Global polio cases are at an all-time low.

In 2012, the world saw fewer polio cases in fewer countries than ever before (Figure 1). India, long regarded as the most difficult place to end polio, has not recorded a case in more than two years. Outbreaks in re-infected countries have nearly all been stopped, with Angola and the Democratic Republic of the Congo regaining polio-free status in the last year.

The three remaining endemic countries—Afghanistan, Pakistan and Nigeria—launched Emergency Action Plans in 2012 to boost vaccination coverage to levels necessary to stop polio transmission and are already seeing results. Afghanistan, for example, significantly reduced the number of children missed by vaccination campaigns last year (Figure 2).

The Eradication and Endgame Strategic Plan is a comprehensive, long-term strategy that addresses what is needed to eradicate polio by 2018. The plan was developed by the Global Polio Eradication Initiative (GPEI)—a partnership launched in 1988 to guide the world’s polio efforts, spearheaded by the World Health Organization, Rotary International, the US Centers for Disease Control and Prevention and UNICEF, with support from the Bill & Melinda Gates Foundation. While developing the plan, the GPEI engaged in extensive consultations with national health authorities, global health initiatives, scientific experts, donors and other stakeholders.

This plan differs from previous GPEI plans in several important ways. It:

- **Routine Immunization** Places an urgent emphasis on strengthening routine immunization to boost immunity and aid in the introduction of new vaccines, including polio vaccines.
- **Vaccine Switch** Addresses both wild and vaccine-derived poliovirus (VDPV), using a global vaccine switch to manage long-term poliovirus risks and potentially accelerate wild poliovirus eradication.
- **Risk Mitigation** Anticipates and prepares for potential challenges, particularly insecurity, to enable rapid responses to obstacles and avoid delays.
- **Concrete Timeline** Employs rigorous data analysis of recent progress to project a concrete, realistic timeline and budget to reach eradication.
- **Lessons Learned** Builds upon recent successes in India and endemic countries and provides strategies for overcoming potential obstacles.
- **Legacy Planning** Prepares to transfer the polio program’s knowledge, assets and infrastructure to benefit other health initiatives.
The Strategic Plan involves four objectives, which the GPEI will pursue simultaneously.

**OBJECTIVE 1. Detect and Interrupt Poliovirus.** The plan provides a strategy to interrupt all wild poliovirus transmission by the end of 2014 by:

- Improving immunization campaigns to boost immunity
- Heightening surveillance to detect circulating virus
- Responding rapidly to outbreaks to prevent spread

This strategy involves building upon India’s successful approach to polio eradication, which employed innovative methods for overcoming challenges and improving immunization campaigns. The three remaining endemic countries are already seeing results from implementing Emergency Action Plans that incorporate these and other strategies. In 2012, Nigeria increased the percentage of high-risk communities reaching target vaccination levels from 10% to 70% (Figure 3).

**OPV vs. IPV**
Oral polio vaccines (OPV) contain live, weakened virus, which can – on very rare occasions – revert to a paralytic form and regain the ability to circulate. Replacing OPV with inactivated polio vaccines (IPV), which carry no risk of paralysis, is necessary to ensure a polio-free world. The plan lays out a staged approach to complete this switch, which will be coordinated across 144 countries and includes phasing out the different types of OPV and introducing IPV into routine immunization programs. The plan presents strategies for developing affordable IPV, which is currently too expensive for many low-income countries.

**OBJECTIVE 2. Strengthen Routine Immunization and Withdraw OPV.** The plan highlights strengthening routine immunization (RI) as a critical element of eradication efforts. Strengthening RI boosts immunity to minimize the risk and extent of outbreaks and provides a platform for introducing new vaccines. The plan lays out a clear strategy for leveraging GPEI best practices and infrastructure to strengthen RI. For example, the polio program’s detailed population maps and microplans can be used to improve RI planning. The GPEI will work closely with GAVI to accomplish this objective.

To eliminate the risk of vaccine-derived poliovirus (VDPV), the plan introduces a strategy to replace oral polio vaccines (OPV) with inactivated polio vaccines (IPV). Strong RI programs will be critical for the rapid and successful introduction of these new vaccines.

**OBJECTIVE 3. Contain and Certify.** Before certifying eradication, laboratories and vaccine-production facilities worldwide must properly contain all virus samples to protect against future outbreaks. Both recently infected and polio-free countries must address gaps in surveillance in order to detect suspected polio cases and confirm that transmission has been stopped. All regions must surpass three years without a case to attain polio-free status, with eradication certification possible the following year.

**OBJECTIVE 4. Plan Polio’s Legacy.** The polio program provides a blueprint for accessing the most marginalized and hard-to-reach communities in the world. Sharing this expertise can benefit other health and development initiatives. For example, according to a 2010 study published in *Vaccine*, the program is estimated to have already produced tens of billions of dollars in savings by delivering vitamin A during polio campaigns. The program’s sophisticated global surveillance and response network is used to combat other vaccine-preventable diseases, as well as to provide assistance during humanitarian emergencies. The plan calls for the responsible transfer of the polio program’s assets to ensure lasting public health benefits.

The Strategic Plan presents a concrete timeline for eradication and prepares in advance for potential challenges.

The plan identifies and prepares for six main risks.

<table>
<thead>
<tr>
<th>Input Risks</th>
<th>Implementation Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insufficient funding</td>
<td>Inability to operate in areas of insecurity</td>
</tr>
<tr>
<td>Inability to recruit and/or retain the necessary staff</td>
<td>Decline in political and/or social will</td>
</tr>
<tr>
<td>Insufficient supply of appropriate vaccines</td>
<td>Lack of accountability for quality activities</td>
</tr>
</tbody>
</table>

The GPEI used rigorous data analysis to establish a realistic eradication timeline (Figure 4). Learning from past experience, the GPEI anticipates potential obstacles that could interfere with this timeline and develops strategies to avoid and respond to them. For example, the plan lays out a framework for operating safely in insecure areas, including coordinating closely with security services, addressing societal concerns and increasing demand for polio vaccines.

**Figure 3: Polio Vaccination Coverage, Select High Risk Areas, Nigeria, 2012**

Among 100 high-risk areas sampled, Nigeria increased the percentage of communities reaching target vaccination coverage levels from 10% to 70% between Feb. 2012 and Feb. 2013.

Source: WHO
Upfront commitment to fully fund the plan is critical for eradicating polio by 2018.

Funding the Eradication and Endgame Strategic Plan will cost the global community US$5.5 billion (Figure 5), which will be raised from multiple sources—including existing and new donors—and through innovative financing mechanisms. The Vaccine study estimated that the GPEI’s efforts could save the world $40-50 billion.

Upfront commitments for full funding give certainty to the GPEI program. The assurance of full funding allows the GPEI to execute the long-term components of the plan instead of solely focusing on interrupting transmission. They also help protect the gains against polio achieved to date, maximizing return on investment.

Assurance of full funding:

- Enables advance planning for late-stage activities, ensuring they can be carried out promptly and efficiently.
- Increases operational certainty, protecting programs from being delayed or cancelled.
- Maximizes health impact by enabling program extensions that benefit other health initiatives.
- Sharpens focus, allowing the GPEI to concentrate on eradication activities instead of fundraising or preparing for funding shortages.

Figure 5: Eradication and Endgame Strategic Plan Budget, 2013-2018

Source: WHO

Upfront commitment to fully fund the plan is critical for eradicating polio by 2018.

Pursuing all four objectives simultaneously reduces the timeline for and overall cost of eradication.

Source: WHO

IPV in Routine Immunization: Introduced globally beginning in 2015.
Research & Development: Funds development of new vaccines, drugs, diagnostics and other tools to address remaining challenges.

Other: Indirect costs.

Emergency Response: Enables immediate and full-scale responses to any outbreaks. Includes funding for social mobilization, vaccine stockpiles and operational costs.

Surveillance and Laboratory Costs: Supports intensified global surveillance efforts to identify and respond to all remaining poliovirus, and containment and certification procedures.

Quality Improvement/Community Mobilization: Expands program capacity to vaccinate all children by funding community engagement, social mobilization, quality improvement, program innovations, and surge capacity.*

Technical Assistance: Provides on-the-ground staff support to improve campaign quality.

OPV Campaigns: Covers 6-8 immunization campaigns per year in endemic countries & 2-4 in other high-risk areas. OPV usage will gradually decrease after wild poliovirus transmission is interrupted in 2014.

*Also includes some funding for risk management and full OPV withdrawal once transmission is interrupted.