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Commentary

We're 99% there

Now is the time for final push to end polio forever

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Polio once inspired fear and dread among Americans. Now, we're 99% of the way to achieving polio eradication. But the last 1% is the hardest to overcome.

During the first half of the 1950s, more than 15,000 people annually, generally children, were paralyzed, most for life. The development of inactivated polio vaccine (IPV) by Jonas Salk followed by development of live attenuated oral polio vaccine by Albert Sabin offered the potential to prevent poliomyelitis. The last polio outbreak in the United States occurred in 1979.

The Global Polio Eradication Initiative, a public-private partnership led by national governments, was launched in 1988 by the World Health Organization, UNICEF, Rotary International and the Centers for Disease Control and Prevention. At that time, an estimated 350,000 paralytic cases occurred annually, and 125 countries were considered polio endemic.

Remarkable progress has been made, with fewer than 1,000 polio cases reported worldwide in 2011. The last case of naturally acquired wild type 2 polio, one of three poliovirus serotypes, was detected in 1999, implying this serotype is eradicated.

Only three countries, Pakistan, Nigeria and Afghanistan, have never interrupted indigenous polio transmission. As long as any wild polioviruses circulate, they can be introduced anywhere. China, which had been polio-free since 1999, was re-infected from Pakistan in 2011.

The United States remains at risk of polio outbreaks, and pediatricians should sustain support of global polio eradication efforts. Pediatricians tempted to defer IPV when parents desire alternative immunization schedules should be aware that undervaccinated children could sustain transmission if polioviruses are introduced. The last U.S. polio outbreaks occurred among groups that opposed immunization. Americans traveling abroad can be infected and bring the virus back. It is critical to immunize patients traveling to countries at risk of polio.

U.S. pediatricians tempted to defer the inactivated polio vaccine when parents desire alternative immunization schedules should be aware that undervaccinated children could sustain transmission if polioviruses are introduced.

Pediatricians can support polio eradication locally by continuing to assure high levels of immunization coverage in their patients. They should consider polio in the differential diagnosis for acute flaccid paralysis with fever and immediately report possible cases to the health department.

Partnerships with others in communities (e.g., Rotary Clubs) are crucial to help support polio eradication efforts. The benefits of this support would extend beyond polio, building a cadre of trained public health workers and laboratory networks ready to take on other challenges, and demonstrating that the world can unite to prevent global illness.

RESOURCES

- Global Polio Eradication Initiative: www.polioeradication.org
- U.N. Foundation Shot at Life: http://shotatlife.org/
- AAP polio vaccination recommendations: http://aappolicy.aappublications.org/cgi/reprint/pediatrics;128/4/805.pdf
- Rotary International: http://www.rotary.org/en/EndPolio/ Pages/ridefault.aspx
- *Red Book Online*: http://aapredbook.aappublications.org/cgi/content/full/2009/1/3.104

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