7:** Line 157: I suggest moving this section “Framework for Future Research” up before the “Marginalization and Vaccine Hesitancy” section on line 63. Provide more detail on your framework and more rationale for why this framework is important.

**Reply 7:** This is a really powerful structural change to the manuscript!

**Changes in the text:** We created a new section after the introduction called “Framework for Understanding the Impact of Systemic Inequity on Vaccine Hesitancy” that overviews the proposed framework. We also adjusted the figure to have the marginalization pathway on top to mirror the order presented in the manuscript.