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Peer Review

# Review of: "Integrated Determinants of Persistent Wild Poliovirus Transmission in Pakistan and Afghanistan: The Roles of Cross-Border Mobility, Hard-to-Reach Populations, and Micro-Transmission Hotspots, 2010-2025"

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This is a well-structured and timely scoping review that addresses one of the most critical remaining challenges in global polio eradication. The manuscript is generally well-organized and provides a useful synthesis of factors contributing to continued transmission, including cross-border mobility, vaccination gaps, and localized transmission hotspots.

However, some aspects of the manuscript require clarification, methodological strengthening, and language refinement.

1. Write the full meaning followed by this abbreviation “cVDPV2” in parentheses where it was first mentioned in the abstract.

2. Consistently use “Pakistan and Afghanistan” rather than switching the order.

3. Since your study aimed to provide evidence to inform targeted strategies to accelerate WPV interruption in the region under study, you should also look at governance issues and international funding dynamics, which are also central drivers of polio persistence. I suggest you also include governance issues and international funding dynamics as part of the determinants of eradication failure.

4. You can include epidemiological data in a table comparing trends of transmission over time in Pakistan and Afghanistan, if available, and also a table on the global incidence of WPV showing how it declined over the period under review in other countries but not in Pakistan and Afghanistan.



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5. The study covers literature from 2010–2025, but the manuscript does not justify why this time range was selected. The authors should explain whether this period corresponds to: a specific phase in polio eradication strategy, major vaccination policy changes, or improvements in genomic surveillance.

6. The concept of micro-transmission hotspots is important but not sufficiently developed. The authors should: define how hotspots are identified and discuss surveillance tools used to confirm micro-transmission hotspots.

7. The manuscript briefly mentions eradication challenges but does not sufficiently translate findings into policy recommendations. The discussion could be strengthened by including practical recommendations such as: operational strategies for vaccination in conflict areas, improved surveillance mechanisms, and improving community engagement to address vaccine hesitancy.

## Declarations

**Potential competing interests:** No potential competing interests to declare.