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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 paper presents a comprehensive synthesis of multi-source evidence (genomic, serological, environmental surveillance) with a timely analysis covering 2010-2025, including very recent data from Pakistan & Afghanistan as a single epidemiological block. However, there are some crucial points that need to be addressed.

-As a scoping review, no formal quality assessment of included studies was performed, risking the inclusion of methodologically weak evidence without appropriate caveats.

-Evidence disproportionately concentrates on urban centres (Karachi, Peshawar, Quetta, Kandahar), leaving rural and nomadic populations, explicitly identified as high-risk, underrepresented in the analysis.

-There is also an over-reliance on modelled estimates. Several critical claims (e.g., "2.1-3.4 million children affected annually") cite modelling studies without triangulation with primary data, introducing uncertainty that is not adequately addressed.

-Tables present coverage percentages without confidence intervals or sample sizes, obscuring the precision of estimates, which is particularly problematic for seroprevalence data showing narrow ranges.

-While acknowledging incomplete surveillance in conflict areas, the review does not systematically assess how this missing data might bias conclusions about transmission patterns.

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-The narrative synthesis lacks counter-evidence. The paper does not adequately discuss studies that might contradict or complicate the dominant findings, particularly regarding vaccine effectiveness in hotspot areas.

These are notable weaknesses in the paper that make it difficult to publish.

Declarations

Potential competing interests: No potential competing interests to declare.