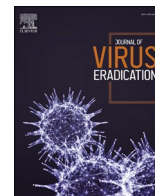




Contents lists available at ScienceDirect

Journal of Virus Eradication

journal homepage: www.sciencedirect.com/journal/journal-of-virus-eradication

Viewpoint

Polio eradication in Pakistan: Hope against hope or are we near eradication?

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ARTICLE INFO

Keywords:

Polio
Eradication
Pakistan
Afghanistan
Challenges

Dear Editor

Globally Pakistan remains one of only two countries along with Afghanistan with ongoing endemic transmission of wild poliovirus (WPV). It has remained a threatening and challenging health issue in Pakistan over the years and an alarming threat to other countries.^{1–4} Recently, according to the United Kingdom Health Security Agency, waste samples from London tested positive for vaccine-derived poliovirus, which creates another challenge for the polio-free world.^{5,6} On July 18th, 2022, poliovirus was confirmed in an unvaccinated immunocompetent adult resident of New York hospitalized with flaccid lower limb weakness. Vaccine-derived poliovirus type 2 was isolated from the patient and identified from wastewater samples in two neighboring New York counties.⁷ Health officials called it the “tip of iceberg” because detection of one such case meant that there might be many more undiagnosed ones in asymptomatic individuals.⁸ At this time circulating vaccine derived poliovirus were detected in countries where poliomyelitis had long been eradicated.⁹ Although coronavirus disease 2019 (COVID-19) pandemic (2020–2022) has globally decreased some of the routine immunizations and surveillance, polio eradication from Pakistan and Afghanistan remains imperative to achieve a polio-free world and cannot lead to further delays or complacency.^{10–12} If poliovirus continues to spread in these endemic countries, others, particularly those with weak public health and immunization systems or with connections to countries where it remains endemic, are at risk of transmission, such

as the initial reports of WPV1 cases in 2022 in Malawi and Mozambique and undermine the polio success worldwide and the ultimate eradication goal.^{13–16}

An online search was conducted in the Web of Science Core Collection database using the keyword “polio”. The top leading countries in terms of publications were the United States of America (USA), India, England, Switzerland, and Sweden (Fig. 1a). Pakistan ranked 6th in polio research and had the strongest collaboration with the USA (Fig. 1b). Most studied topics were eradication, poliomyelitis, progress, children, immunization, and vaccine (Fig. 1c).

We suggest that Pakistan and Afghanistan would benefit from the experience in recent times of other polio-free countries from the region. Pakistan’s polio eradication strategy faces numerous challenges, including low literacy, vaccine myths, conspiracy theories, people’s skepticism, lack of facilities to maintain vaccine efficacy, and target killing of polio workers.^{17–19} Besides public health measures for polio prevention and containment, policies such as increasing literacy, dispelling people’s misconceptions, and engaging the local community with campaigns that raise awareness about the importance of polio immunization and other vaccine preventable diseases, identifying and involving local leaders including teachers, mosque chiefs, religious scholars, and politicians in planning and spreading awareness through seminars and debates, should be considered. Celebrities, and community influencers could advocate for immunization. Small incentives such as stickers or certificates for children who have received immunization

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<https://doi.org/10.1016/j.jve.2024.100371>

Received 25 August 2022; Received in revised form 29 March 2024; Accepted 2 April 2024

Available online 7 April 2024

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