

Polio: The Fight to Eradicate a Global Health Threat



Polio, or poliomyelitis, is a highly contagious disease caused by poliovirus, it primarily affects children under five. Transmission occurs mainly through person-to-person contact, primarily via the fecal-oral route. Less frequently, it can also be transmitted by a common vehicle, such as contaminated water or food. The poliovirus can easily be reintroduced into a country that has been declared free of the disease and can spread rapidly among populations that have not been immunized.

Signs and Symptoms

The initial symptoms of the disease include fever, fatigue, headache, vomiting, neck stiffness, and limb pain. These symptoms typically last for 2 - 10 days. In a small proportion of cases, the virus causes paralysis, often affecting the legs, and this paralysis is usually permanent. The paralysis can occur as quickly as within a few hours of infection. Among individuals who experience paralysis as a result of the virus, 5 - 10% will suffer fatal respiratory failure due to the immobilization of their breathing muscles.

Treatment

The principal objective of polio treatments is to limit the severity of symptoms and provide relief. Physical therapy can also be employed to stimulate muscle function. These approaches can enhance mobility, although they do not reverse the irreversible muscle weakness and paralysis associated with polio.

The only method of preventing polio is through immunization, repeated doses of polio vaccine provide lifelong protection for children. The success of the polio vaccination program has

significantly minimized the impact of the disease. Moreover, vaccination is a crucial component of the global initiative to eradicate polio.

The eradication of polio is based on two principal strategies: the administration of the oral polio vaccine as part of routine immunization and the implementation of mass vaccination campaigns to supplement this routine coverage. The Polio Eradication Strategy for the period 2022-2026 provides a detailed set of measures that will enable the Global Polio Eradication Initiative (GPEI) to fulfill the pledge that united the global community in a joint commitment to eradicate polio. The implementation of these measures aims to reinforce and empower the GPEI. The Strategy emphasizes enhancing performance across the board, including the utilization of established eradication tools and building blocks that have previously succeeded in eradicating the disease in 99% of the world. Once the eradication of polio has been certified, the strategy will provide guidance on the activities and functions that must be sustained to maintain a polio-free world.

Source:

World Health Organization. 2023. Poliomyelitis

World Health Organization. 2019. Polio: eradication: report by the Director-General

Teply, V., Šrámová, H. & Švandová, E. (1976). Booster effect of Sabin poliomyelitis vaccine. *Bulletin of the World Health Organization*, 54 (6), 681 - 684.