Qeios

Peer Review

Review of: "The Global Polio Eradication Initiative has done well to introduce 3 doses of the Inactivated Poliovirus Vaccine in Afghanistan"

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1. Independent researcher

Technical Review: "The GPEI has done well to introduce 3 doses of IPV in Afghanistan"

1. Strengths

a. The paper clearly explains one of the biggest challenges in polio eradication: the oral polio vaccine (OPV) does not work as well in tropical settings. The comparison of results from India helps make a strong case for why the virus is still circulating despite frequent vaccination campaigns.

b. It also raises an important and honest point about vaccine-derived polioviruses (cVDPVs)—that the same vaccine used to stop polio can sometimes contribute to new outbreaks. This supports the argument for moving toward safer, inactivated vaccines like IPV.

c. The recommendation to use a hexavalent vaccine is practical and forward-looking. It could reduce the need for repeated campaigns and make better use of routine immunization services, which are often more stable in difficult settings like Afghanistan and Pakistan.

2. Areas That Need More Clarity

a. While the paper highlights the strength of IPV in preventing paralysis, it does not fully address a key gap: OPV helps stop the virus from spreading in the gut (gut mucosal immunity). The authors should explain whether high IPV coverage alone would be enough to stop transmission completely.

b. The discussion on the newer nOPV2 vaccine is also a bit one-sided. Recent evidence suggests it is more stable than older OPV versions, so acknowledging this would make the argument more balanced.

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c. Finally, the shift to hexavalent vaccines is scientifically sound but expensive. The paper would be stronger if it briefly compared these costs with the high and ongoing costs of repeated outbreak responses and campaigns.

3. Surveillance and Programme Considerations

The suggestion to stop environmental surveillance one year after OPV withdrawal may be too optimistic. A longer period (around three years) would be safer to ensure the virus is no longer circulating silently.

4. Key Suggestions for Improvement

- Strengthen the case for switching to hexavalent vaccines by linking it to reducing missed opportunities for vaccination at health facilities.
- Provide clearer guidance on how to manage the transition period from OPV to IPV to avoid a rise in vaccine-derived outbreaks.

Final Verdict

Accept with minor revisions.

This is a strong and important paper that challenges the current approach and promotes a more science-driven strategy for polio eradication. With a few clarifications and a more balanced discussion in key areas, it will make a valuable contribution to the global “endgame” efforts.

Declarations

Potential competing interests: No potential competing interests to declare.