An Overview of the Progress towards Achieving Global Polio Eradication.

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Research Summary

Background

Poliomyelitis is an infectious disease that causes irreversible paralysis in less than 1% of infected individuals.[1] Since 1988, the Global Polio Eradication Initiative was able to achieve significant progress towards the interruption of polio transmission.[2] However, the latest plan under Global Polio Eradication Initiative, known as the Polio Eradication and Endgame Strategic Plan, is still facing unprecedented challenges with the remaining cases in polio endemic countries. Such challenges are prominently faced in areas with regional instability and mass population displacements, resulting in polio outbreaks and re-importation due to low immunization coverage, and inadequate surveillance.[3,4]

Methods

A comprehensive literature review was completed through different databases that included Global Health, Embase, Medline, Science Direct and Google Scholar for the following key terms: 'polio*', 'vaccin*', 'Afghanistan', 'Pakistan', 'import*', 'refusal', 'outbreak', 'eradication', 'endgame ', 'conflict', 'risk', 'surveillance', 'spread', and 'challenge*'. A review search of published reports and archives from GPEI, CDC, WHO, UNICEF, End Polio Pakistan was also conducted and included as part of the assessment of recent progress with polio eradication.

Discussion

There are remaining gaps towards achieving polio eradication, especially in endemic regions. A series of recommendations are proposed to overcome ongoing barriers involving the political, social, biological and financial aspects of polio campaigns. To overcome the setbacks that led to delaying previously set goals by GPEI, a more vigorous response, with an alteration from the current approach will be required to overcome ongoing challenges. The response involves an improved and expanded surveillance system through better addition, better interventions are needed to address vaccine coverage, efficacy, safety, management, and supply, especially in regions with high risk of polio transmission and refusal rates in remaining endemic countries.[7,8]

Conclusion

Through applying suggested recommendations, the current approach towards polio campaigns can be modified to achieve and sustain polio eradication.
The rooms of improvement can assist in refining immunization coverage, enhancing vaccine administration and effectiveness, avoiding delays in outbreak response, and providing reliable feedback on the progress of GPEI. These extensive efforts will not only improve the progress towards achieving polio eradication, but would also serve as a tool to limit the burden of other communicable diseases.

Global Health Relevancy/Global Health Impact

- Highlight the current progress of global polio eradication and its related challenges to propose extended measures required to halt and eradicate the proliferation of poliovirus in endemic and non-endemic regions.

- Demonstrate the effect of regional violence on the quality and coverage of vaccination campaigns.

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Research Summary, *cont'd*

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