

Peer Review

Review of: "Erosion of Trust, Polarization, and Changing Public Perceptions of Vaccines"

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This article presents a commentary on trust and polarization in relation to vaccines. It appears to focus on the US.

The information is interesting, and the topic is important. However, the article needs to be rewritten. Currently, it begins with two figures and an explanation that is incomplete, including which country the article refers to. It then goes on to focus on some of the core claims of anti-vaccination movements and why they are wrong. It needs a more conventional, focused, and logical structure that keeps to the promise of the title.

In a typical commentary, the author would set the scene in terms of the broader topic, the issue at hand, the setting, the data collected, and how. The data would be used to illustrate points made in the commentary. The data would be contextualized and critically considered to ensure it is relevant and supports the points. For example, for the data presented, which country does the data refer to? How was it collected, and are the samples representative or convenience samples? Is a survey of the general population generalizable to parents? Are parents/caregivers showing similar levels of declining trust and partisanship, and what is the evidence for this? I recommend seeking examples of commentaries from other journals to act as models for how it might look.

The article then goes on to wrestle with anti-vaccination claims and why they are wrong. This includes some slightly erroneous representation of the dynamics of vaccine effectiveness in populations, including a claim about how vaccines work that cites an article about the COVID vaccine. The information about measles vaccine effectiveness is not accurately represented. For the Samoa outbreak, this started with a misadministration of the vaccine, with measles spreading due to two cohorts of toddlers being unvaccinated combined with population gaps in immunity. It was not because of measles vaccine

effectiveness. The measles vaccines produce sterilizing immunity in most recipients, and a second dose is only needed to cover those who don't. So the effectiveness limitations are at a population, not individual level, in contrast to the COVID-19 vaccine, which doesn't produce sterilizing immunity and is mostly beneficial against severe disease.

I recommend a rewrite of the article to set the scene and keep with the social elements of vaccination referred to in the title and explore these, with a critical interaction with evidence on trust and partisanship. This would also leave more room to discuss scares referred to in the paper, which are not expanded upon. This would make a more interesting and useful commentary that provides some insights about this highly important, and now very dynamic, topic of trust in vaccination.

Declarations

Potential competing interests: No potential competing interests to declare.