

Call out racism and inequity in reports on vaccine intentions

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The language used when reporting racial and ethnic disparities in vaccine intentions and uptake must evolve to reflect social and structural inequities. To achieve health equity, we must acknowledge the extent to which racism and health inequities serve as barriers to vaccine-seeking behaviours among people of colour.

During the early stages of the rollout of COVID-19 vaccines in the USA, uptake of COVID-19 vaccines was **higher** among White, non-Hispanic persons as compared with people of colour (that is, American Indian or Alaska Native, non-Hispanic; Black, non-Hispanic; Hispanic; and Native Hawaiian or Pacific Islander, non-Hispanic persons). These early racial and ethnic disparities in vaccination rates led many news stories, journal articles and other reports to perpetuate a narrative that disparities in the uptake of COVID-19 vaccines among people of colour were largely driven by vaccine hesitancy, while neglecting to focus on health inequities and other factors as drivers of disparities in vaccine intentions and uptake.

Vaccine hesitancy – defined as “the delay in acceptance or refusal of vaccination despite availability of vaccination services”¹ – is not unique to COVID-19 vaccines. However, the COVID-19 pandemic has reilluminated how racism and social and structural inequities in the USA negatively influence health outcomes among people of colour, laid bare by their **disproportionate burden** of SARS-CoV-2 infections and COVID-19 hospitalizations and deaths. Use of the term vaccine hesitancy in the context of COVID-19 vaccines might be perceived as placing responsibility for vaccination status on the individual, leaving historical and current social and structural inequities that affect vaccine confidence and vaccination rates unexamined and unaddressed. In a scoping review², we found that during the rollout of COVID-19 vaccines between 1 December 2020 and 30 April 2021, some news reports, articles and scientific scholarly works mentioned several contextual factors (for example, racism or health inequities) when explaining disparities in COVID-19-vaccine intentions and uptake among people of colour in the USA, whereas others included limited or no contextual factors. (At the time of writing, this scoping review is a non-peer-reviewed preprint.) What is important about the timeframe of the scoping review is that the starting date (December 2020) coincided with the initial rollout of COVID-19 vaccines in the USA and the cutoff date (30 April 2021) coincided with a critical deadline by which states were to expand eligibility of COVID-19 vaccines to all adults in the USA². The failure of the media and scientific scholars to contextualize how inequities affect vaccine intentions and uptake among people of colour



during a critical period when there was a defined goal for adult COVID-19 vaccination in the USA reveals missed opportunities to change the narrative from hesitancy and refusal toward racism and inequities that affect vaccine intentions and uptake.

Communication media (for example, scientific research and news media) can be powerful tools to help to achieve broader support for vaccines¹. Conversely, poor communication can contribute to vaccine hesitancy and negatively affect vaccine uptake¹, which underscores the vital role that the media and scientific scholars have in shaping vaccine hesitancy and vaccine uptake. To build confidence around vaccines and consequently increase COVID-19 vaccination rates in communities of colour, the communication messaging and language used to frame disparities in vaccination rates and vaccine intentions must evolve to reflect the contextual factors in which disparities exist.

Many factors can influence vaccine uptake, including vaccine hesitancy but also inequitable access to vaccines and distrust in medical systems (for example, healthcare providers), among other factors¹. In this Comment, we focus on several contextual factors that have been found to affect health-seeking behaviours, including vaccination, among people of colour.

Racism and discrimination-related factors

Racism, seen as the bedrock on which health inequities in the COVID-19 pandemic in the USA exist³, has been linked extensively to negative health outcomes among people of colour⁴. Racism is defined as “... a system of structuring opportunity and assigning value based on ... what we call “race” that unfairly disadvantages some individuals and communities, and unfairly advantages other individuals and

communities⁵. Many scholars agree that race is a social rather than biological construct, created to preserve the social hierarchy brought about by slavery in the USA^{5,6}. Thus, when the media and scientific scholars use race and ethnicity to explain disparities in COVID-19-vaccine intentions and uptake among people of colour, rather than highlighting social and structural inequities (for example, racism, discrimination and a lack of access to healthcare) that are disproportionately experienced by people of colour, this might be misperceived as providing a biological, social or cultural justification for race-based inequities. Further, this approach probably promotes and perpetuates the continued marginalization of, and discriminatory attitudes (especially racism) towards, people of colour.

The negative portrayal of people of colour in the media has long been raised as an issue⁷. For example, research contends that exposure to media, public health messages and scientific research that links race and health outcomes increases racist attitudes, alters how people perceive inequities experienced by people of colour⁸ and impairs scientific advancement and the COVID-19 response⁹.

Racism and discrimination against people of colour can take on many forms and are often imbedded in and perpetuated by long-standing social policies⁴. Moreover, the day-to-day devaluation of people of colour – as evidenced by the harmful effects of racism and inequities^{4,5} – probably fuels mistrust, and consequently may influence vaccine-seeking behaviours. Failing to highlight the influence of racism and discrimination when reporting disparities in COVID-19-vaccine intentions and uptake among people of colour places the focus on race, ethnicity and vaccine refusal, drawing attention away from systems that created and continue to perpetuate these inequities.

Trust-related factors

Experiences with racism and discrimination can lead to mistrust; however, other forms of mistrust might be specific to COVID-19 vaccines and institutions (for example, the government or healthcare providers) that are responsible for delivering equitable outcomes. Vaccine confidence, which includes the belief that vaccines are safe, effective and are part of a trustworthy medical system, is an essential determinant of vaccine acceptance¹. When trust is violated (whether rooted in a long legacy of mistreatment or ongoing racism and discrimination), vaccine intentions and uptake may be affected. When the media and scientific scholars fail to acknowledge mistrust as a factor that might influence vaccine intentions and uptake among people of colour, this places the burden on individuals to become less hesitant rather than on institutions to become more trustworthy. By the same token, situating vaccine intentions and uptake solely around mistrust ignores racism and discrimination as main drivers of inequities disproportionately experienced by people of colour.

Vaccine-safety-related factors

Trust can also extend to factors related to vaccine safety; therefore, conflating multiple forms of mistrust might leave meaningful nuances unexamined. For example, one might be accepting of vaccines in general, but delay acceptance of some vaccines owing to safety concerns. Research suggests mistrust in COVID-19 vaccines is – at least in part – a product of a legacy of unethical scientific experimentation, racist interventions in medicine and public health, and coercive government initiatives¹⁰. For many people of colour, it may be challenging to disentangle mistrust related to experiencing past and ongoing racism and discrimination from general mistrust of government and healthcare systems.

Access-related factors

Access-related barriers to COVID-19 vaccines came in many forms, possibly putting COVID-19 vaccines out of reach for millions of people of colour during the initial stages (1 December 2020–30 April 2021) of vaccine rollout. For example, distance to travel to the nearest vaccination site was suggested as an access-related barrier, given that millions of people of colour lack access to public or personal transportation¹¹. In addition, people of colour constitute a disproportionate share of those who lack adequate broadband connection or internet access at home¹², a resource that was necessary for accessing virtual vaccination appointment-booking systems early on during COVID-19 vaccine rollout. Further, a lack of access to childcare or paid time off were noted as access-related barriers; those without these resources might have been deterred from getting vaccinated¹³. Essential workers (overrepresented by people of colour) are often among the lowest paid and are more likely to have limited or no paid time off, which could cause some to choose between taking unpaid time off to get vaccinated or continuing to work and foregoing or delaying getting vaccinated. Taken together, these access-related barriers suggest that vaccine uptake is multifactorial, and includes structural inequities that place people of colour at a disadvantage for accessing COVID-19 vaccines. When access-related inequities are not examined or acknowledged by the media and scientific scholars, people of colour may be unfairly subjected to blame and stigma for their vaccination status.

Culture or language-related factors

The USA is an increasingly culturally and linguistically diverse society. People with language barriers, such as having limited English proficiency, might not be able to understand health information in English, which can create substantial challenges when accessing information about COVID-19 vaccines. Further, although the USA is diverse, this diversity is not reflected in the diversity of US physicians. For example, in 2018, for US physicians for whom race or ethnicity was known 56.2% were persons identifying as White, followed by Asian (17.1%), Hispanic or Latino (5.8%), Black (5.0%), American Indian or Alaska Native (0.3%), and Native Hawaiian or Pacific Islander (0.1%). The lack of access to culturally or linguistically appropriate resources (for example, racially and ethnically concordant healthcare providers and access to translation or interpreter services) has been linked with negative health outcomes^{14,15}. The diverse population in the USA highlights the need for media and scientific scholars to contextualize how culturally and linguistically relevant factors might affect vaccine intentions and uptake among people of colour.

Promising directions

As of June 2022, vaccination rates among Black, non-Hispanic persons and Hispanic persons were similar to White, non-Hispanic persons in the USA. This success is testament to the numerous public health strategies and efforts grounded in health equity being implemented at the national, state, local and community levels in the USA. Some of these efforts include (but are not limited to) engaging trusted messengers who are promoting vaccine education and outreach through culturally and linguistically appropriate messaging, addressing language barriers, providing internet access to make appointments and arranging transportation services to vaccination sites. This achievement serves as a reminder that in addition to focusing on the factors discussed in this Comment, strategies that include listening to and working with historically marginalized communities – rather than blaming and shaming – might help in constructing and developing an equitable vaccination programme for future public health emergencies.

Calls to action

Communication media and scientific scholarly works can be used as powerful tools to achieve broader support for vaccines or have the opposite effect, which highlights the critical role that they have in messaging and contextualizing vaccine intentions and uptake among people of colour. Given this, we propose a few calls to action for the media, scientific scholars and journals that publish on racial and ethnic disparities in vaccine intentions and uptake among people of colour – especially when using the term vaccine hesitancy. When writing about disparities in vaccine intentions and uptake, it is recommended the media, scientific scholars and journals:

- Avoid blaming people of colour, by naming racism (not race or ethnicity) as the primary risk factor for disparities in vaccine intentions and uptake.
- Name other contextual factors (for example, inequitable access and mistrust) and other related risk factors as probable alternates for these disparities.
- Acknowledge and critically examine how experiences of racism, discrimination and health inequities (and not race or ethnicity) influence vaccine-seeking behaviours among people of colour.
- Acknowledge that race is a social construct, and not a biological driver for disparities in vaccine intentions and uptake.
- Examine race and ethnicity as indicators, and not drivers, of inequities and disparities in vaccine intentions and uptake.

Conclusions

Racism and social and structural inequities function “to harm health in ways that can be described, measured, and dismantled”⁴. Similar reasoning would support the assertion that there is no credible path forward to achieve health equity without acknowledging the extent to which inequities and racism, and not race or ethnicity, serve as barriers to vaccine intentions and uptake among people of colour. As the language used when reporting disparities in vaccine intentions and uptake among people of colour evolves from the essentialism of race to reflect the racism and social and structural inequities in which COVID-19 disparities exist, we anticipate a continued increase in COVID-19 vaccine confidence and vaccine uptake.

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References

1. MacDonald, N. E. SAGE Working Group on Vaccine Hesitancy. *Vaccine* **33**, 4161–4164 (2015).
2. Wilson, R. F. et al. Preprint at <https://doi.org/10.1101/2023.01.12.23284499> (2023).
3. Laster Pirtle, W. N. *Health Educ. Behav.* **47**, 504–508 (2020).
4. Bailey, Z. D., Feldman, J. M. & Bassett, M. T. N. *Engl. J. Med.* **384**, 768–773 (2021).
5. Jones, C. P. *Phylon.* **50**, 7–22 (2002).
6. Roediger, D. R. *Historical Foundations of Race*, <https://nmaahc.si.edu/learn/talking-about-race/topics/historical-foundations-race> (National Museum of African American History and Culture, Smithsonian Institution, accessed 30 January 2023).
7. Dixon, T. L. & Linz, D. G. *Commun. Res.* **27**, 547–573 (2000).
8. Mandalaywala, T. M., Amodio, D. M. & Rhodes, M. *Soc. Psychol. Personal Sci.* **9**, 461–469 (2017).
9. Tsai, J. *Am. J. Bioeth.* **21**, 43–47 (2021).
10. Wang, Z., Rodriguez Morales, M. M., Husak, K., Kleinman, M. & Parthasarathy, S. *In Communities We Trust: Institutional Failures and Sustained Solutions for Vaccine Hesitancy* (Gerald R. Ford School of Public Policy, Univ. Michigan, 2021).
11. Bergal, J. Without a ride, many in need have no shot at Covid-19 vaccine. *pewtrusts.org*, <https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2021/02/01/without-a-ride-many-in-need-have-no-shot-at-covid-19-vaccine> (1 February 2021).
12. Turner, S. D. *Digital Denied: The Impact of Systemic Racial Discrimination on Home-Internet Adoption* (Free Press, 2016).
13. Mills, M. The biggest barriers to COVID-19 vaccination—and how to break them down. *parents.com*, <https://www.parents.com/health/coronavirus/the-biggest-barriers-to-covid-19-vaccination-and-how-to-break-them-down/> (22 June 2022).
14. Alsan, M., Garrick, O. & Graziani, G. *Am Econ Rev.* **109**, 4071–4111 (2019).
15. Karlner, L. S., Jacobs, E. A., Chen, A. H. & Mutha, S. *Health Serv. Res.* **42**, 727–754 (2007).

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Competing interests

The authors declare no competing interests.