

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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Reviewer Comments

A. Title

The title is informative but overly long. Consider shortening it for clarity and specify whether data in the timeframe (2010–2025) represent provisional findings or published evidence.

B. Abstract

1. The abstract states that a scoping review following PRISMA-ScR guidelines was conducted, yet quantitative estimates are presented (e.g., >85% genetic linkage, coverage ranges, hotspot counts). Scoping reviews typically map evidence rather than synthesize estimates. Clarify whether these figures are single-study findings, medians across studies, or narrative summaries, and avoid pseudo-quantitative certainty if no formal synthesis was performed.
2. Key terms lack definition. Brief operational clarity for phrases such as “micro-transmission hotspots,” “hard-to-reach populations,” and “single epidemiological block” would improve interpretability.
3. The results section is dense. Readability could be improved by structuring findings into thematic categories (e.g., mobility, immunity gaps, surveillance).

4. The conclusion is strong, but the final sentence linking WPV1 interruption to the cVDPV2 emergency may appear inferential. A more cautious phrasing would strengthen scientific balance.
5. Spell out acronyms at first use (e.g., GPEI) and ensure consistent WPV1 terminology.

C. Introduction

Comprehensive but overly long; consider reducing background detail.

D. Methodology

Key methodological details are missing, including full search strings, screening platform/software, and appraisal of grey literature. Given reliance on programmatic reports, transparency is essential to avoid selection bias.

E. Critical Appraisal

No quality assessment or risk-of-bias approach is presented. Either conduct a structured appraisal or clearly state that evidence quality was not assessed and temper conclusions accordingly.

F. Results and Discussion

Findings (e.g., Karachi, Peshawar, Quetta hotspots; cross-border movement) are repeated, leading to redundancy rather than advancing interpretation. Statements such as “Operational constraints were associated with higher case counts” or “Rapid WPV1 interruption is the single most effective way to end cVDPV2” imply causality beyond the scope of a scoping review. Reframe to reflect association or hypothesis unless supported by explicit analytic methods.

G. Scope

Although focused on WPV1, extensive discussion of cVDPV2 shifts the scope and may dilute the primary aim. The link between WPV1 persistence and cVDPV2 emergence requires clearer mechanistic framing.

H. Tables

Tables 4 and 5 summarize hotspots and operational constraints but appear highly synthesized. Clarify whether categorizations are supported by all included studies or represent author interpretation. Provide explicit sourcing or restructure as narrative synthesis.

I. References

Some references are indirectly related to Pakistan/Afghanistan WPV1 dynamics. Distinguish direct empirical evidence from contextual literature and extrapolative examples.

J. Style and Presentation

Several typographical errors persist, and sentences are overly long and dense. Ensure consistent

reporting of percentages and ranges, clarify whether 2025 data are finalized or provisional, and reduce duplication across results and discussion.

Declarations

Potential competing interests: No potential competing interests to declare.