



Recommended Strategies to Move Closer Toward the Global Eradication of Polio: International Health Regulations

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DEAR EDITOR,

Polio was once considered a fearsome disease with a tendency to strike suddenly and paralyze millions of children for their entire lifetime.^[1] However, in response to the Global Polio Eradication Initiative, assistance from the World Health Organization, and support from various stakeholders (viz., policy makers, health personnel, nongovernmental organizations, etc.), the number of polio cases have been reduced by more than 99% when compared with 1998 estimates.^[2] However, there is a definitive potential risk of spread of polio from these nations to other nations that have less than adequate vaccination.^[1-3]

Unlike most other infectious diseases, polio can be completely eradicated as none of the three strains of wild poliovirus can survive outside the human body for longer durations and will die, if they cannot infect a susceptible individual.^[4] Further, type 2 wild poliovirus has already been eradicated in the year 1999 while very few cases attributed to type 3 wild poliovirus have been reported in the recent years.^[1,4] In fact, other than Nigeria (in which last wild polio case was detected 1 year back), only two countries—Pakistan and Afghanistan—are remaining where polio transmission has never been interrupted.^[2,3] Most of these improvements and reduction in the incidence of polio cases on the global platform has been observed following the declaration of polio as a Public Health Emergency of International Concern.^[1,2]

Even though in 2015, less than a third of the number of cases have been reported in Pakistan (in contrast to the number of cases in the similar interval in 2014) with no exportation of wild poliovirus cases since October 2014 and a significant decline in the number of unimmunized

children, still Pakistan alone accounts for almost 85% of all global wild poliovirus cases in the current year.^[2] On the contrary, Afghanistan has reported international spread of wild poliovirus even in 2015 (viz., two cases to Quetta and Sindh regions of Pakistan).^[2] This is mainly because of the weak public health systems, noncompliance with the International Health Regulations (IHR) recommendations for the international air travelers (viz., measures not implemented uniformly for all ages, no tracking of the vaccination status of travellers, no exit screening or restriction on unvaccinated travellers, etc.), sharing of a common zone of poliovirus transmission between the two nations, suspension of mass vaccination campaigns in the Kandahar region, and poor sanitation facilities.^[1,2]

In an attempt to expedite the process of global eradication of polio and to address the existing deficient mechanisms, a wide range of recommendations has been proposed by the IHR emergency committee.^[2] These recommendations have been broadly divided into three major categories, namely states currently exporting wild poliovirus (Pakistan and Afghanistan); states infected with wild poliovirus, but not currently exporting (Nigeria and Somalia); and states no longer infected by wild poliovirus, but which remain vulnerable to international spread (Ethiopia, Syria, etc.).^[2] For the first two categories of nations, it has been advocated that these should declare interruption of poliovirus transmission as a national public health emergency; administer to all residents or long-term visitors (more than 4 weeks), a dose of oral poliovirus vaccine (OPV) or inactivated poliovirus vaccine (IPV) between 4 weeks and 1 year prior to international travel; ensure receiving of OPV/IPV to even urgent travelers; provision of an international certificate of vaccination or prophylaxis to the travelers;

restrict departure of travelers who lack the necessary documents at the point of departure; improve level of coordination at various levels to strengthen cross-border efforts; sustain these measures until at least 6 months have passed without new exportations; and provide monthly (currently exporting) or once in a year (not currently exporting) report to IHR about the implementation of recommendations.^[2,5]

However, the nations that are no longer infected by wild poliovirus but are still vulnerable to international spread should strengthen their routine vaccination and surveillance mechanism, especially among the mobile and vulnerable populations; enhance the level of cooperation and cross-border coordination to enable prompt detection of wild poliovirus and vaccination of high-risk population groups; and provide a comprehensive report every year regarding prevention and control measures.^[2,6] In addition, implementation of cost-effective measures to neutralize the existing insecurity and inaccessibility to the healthcare services, especially in the conflict-affected nations can also prevent a major outbreak of wild poliovirus.^[4-6]

To conclude, a critical end stage has been achieved by the world for global polio eradication and any form of ignorance can either reverse or even prevent the world from achieving this goal. Thus, it is high time that both affected nations and even other nations continue to work according to the laid recommendations so that polio eradication can be achieved.

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