# Table of contents

1. Executive Summary ................................................. 5  
2. Highlights & challenges 2004 .................................... 7  
3. Advocacy .................................................................. 12

**Strategic objectives:**  
4. Interruption of poliovirus transmission ..................... 15  
   a. Asia achieves strong progress ............................... 18  
   b. Africa: strong progress in Egypt but resurgence of polio elsewhere ................................. 19  
5. Certification of global polio eradication .................... 24  
6. Global OPV cessation ................................................ 30  
7. Mainstreaming of the Global Polio Eradication Initiative ............................................................... 33  
8. Polio Financing .......................................................... 36  
9. Prospects for 2005 ...................................................... 41  
10. Glossary of terms ...................................................... 44
1. Executive Summary

2004 saw the most important progress ever made towards the goal of a polio-free world. In Asia, cases were nearly halved compared with the previous year. In Africa, the polio eradication effort was put back on track, following the resumption of immunization in Kano, Nigeria (which had been suspended due to unfounded concerns as to the safety of the polio vaccine) and the African Union's (AU) synchronization of polio immunization campaigns across 23 countries of that continent. Of critical importance, full ‘intensified’ polio eradication activities in the first half of 2005 were able to go ahead, thanks to generous financial contributions by existing and new donors.

Overall, since its 1988 launch, the Global Polio Eradication Initiative has achieved strong progress, reducing the incidence of polio by more than 99 percent, to 1,265 cases in 2004. Only six countries continue to have endemic transmission of indigenous wild poliovirus (Nigeria, India, Pakistan, Niger, Afghanistan and Egypt). The fragility of that progress was again evidenced by the further spread of the polio outbreak in west and central Africa to 14 previously polio-free countries, resulting in 257 of the 1,265 cases reported worldwide. In six of the 14 countries, population immunity levels were not high enough to prevent the re-establishment of transmission of the imported wild poliovirus (Burkina Faso, Central African Republic, Chad, Côte d’Ivoire, Mali and Sudan), requiring additional campaigns. Such importations are not the greatest threat to the global eradication effort, as long as high-quality immunization campaigns are rapidly implemented in response.

2004 saw the most important progress ever made towards the goal of a polio-free world

In the face of these importations, the international community united in an unprecedented way to protect the collective investment in the global public good of polio eradication. In January, health ministers of the remaining polio endemic countries committed to stopping polio by signing the ‘Geneva Declaration for the Eradication of Poliomyelitis’. Polio immunization campaigns were further intensified in Asia, with activities conducted on average every six weeks in the highest-risk areas. In Africa, the continent united in response to the polio epidemic, with the AU’s conceived and conducted programme of synchronized immunization campaigns in 23 countries in October and November, reaching more than 80 million children. And following a very tight cash flow, donors re-committed to the
polio eradication effort, providing new funding of US$ 166 million between June 2004 and January 2005.

In India and Egypt, where poliovirus transmission was increasingly limited to type 1 poliovirus, national technical advisory groups recommended the rapid introduction of monovalent oral polio vaccine type 1 (mOPV1), to facilitate interruption of the final chains of transmission. Private sector polio vaccine producers and national regulatory authorities responded by developing and licensing the new vaccine in record time. Use of mOPV1 was scheduled nationwide in Egypt May 2005, and in those areas of India with ongoing poliovirus transmission.

Because of this progress, the stage is now set for global eradication of polio. As the world advances towards polio eradication, preparations are also proceeding for the eventual, simultaneous cessation of oral polio vaccine (OPV) use in routine immunization programmes. A framework document for national policy makers in OPV-using countries was developed in 2004 and will be published by mid-2005, outlining the rationale, risks, prerequisites and potential timetable for the global cessation of OPV.
2. Highlights & challenges 2004

Highlights

Ministers of health sign ‘Geneva Declaration’ to eradicate polio

The year 2004 began with an unprecedented display of political commitment to polio eradication. Convening in Geneva on 15 January, ministers of health of the six remaining polio-endemic countries (Nigeria, India, Pakistan, Niger, Afghanistan and Egypt) publicly committed to an intensification of immunization campaigns to eradicate polio within the year, by signing the Geneva Declaration for the Eradication of Poliomyelitis.

UN Secretary-General Kofi Annan congratulated delegates by video on their ongoing commitment, and referred to the Global Polio Eradication Initiative as “a shining model of how we can come together against a common enemy of humankind”. Although transmission of wild poliovirus continued beyond 2004, all countries intensified their polio eradication activities. Strong progress was measured, particularly in Asia and North Africa.

Health ministers from the six remaining polio-endemic countries declare commitment to eradicate polio with the signing of the Geneva Declaration.
“The Global Polio Eradication Initiative is a shining model of how we can come together against a common enemy of humankind.”

UN Secretary-General Kofi Annan addresses delegates at the 15 January meeting of health ministers in Geneva.

Launch of new Strategic Plan
Developed in the latter half of 2003, the Global Polio Eradication Initiative Strategic Plan 2004-2008 was officially launched in January 2004. The Strategic Plan outlines the activities required to interrupt poliovirus transmission, achieve global certification and mainstream the Global Polio Eradication Initiative, and prepares for global cessation of routine oral polio vaccine (OPV) use, after polio eradication has been achieved. The Strategic Plan reflects the revised timeframe for certification of eradication, and the decision to stop immunization with OPV globally as soon as possible after global certification.

Polio cases halved in Asia
Following an intensification of polio campaigns in India, Pakistan and Afghanistan, strong progress was achieved, especially in the traditional reservoirs of India and Pakistan. Cases nearly halved compared with 2003; 191 reported in 2004, compared to 336 in the previous year. India made particular progress, with transmission confined to several key districts and no longer covering larger areas or entire states.
OPV controversy resolved in Nigeria
On 31 July 2004, following a twelve-month suspension of polio immunization activities, the Governor of Kano, Mallam Ibrahim Shekarau, officially re-launched polio vaccinations. Immunizations were suspended in 2003 due to unfounded rumours regarding the safety of the oral polio vaccine. Collaboration between state and federal authorities led to the resumption of activities.

Africa launches largest-ever immunization campaign
Following the resumption of polio vaccinations in northern Nigeria, 1 million vaccinators in 23 countries across west and central Africa participated in what became the largest immunization campaign in the continent’s history. More than 80 million children were vaccinated in October and again in November. The campaigns were officially launched in Kano, Nigeria, by President Olusegun Obasanjo, and Chairman of the African Union Commission Professor Alpha Oumar Konaré. All countries committed to continuing the intensification of synchronized campaigns throughout 2005.

Technical oversight body confirms that OPV must be stopped after global eradication
Convening in Geneva in September, the independent technical oversight body of the Global Polio Eradication Initiative, the Advisory Committee for Polio Eradication (ACPE), concluded that eradicating all forms of poliomyelitis paralysis will require eventually stopping use of OPV globally and that the cessation of OPV must be implemented simultaneously across the world. Prospects for 2005 provides further information on OPV cessation.

Unprecedented donor support helps ‘tight cash flow’
Following a tight cash flow situation in the second half of 2004, the Global Polio Eradication Initiative received significant funding from both new and existing donors, notably the European Commission, the Government of Sweden and the Government of Canada, ensuring that Q1-2 2005 activities could go ahead as planned. As at April 2005, the Global Polio Eradication Initiative was seeking to fill a US$ 50 million 2005 funding gap by July, and to secure an additional US$ 200 million still required for 2006 activities.

Progress leads to introduction of new polio vaccine
Strong progress in Egypt and India, especially in eliminating poliovirus types 2 and 3, prompted the Advisory Committee for Poliomyelitis Eradication to recommend rapid development of monovalent oral polio vaccine type 1 (mOPV1) to interrupt the final chains of transmission in these countries. Monovalent OPV1 will be more efficient than trivalent OPV (which works against all three polio strains) at boosting immunity against poliovirus type 1. Use of mOPV1 is expected nation-wide in Egypt, and in parts of India (in Bihar, Mumbai/Thane and key districts in western Uttar Pradesh), as early as April/May 2005. In these areas, epidemiological evidence suggests that only type 1 polio continues to circulate.
Monovalent OPV – a new vaccine developed in record time

In late 2004, the vaccine manufacturers Sanofi-Pasteur and Panacea Biotec notified WHO of their willingness to produce mOPV1. A mere four months later, on 25 March 2005, the Sanofi-Pasteur vaccine was officially licensed by French regulatory authorities; the Panacea Biotec vaccine was licensed by Indian regulatory authorities on 7 December 2004. The Bill and Melinda Gates Foundation provided grants totalling US$10 million to WHO and UNICEF, for procurement of the new vaccine.

Challenges

Nigeria: highest number of cases in the world, though epidemic peaked in May

Nigeria continued to be the epicentre of a polio outbreak that affected a broad band of countries across Africa. However, the peak of the epidemic occurred at the end of the ‘low transmission’ season for polio in May, with cases steadily declining every subsequent month, following the resumption of polio immunization in Kano mid-year. Nigeria reported the highest number of new cases in the world in 2004, accounting for 63% of the global 2004 case burden (792 cases of 1,265 cases). Surveillance case data shows that only 32% of the population aged <5 years of age had received at least 4 doses of OPV. To address this, independent monitoring systems, similar to those proven so successful in India and Pakistan, have been established to track and reach out to all missed children and areas during polio campaigns.

Previously polio-free countries re-infected, 6 countries re-establish transmission

During 2003-4, polio spread from Nigeria to 14 previously polio-free countries and wild poliovirus transmission was re-established in six previously polio-free countries: Burkina Faso, the Central African Republic, Chad, Côte d’Ivoire, Mali and Sudan. In these six countries, the imported poliovirus continued to circulate for more than six months. In response to the epidemic, Africa united, mounting a 23-country coordinated immunization response that reached 80 million children under five years of age. Similar activities are scheduled for 2005. These additional campaigns are costing US$ 200 million.
Central Africa and Horn of Africa: viruses not seen since 1996 identified

Three separate lineages of poliovirus that had been thought to be eliminated were detected in Sudan and Chad, suggesting ongoing gaps in surveillance in central and the Horn of Africa. A type 1 poliovirus lineage detected in Sudan in 2004 was most closely related to a virus last seen in Chad in 1999, while a type 3 virus, also from Sudan, had not been seen in that country since 1999. Additionally, viruses from two type 3 polio cases were recently confirmed in Chad in 2004 and their closest relatives were viruses last detected in 1996 in Central African Republic and Cameroon. The identification of these viruses has prompted major efforts to increase sub-national surveillance sensitivity across polio-affected countries.

Côte d'Ivoire: civil conflict interrupts effort to reach all children

Civil unrest in Côte d'Ivoire led to a temporary suspension of immunization activities in November. While campaigns resumed in February 2005, access to all children during polio activities remains a challenge. To address this challenge, the spearheading partners of the Global Polio Eradication Initiative are significantly increasing the level of technical support they are providing to Côte d'Ivoire and are working with all parties to ensure security of health workers implementing polio activities.

India: children in highest risk areas still being missed

The greatest risk to successful interruption of wild poliovirus transmission in India remains the difficulties in reaching the final 10% of children in key, high-risk districts of western Uttar Pradesh and Bihar and in the metropolitan area of Mumbai. In response, India is engaging its entire civil administration -- demonstrating impressive cross-sectoral efforts to exploit the transportation, communications and human resources infrastructure -- to reach every child with oral polio vaccine.

Pakistan & Afghanistan: widespread polio transmission and immunity gaps; lost access due to security issues

In Pakistan, monitoring of polio campaigns confirm major improvements in activities. Despite these improvements, however, relatively extensive polio transmission continues primarily in Sindh and Punjab, with cases also reported in Balochistan and North West Frontier Province. In response, the intensification to reach all households, particularly in culturally-sensitive areas, is being continued.

The major risk to Afghanistan’s polio eradication programme was decreased access due to security concerns, particularly in the southern region of the country, the last reservoir of wild poliovirus. This has had a detrimental impact on the ability to reach all populations. In response, ongoing negotiations among all parties is helping to again increase access to all populations during activities.

Egypt: environmental surveillance shows continued polio transmission

Improvements in Egypt’s environmental sampling in early 2004 demonstrates continued poliovirus transmission in two focal areas, which calls for an increase in the quality of immunization campaigns and use of monovalent oral polio vaccine type 1 (mOPV1). Although Egypt reported only one case of polio in 2004, 15 environmental samples with positive poliovirus isolates were collected, most notably in Greater Cairo (including Giza), Minya and Assiut. The response: accelerated introduction of mOPV1, coupled with improvements in campaign quality, including the use of finger-marking during supplementary immunization activities (SIAs).
3. Advocacy

Growing political momentum to finish the job

The international support base for polio eradication expanded in 2004 as the Commonwealth and members of the Asian-Pacific Economic Cooperation (APEC) put their weight behind the global effort to consign polio to the history books. At the 4th Ordinary Session of the African Union (AU) in March 2004 in Addis Ababa, Ministers of the Executive Council of the AU issued a communiqué on polio eradication renewing the AU’s commitment and pledging to eradicate the disease from the continent. AU Chairperson President Obasanjo and Chairperson of the AU Commission, Professor Alpha Oumar Konaré, launched October’s 23-country synchronized polio campaigns from Kano, Nigeria. Financial support for African countries was strengthened when G8 leaders at their June 2004 Summit renewed their pledge to help endemic countries finance eradication activities. In the same month, a second resolution on polio eradication was adopted by the Islamic Conference of Foreign Ministers (OIC) at its 31st Session in Turkey. Ministers of Health attending the 54th Regional Committee of the WHO African Region passed a resolution in September 2004 on the resurgence of wild poliovirus transmission in the region.

Ministers of health sign ‘Geneva Declaration for Eradication of Polio’

The year got off to a strong start for the global effort to eradicate polio, with ministers of health of the remaining polio-endemic countries convening at WHO in Geneva. Discussions focused on an intensification of immunization activities. Ministers signed the Geneva Declaration for the Eradication of Poliomyelitis. Marking the first anniversary of the Geneva Declaration, Ministries of health from the polio-affected countries in Africa and Asia met in January and February 2005 respectively at WHO in Geneva, to hammer out the immunization strategies for the year. All countries expressed strong commitment to finish the job of poliovirus interruption in their countries by the end of the year.
African Union: Africa unites in face of outbreak

With ongoing spread of polio across west and central Africa, the African Union conceived and conducted a programme of synchronized immunization campaigns in 23 countries in west and central Africa in October and November, reaching more than 80 million children. Polio eradication continues to feature prominently on the agenda of African Union summits. At the African Union (AU) Summit in Abuja, held on 29-31 January, African leaders re-committed to polio eradication. President Obasanjo called for a Summit of regional African organizations such as ECOWAS to strengthen political support for polio eradication. Leaders of polio-affected countries acknowledged their commitment and oversight is critical to stop transmission of polio from Africa by end-2005.

Annan sends special envoy to Nigeria to help secure resolution of OPV controversy

In response to the suspension of polio immunization in northern Nigeria, UN Secretary-General Kofi Annan appointed Professor Ibrahim Gambari as his Special Envoy on Polio Eradication. Gambari traveled to Nigeria on a special mission to meet representatives of federal and state-level governments and religious and traditional rulers. His engagement, and intense collaboration between state and federal authorities, were instrumental in securing the resumption of polio immunizations.

Rotary volunteers go the distance to immunize children against polio

Rotary volunteers marked another year of dedication to the fight against polio, travelling from around the globe to help with National Immunization Days in polio’s last frontiers in west Africa and India. Undeterred by highway bandits, broken-down transportation and illness, a delegation of Rotary club members from the United States immunized children in Burkina Faso. Team leader Charles Cogan praised the adaptability and determination of the volunteers, saying, “the Rotarians were willing to deal with the obstacles and keep their eyes on why they were there.” In India, hundreds of Rotarians from the United States and Canada partnered with India’s 90,000 Rotarians to administer oral polio vaccine to
millions of children. Rotary volunteers dived into the immunizations with great enthusiasm, pledging, in the words of Pennsylvania Rotarian Dave Ellis to, “work from dusk to dawn to make sure that every child under the age of five is immunized.” Dr. Hamid Jafari, Director of CDC’s Global Immunization Division lauded Rotary volunteer work in the fight against polio, saying, “the presence of Rotary’s volunteers in the field supporting and monitoring the work of vaccinators is enormously helpful in achieving success.”

High-level political commitment in Asia translates into unprecedented progress

With polio cases nearly halved in 2004 compared with 2003, political commitment is at its strongest levels ever throughout the remaining endemic countries (India, Pakistan and Afghanistan). Afghanistan’s president Hamid Karzai, India’s Congress Party leader Sonia Gandhi and Pakistani President Pervez Musharraf all lent their personal support to the 2004 immunization campaigns, during which 210 million children were given 1.5 billion doses of polio vaccine.

Organization of the Islamic Conference (OIC), during the 31st Session of the Islamic Conference of Foreign Ministers held in Istanbul, Republic of Turkey in June 2004, reviewed the polio resolution adopted at the 10th Islamic Summit and revised it to highlight the critical situation facing countries in West and Central Africa. The revised resolution expressed deep concern that 17 of the 23 countries in West and Central Africa targeted for mass synchronized polio campaigns were member states of the OIC. It also renewed the call for additional financial support to respond to this emergency. At the Conference, statements in support of polio eradication were also conveyed by Malaysia, as the Chair of the OIC, and by the Special Adviser to the UN Secretary-General Kofi Annan, H.E. Lakdhar Brahimi.

The Commonwealth, under the leadership of Secretary-General Donald McKinnon, encouraged polio-endemic Commonwealth members India, Pakistan and Nigeria to further intensify their respective polio eradication campaigns. Members of the Commonwealth, led by the United Kingdom and Canada, continued to provide significant financial support to the Global Polio Eradication Initiative.

APEC leaders call for closing the funding gap for polio eradication

At the conclusion of the meetings of foreign and economic/trade Ministers of the 21 members of the Asian-Pacific Economic Cooperation (APEC) held in Chile, the Ministers noted the international effort to eradicate polio by 2005 through the WHO/UNICEF-led global Polio Eradication Initiative and stressed the importance of all economies making efforts to close the financial gap that faces this effort. This recommendation was then shared with the Heads of State during the APEC Summit.
4. Interruption of poliovirus transmission

At the start of 2004, indigenous wild poliovirus transmission had been interrupted in all but six countries (Nigeria, India, Pakistan, Niger, Afghanistan and Egypt). The fragility of this progress was demonstrated as poliovirus spread from northern Nigeria to 14 previously polio-free countries and polio transmission was re-established in six countries.

The primary strategy to interrupt wild poliovirus transmission is the implementation of high-quality supplementary immunization activities (SIAs).

Implementing mass, supplementary immunization activities (SIAs) is the primary strategy for interrupting transmission of wild poliovirus

Success depends on:
1. The number of SIAs conducted in each country (i.e. reaching children with multiple doses of OPV)
2. The quality of SIAs conducted (i.e. the percentage of target population reached)

In 2004, all polio endemic countries dramatically intensified immunization campaigns, conducting a minimum of six large-scale activities throughout 2004.
### Intensification of immunization activities in endemic countries and countries with re-established transmission in 2004 (compared to 2003):

<table>
<thead>
<tr>
<th>Country</th>
<th>2004 NIDs</th>
<th>2004 SNIDs</th>
<th>2004 Mop-ups</th>
<th>2003 activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Endemic</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nigeria</td>
<td>5</td>
<td>2</td>
<td>-</td>
<td>0 NIDs 5 SNIDs</td>
</tr>
<tr>
<td>India</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>2 NIDs 4 SNIDs</td>
</tr>
<tr>
<td>Pakistan</td>
<td>7</td>
<td>1</td>
<td>-</td>
<td>4 NIDs 4 SNIDs</td>
</tr>
<tr>
<td>Niger</td>
<td>5</td>
<td>1</td>
<td>-</td>
<td>2 NIDs 3 SNIDs</td>
</tr>
<tr>
<td>Afghanistan</td>
<td>4</td>
<td>5</td>
<td>-</td>
<td>4 NIDs 4 SNIDs</td>
</tr>
<tr>
<td><strong>Re-established transmission countries</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>2 NIDs 0 SNIDs</td>
</tr>
<tr>
<td>Central African Republic</td>
<td>4</td>
<td>-</td>
<td>2</td>
<td>2 NIDs 0 SNIDs</td>
</tr>
<tr>
<td>Chad</td>
<td>5</td>
<td>1</td>
<td>-</td>
<td>1 NID 2 SNIDs</td>
</tr>
<tr>
<td>Côte d’Ivoire*</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>2 NIDs 0 SNIDs</td>
</tr>
<tr>
<td>Mali</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>0 NIDs 0 SNIDs</td>
</tr>
<tr>
<td>Sudan</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>0 NIDs 5 SNIDs</td>
</tr>
</tbody>
</table>

*Activities were suspended in some areas in Côte d’Ivoire during the November 2004 National Immunization Day. Immunizations resumed in February 2005.

Countries at particular risk of re-infection also continued or restarted immunization campaigns. In total, 45 countries across Asia, Africa and the Eastern Mediterranean conducted 171 supplementary immunization activities in 2004, immunizing more than 372 million children using 2.4 billion doses of oral polio vaccine (OPV).

### 2004: Intensification of polio immunization campaigns
- 372 million children immunized
- 2.4 billion doses of OPV administered
- 171 large-scale immunization campaigns
- 45 participating countries

Global progress toward a polio-free world was threatened by a resurgence of the disease in west, central and east Africa, as ongoing spread of virus re-infected a total of 14 previously polio-free countries. In six of these countries - Burkina Faso, Central African Republic,
Chad, Côte d’Ivoire, Mali and Sudan - indigenous polio transmission was re-established, following ongoing circulation of an imported virus for a period greater than six months.

Key to success

Key to interrupting wild poliovirus transmission as rapidly as possible in the remaining endemic areas is to overcome a chronic failure to reach all children with polio vaccine during immunization campaigns.

Global case map 2004: Wild Poliovirus, 2004

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement. © WHO 2004. All rights reserved
4a. Asia achieves strong progress

India: cases halved over 2003

India built on its tremendous progress in 2003 by adding further immunization campaigns of even higher quality in 2004. India reported the lowest number of cases ever in 2004 (134); cases nearly halved compared with 2003 when 225 cases were reported. Polio transmission is primarily limited to type 1 wild poliovirus, with only seven type 3 wild polio virus cases reported in the year.

In the highest-risk areas of western Uttar Pradesh, Bihar and Mumbai/Thane, additional sub-national campaigns were implemented, usually targeting more than 50 million children. Overall, activities were held every six weeks in the highest-risk areas.

The focus in India continued to be on reaching the last remaining pockets of un- or under-immunized children. Throughout 2004, WHO and UNICEF worked with government officials to develop district and sub-district plans specifically to reach under-served communities in high-risk areas. Other revised activities included the scaling-up of transit vaccination teams, whose mission it is to immunize children at high-volume transit points such as bus and railway stations. Thanks to such targeted and tailored outreach to the most underserved populations, transmission was narrowed to key districts in western Uttar Pradesh, Bihar and Mumbai/Thane.

In total, only 7% of districts in India reported polio cases (44 of 602 districts). Additionally, just seven of these districts accounted for more than 50% of all cases in India in 2004.

February 2005

An additional 2 million children are immunized in the key state of Uttar Pradesh, India, by transit teams at bus and railway stations.

India 2004: summary

| Increase in SIAs: 9 doses of OPV administered to children in highest-risk districts |
| Focus on reaching all children: number of ‘missed’ children during SIAs reduced to 4% (from 9% in 2003 and 33% in 2002) |
| Lowest cases ever; transmission geographically contained; type 3 polio all but eliminated |

India: focus on 2005

| Introduce monovalent OPV1, to more rapidly interrupt type 1 polio transmission |
| Reach all children during SIAs, by ‘special teams’ such as transit vaccination teams (immunizing at railway and bus stations) - up to 10% of children continue to be missed in highest-risk areas |

Pakistan: Intensified activities lead to progress

Pakistan maintained its intensified immunization schedule from 2003, conducting eight large-scale immunization campaigns, including seven nation-wide activities reaching 33 million children each time.

The continued intensification has led to a drop in cases, from 53 cases, versus 103 in 2003. While epidemiological evidence demonstrates that virus transmission is isolated primarily in Sindh and Punjab, late-year cases in Balochistan and North West Frontier Province indicate that low-level transmission or importations continue to affect these regions.

The progress is indicative of the strong political commitment evident throughout the country. President of Pakistan Pervez Musharraf lent his personal support to the 2004 immunization campaigns.
Pakistan: summary
Continued intensification of immunizations, with 8 large-scale activities conducted

Lowest number of cases ever; primary transmission in Sindh and Punjab, and only isolated cases in Balochistan and North West Frontier Province

Pakistan: focus on 2005
Continued political commitment, strengthened at provincial and district levels

Focus on reaching every child, by accessing all households, particularly in culturally-sensitive areas, during immunization campaigns

A key challenge in 2005 will be overcoming insecurity in southern Punjab and northern Sindh, which continues to hamper access to all children during activities

Afghanistan: focus on reaching all children amid security concerns

Afghanistan further increased its intensified immunization schedule in 2004, conducting four nation-wide campaigns reaching more than 7 million children each time, and five sub-national immunization campaigns reaching more than 5 million children each time. Activities were mostly conducted in synchronization with neighbouring Pakistan.

The focus in 2004 was firmly on reaching all children. Security concerns, particularly in the southern region of the country, hampered access to all populations, but improvements in coverage occurred thanks to strong political engagement evident throughout the country. Afghanistan reported its lowest number of cases ever (four cases), compared to eight in 2003.

Afghanistan: summary
Increase in SIAs: 9 doses of OPV administered to children in highest-risk districts

Lowest number of cases ever (4 cases, compared to 8 in 2003)

Security concerns in southern region hamper access

Afghanistan: focus on 2005
Increase access to all children, particularly in southern Afghanistan, where security concerns continue to hamper access to all populations

4b. Africa: strong progress in Egypt but resurgence of polio elsewhere

Egypt: the stage is set for mOPV1

In Egypt, the quality of immunization activities continues to improve, with campaigns consistently reporting over 95% coverage. Despite this, environmental surveillance indicates low-level, persistent transmission across the country, particularly in Cairo/Giza, Minya and Assiut. As only type 1 wild poliovirus has been identified in Egypt since December 2000, the Egyptian Technical Advisory Group (TAG) recommended the rapid introduction of monovalent oral polio vaccine type 1 (mOPV1) to interrupt the final chains of transmission. The introduction of mOPV1 is planned in Egypt in May 2005.

Monovalent OPV - a magic bullet?

The development of monovalent OPV (mOPV1) is being heralded by some as a ‘magic bullet’ to eradicate the final strains of wild poliovirus type 1 transmission in the world. While mOPV1 is expected to provide increased immunity to type 1 wild poliovirus, compared to similar number of doses of trivalent OPV (tOPV), it is not a panacea. More important will be the focus on the quality of immunization campaigns to ensure that all children are reached with the vaccine.
**Egypt: summary**

**Ongoing intensification of immunization campaigns**

Increased quality of immunization activities, with some data showing as many as 95% of children reached

Only 1 case reported

Low-level transmission in two focal areas, as demonstrated by strong improvements in environmental surveillance

Only type 1 polio continues to circulate

**Egypt: focus on 2005**

Introduction of monovalent OPV type 1 (mOPV1)

Continued improvement of immunization campaign quality - focus on reaching remaining 5% of children chronically under-immunized

By reaching all children with mOPV1 during immunization campaigns in 2005, break the final chains of polio type 1 transmission in the country

**Nigeria/Niger - higher quality campaigns needed following resumption of SIAs in Kano**

Nigeria and Niger are the only two countries in west and central Africa where endemic wild poliovirus transmission has never been interrupted. An analysis of non-polio AFP cases at end-2004 indicates that as many as two-thirds of children (68%) in Nigeria remain un- or under-immunized (<4 doses of OPV), while in Niger, more than three-quarters of children (77%) are un- or under-immunized. In the 12 northern states of Nigeria, this figure is even higher, with 84% of children not receiving sufficient doses of OPV.

Throughout 2004, many children were repeatedly missed during immunization activities, missing as many as 20% of children during individual campaigns. Given the high population density in Nigeria, activities must urgently be improved if transmission of wild poliovirus is to be interrupted. Independent monitoring systems, similar to those proven so successful in India and Pakistan, have been introduced to track and reach out to all missed children and areas during polio campaigns. Of note, strong progress has already been achieved in the early half of 2005 in Nigeria, as immunization campaigns have dramatically improved, and the number of missed children during activities in the early half of the year has been reduced from 20% in 2004 to 11%. Thanks to this progress, an analysis has revealed that the number of un- or under-immunized children has dropped to 41% in the first half of 2005 (versus 68% in 2004).

Following the resumption of immunization campaigns in Kano, Nigeria, on 31 July 2004 (activities had been suspended for 12 months due to unfounded concerns regarding polio vaccine safety), Nigeria and Niger intensified immunizations in all areas of the country (in Nigeria, two nationwide and three sub-national immunization campaigns were conducted in the latter half of the year, following resumption of immunization in Kano state). Nigeria conducted five nationwide immunization campaigns, each time aiming to reach the country’s 35 million children under the age of five years. In 2003, no full nationwide campaigns were conducted. Evidence suggests that this intensification of immunizations had strong effects on the outbreak in Nigeria, which peaked in May 2004, with cases declining every month.
subsequent, despite the onset of the ‘high transmission’ season. In addition, only sporadic cases occurred in the south, underscoring that polio eradication strategies work.

In Niger, five nationwide activities were conducted in 2004, with an additional sub-national immunization campaign. Most activities were synchronized with neighbouring countries.

Data collection in both Nigeria and Niger is improving, as use of independent monitoring of immunization campaigns is increasingly becoming standardized. More robust data collection will allow for a greater and more transparent analysis of the effectiveness of immunization campaigns, and aid in the planning for subsequent activities.

<table>
<thead>
<tr>
<th>Nigeria/Niger: summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nigeria had the highest number of cases in the world in 2004 (792 cases), accounting for 63% of all global cases</td>
</tr>
<tr>
<td>Immunization campaigns resumed in Kano, Nigeria, on 31 July 2004</td>
</tr>
<tr>
<td>Immediate scaling up of polio campaigns, leading to the rapid peak of the outbreak before the ‘high season’, and the elimination of poliovirus in the southern part of the country</td>
</tr>
<tr>
<td>Immunity gaps remain in both Nigeria and Niger (68% and 77% respectively)</td>
</tr>
<tr>
<td>Independent monitoring is increasingly being standardized</td>
</tr>
<tr>
<td>As many as 20% of children continue to be missed in the highest-risk areas during immunization activities</td>
</tr>
<tr>
<td>Strong political commitment throughout both countries is evident at national and state levels</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nigeria/Niger: focus on 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Further improve immunization activities, to overcome the inability to reach all children during polio campaigns</td>
</tr>
<tr>
<td>Continue to synchronize activities with other countries across west and central Africa</td>
</tr>
<tr>
<td>Strengthen political commitment at Local Government Authority level</td>
</tr>
<tr>
<td>Continue to improve monitoring systems</td>
</tr>
</tbody>
</table>

Polio outbreak: transmission re-established in 6 previously polio-free countries of west and central Africa

The outbreak originating in mid-2003 in northern Nigeria spread to 14 previously polio-free countries in 2003-04, including as far away as Saudi Arabia and Botswana. In six of these countries - Burkina Faso, Central African Republic, Chad, Côte d’Ivoire, Mali and Sudan - indigenous polio transmission was re-established (ie transmission continued for >6 months following poliovirus importation).

In response, Africa united, conducting multiple synchronized immunization campaigns, and additional campaigns are planned in 2005 (see box next page). Similar activities in 2000 and 2001 succeeded in stopping polio transmission in all but two countries of the region (Nigeria and Niger).
Re-established transmission countries: summary

Indigenous polio transmission was re-established in 6 previously polio-free countries: Burkina Faso, Central African Republic, Chad, Côte d’Ivoire, Mali and Sudan.

All 6 countries participated in mass, cross-border polio campaigns in October and November 2004.

Civil unrest in Côte d’Ivoire hampers access to all children, with immunizations halted entirely in November.

In Sudan, reaching all children in the troubled Darfur region, accessing returning refugees in Khartoum and Upper Nile state remain a challenge.

Re-established transmission countries: focus on 2005

Ensure access to all children in areas of civil conflict in parts of Côte d’Ivoire and Sudan.

Continue to synchronize activities with other countries across west and central Africa.

Focus on reaching all children, to ensure spread of polio does not re-infect the Horn of Africa, the Democratic Republic of the Congo, or other polio-free countries.

Africa unites: 23-country synchroNIDs in response to outbreak

In Africa, the outbreak which began in mid-2003 continued in 2004, re-infecting a total of 14 previously polio-free countries. In six of these countries - Burkina Faso, Central African Republic, Chad, Côte d’Ivoire, Mali and Sudan - indigenous polio transmission was re-established.

The spread of virus has occurred across the continent, eastward to Ethiopia (threatening the polio-free countries of the Horn of Africa and the Democratic Republic of the Congo), in the centre of the continent to Chad, Cameroon and Central African Republic, westward to Guinea and Mali, and southward to Botswana.

African countries have united in an unprecedented way to respond to this outbreak, first by launching a 10-country, emergency synchronized immunization campaign in February and March 2004, followed by expanded, 23-country campaigns in October and November. The latter campaigns were conducted under the auspices of the African Union (AU). The first round of the 23-country campaign in October was officially launched by Nigerian President Olusegun Obasanjo and Professor Alpha Oumar Konaré, Chairman of the AU Commission, in Kano, Nigeria.

Similar synchronized activities will need to be conducted throughout 2005 to stop transmission of the virus. The outbreak emergency response has added US$ 200 million in costs to Africa’s polio eradication effort.

Africa 2004: 23 countries synchronizing polio campaigns
## Progress against milestones

<table>
<thead>
<tr>
<th>Milestone 1:</th>
<th>Five or fewer countries remain endemic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Status:</strong></td>
<td>Not achieved. Six countries remain endemic, six countries re-establish polio transmission</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Milestone 2:</th>
<th>100% of planned SIAs implemented in highest-risk polio-free areas</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Status:</strong></td>
<td>Achieved</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Milestone 3:</th>
<th>30% of countries achieving GAVI targets for DTP3/OPV3 coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Status:</strong></td>
<td>2004 data not yet available. 2003 progress: 20% of countries achieved GAVI targets</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Milestone 4:</th>
<th>80% of emergency mop-ups began within four weeks of case confirmation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Status:</strong></td>
<td>Partially achieved (mop-ups were conducted within six weeks in Darfur, Sudan, following identification of the first case)</td>
</tr>
</tbody>
</table>
5. Certification of global polio eradication

Certification-standard surveillance
Surveillance for poliomyelitis and poliovirus relies primarily on reporting and laboratory investigation of cases of acute flaccid paralysis (AFP), supplemented in specific circumstances by systems such as environmental and/or enterovirus surveillance. The purpose of surveillance is to guide implementation of supplementary immunization activities (SIAs), prepare for certification and detect potential circulating vaccine-derived polioviruses (cVDPVs). The quality of AFP surveillance – its ability to detect ongoing transmission of wild poliovirus in a country – is evaluated through three key indicators:

1. rate of reported AFP cases not due to wild poliovirus (“non-polio AFP rate”) of at least 1 case of non-polio AFP per 100 000 population aged < 15 years (note: high performing surveillance systems usually detect >2 cases of non-polio AFP per 100 000 population aged <15 years);
2. collection of “adequate” stool specimens from at least 80% of reported AFP cases;
3. analysis of all AFP stool specimens (100%) in laboratories accredited by WHO.

Performance of AFP surveillance and reported wild poliovirus cases, 2003 and 2004, by WHO Regions

<table>
<thead>
<tr>
<th>WHO Region</th>
<th>No. of reported AFP cases</th>
<th>Non-polio AFP rate</th>
<th>Percent AFP with adequate stool specimens</th>
<th>Wild Virus Confirmed Polio Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRO</td>
<td>8,181</td>
<td>9,648</td>
<td>2.60</td>
<td>3.00</td>
</tr>
<tr>
<td>AMRO</td>
<td>2,229</td>
<td>2,218</td>
<td>1.33</td>
<td>1.32</td>
</tr>
<tr>
<td>EMRO</td>
<td>5,290</td>
<td>6,169</td>
<td>2.41</td>
<td>2.69</td>
</tr>
<tr>
<td>EURO</td>
<td>1,529</td>
<td>1,555</td>
<td>1.15</td>
<td>1.17</td>
</tr>
<tr>
<td>SEARO</td>
<td>11,289</td>
<td>16,237</td>
<td>1.85</td>
<td>2.63</td>
</tr>
<tr>
<td>WPRO</td>
<td>6,397</td>
<td>6,529</td>
<td>1.38</td>
<td>1.61</td>
</tr>
<tr>
<td>GLOBAL</td>
<td>34,915</td>
<td>42,356</td>
<td>1.90</td>
<td>2.29</td>
</tr>
</tbody>
</table>

Increase in AFP reporting
The overall sensitivity of AFP surveillance (timeliness and completeness of AFP reporting and collection of adequate stool specimens) in 2004 was maintained at certification-standard levels in all WHO regions, and further improved in a number of countries. There was a
20% increase in AFP reporting globally between 2003 and 2004. This increase was almost entirely due to marked increases in AFP reporting in India (70% of the overall increase), Nigeria (20%) and Pakistan (10%).

As wild poliovirus circulation decreased in Asia, it became necessary to adjust the sensitivity of AFP surveillance in view of decreasing intensity of transmission. The considerably increased AFP reporting from India and Pakistan showed the success of deliberate, intense efforts to further increase the sensitivity of field AFP surveillance, and therefore of detecting wild poliovirus. The increased number of AFP cases from Nigeria was mainly related to the continued polio epidemic.

**Strong progress in number of AFP cases reported in India and Pakistan**

Strategic efforts to further strengthen the AFP surveillance system in India and Pakistan led to a substantial increase in the number of reported AFP cases.

In India, 36% more AFP cases were reported in 2004 compared with 2003 (13,266 as against 8,508), while in Pakistan, 14% more AFP cases were reported (2,629 as against 2,270).

**Surveillance: non-polio acute flaccid paralysis (AFP), 2003 versus 2004**

*Per 100,000 population aged <15 years*

**January 2003 - December 2003**

**January 2004 - December 2004**

Data in WHO HQ as of April 2005
The number of countries in polio-endemic WHO regions not reaching certification-standard surveillance decreased from 18 in 2003 to 13 in 2004. Of these, eight countries were in the WHO African Region, three in the WHO Eastern Mediterranean Region and two in the WHO South-East Asia Region. Eleven of 13 countries achieved certification standards against one of two indicators, and the indicator was just below the “certification threshold” in six of these eleven countries. Two countries (Cape Verde, Djibouti) have populations < 1 million and are unlikely to have sustained indigenous transmission of wild polioviruses.

<table>
<thead>
<tr>
<th>Region</th>
<th>Country</th>
<th>AFP cases reported</th>
<th>Annualised non-polio AFP rate</th>
<th>AFP cases with adequate specimens (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRO</td>
<td>Algeria</td>
<td>79</td>
<td>0.80</td>
<td>66%</td>
</tr>
<tr>
<td>AFRO</td>
<td>Cameroon</td>
<td>211</td>
<td>2.50</td>
<td>77%</td>
</tr>
<tr>
<td>AFRO</td>
<td>Cape Verde*</td>
<td>3</td>
<td>1.50</td>
<td>67%</td>
</tr>
<tr>
<td>AFRO</td>
<td>Central African Republic</td>
<td>120</td>
<td>4.50</td>
<td>75%</td>
</tr>
<tr>
<td>AFRO</td>
<td>Chad</td>
<td>119</td>
<td>2.20</td>
<td>73%</td>
</tr>
<tr>
<td>AFRO</td>
<td>Lesotho</td>
<td>10</td>
<td>0.90</td>
<td>100%</td>
</tr>
<tr>
<td>AFRO</td>
<td>Liberia</td>
<td>15</td>
<td>0.70</td>
<td>87%</td>
</tr>
<tr>
<td>AFRO</td>
<td>Zimbabwe</td>
<td>111</td>
<td>1.80</td>
<td>76%</td>
</tr>
<tr>
<td>EMRO</td>
<td>Djibouti*</td>
<td>2</td>
<td>0.77</td>
<td>0%</td>
</tr>
<tr>
<td>EMRO</td>
<td>United Arab Emirates</td>
<td>9</td>
<td>0.88</td>
<td>100%</td>
</tr>
<tr>
<td>EMRO</td>
<td>West Bank and Gaza</td>
<td>5</td>
<td>0.46</td>
<td>83%</td>
</tr>
<tr>
<td>SEARO</td>
<td>Democratic People’s Republic of Korea</td>
<td>73</td>
<td>0.93</td>
<td>95%</td>
</tr>
<tr>
<td>SEARO</td>
<td>Sri Lanka</td>
<td>90</td>
<td>1.81</td>
<td>78%</td>
</tr>
</tbody>
</table>

Red indicates target not achieved. Green indicates targets achieved in 2003 but not in 2004.

*Total population <1 million, unlikely to have sustained undetected indigenous transmission of wild polioviruses.

Data in WHO HQ as of 1 March 2005.
Detection of surveillance gaps

Despite the overall high levels of surveillance quality, especially in polio-endemic countries and in countries with re-established transmission, genetic data indicated continued circulation of some virus lineages that were thought to have been eliminated. In Sudan, two type 1 and one type 3 virus lineages recently were detected in 2004 during the recent outbreak. The majority of cases (96%) were due to a type 1 virus lineage originating in Nigeria, while remaining type 1 cases had viruses most closely related to virus last seen in Chad in 1999. A single type 3 case had a virus whose closest relative was last seen in southern Sudan in 1999. Two type 3 polio cases were recently confirmed in Chad, with closest virus relatives last detected in 1996 in Central African Republic and Cameroon. The identification of these viruses has prompted major efforts to increase sub-national surveillance sensitivity across these polio-affected countries.

In other countries such as Nigeria, Pakistan and Afghanistan, smaller-scale gaps in surveillance quality were identified following the isolation and sequencing of type 1 and type 3 virus isolates.

Importance of sub-national surveillance

Although both Sudan and Chad had national surveillance sensitivity above certification-standard, major sub-national gaps confirmed the ongoing circulation of viruses thought to have been eliminated.

To ensure that the interruption of wild poliovirus circulation in any country has been achieved, strong AFP surveillance throughout the country is critical.

In these countries, the sub-areas where surveillance gaps were identified are affected by security problems, which limit access during SIAs and for surveillance activities. The Global Polio Eradication Initiative and its partners continue to work with all authorities in ensuring increased access to all areas, to ensure that surveillance gaps can be filled.

Global polio laboratory network

Acute flaccid paralysis (AFP) surveillance is underpinned by a global network of 145 laboratories whose quality assurance programmes incorporate WHO-administered accreditation involving annual (usually on-site) evaluation of performance. In 2004, all samples from AFP cases were tested in WHO-accredited laboratories that continued to meet performance targets for providing timely laboratory results. The network processed approximately 80,000 faecal samples. Over 85% of all virus isolation results were reported within 28 days of sample receipt and over 90% of intra-typic differentiation (ITD) results were reported within 14 days.

Information on the genetic characteristics of virus isolates was key in 2004 to investigating the possible origins of wild polioviruses detected in 18 countries. Transmission of endemic polioviruses continued in six countries (Nigeria, India, Pakistan, Niger, Afghanistan and Egypt) in 2004 and imported viruses were detected in another 14 countries in six of which polio transmission was re-established. A vaccine-derived poliovirus (VDPV) outbreak was detected in 2004 in Guizhou province, China, with type 1 VDPVs isolated from two AFP cases and two contacts. Several other VDPVs were detected from sporadic AFP cases or sewage samples collected in other countries, but were not associated with outbreaks of paralytic disease.

Challenges: increased workload and civil unrest

Improvements in AFP surveillance in remaining polio-endemic regions increased the workload of laboratories and the requirements for reagents and testing supplies. The workload for investigation of AFP cases increased by 26% in Egypt, 55% in India,
39% in Nigeria and 15% in Pakistan. The workload for sequencing of wild polioviruses by the reference laboratory in South Africa increased by 130%.

In response, three key polio laboratories in Africa (Côte d’Ivoire, Ibadan-Nigeria, and Senegal) were upgraded in 2004 to increase regional capacity for differentiating poliovirus isolates as wild or vaccine-like. The three laboratories perform 45% of the regional laboratory workload and provide services for twelve (30%) of the countries in the region. These three laboratories were equipped and staff were trained to perform ITD tests and are expected to be fully functional by mid-2005.

Laboratory training workshops are scheduled to be held in the first quarter of 2005 in India and in the Eastern Mediterranean Region to train new personnel recruited to help cope with the increased workload.

Civil unrest resulted in occasional disruptions of laboratory services in Côte d’Ivoire in 2004. Samples from Niger were re-directed from Côte d’Ivoire to Senegal for testing.

Submission of final certification documentation
Before a region is certified polio-free, countries become eligible to submit ‘final certification documentation’ if no wild poliovirus is found for at least three years, under conditions of ‘certification-quality’ surveillance. Overall, 76% of countries submitted final certification documentation: all (100%) of the 137 countries in the three WHO regions already certified as polio-free; and 28 of 80 countries in polio-endemic regions (three of 46 countries in the African Region, 16 of 22 in the Eastern Mediterranean Region and eight of eleven in the South-East Asian Region). At least six African countries are formally eligible to submit this documentation; however, the Regional Certification Commission (RCC) has decided to delay review in view of the over-riding priority in the region to interrupt transmission.

Expansion and integration of AFP surveillance
The 2004 milestone to integrate or expand AFP reporting in 50% of countries was achieved. At present, two-thirds (131) of the 198 countries with AFP systems are utilizing the AFP system for surveillance of other vaccine-preventable diseases, particularly measles. AFP surveillance staff and infrastructure continue to provide crucial support for the investigation of - and response to - other epidemic-prone diseases.

Poliovirus Containment
Activities continue to minimize the risk presented by laboratory stocks of wild poliovirus infectious and potential infectious materials. By end-2004, 152 countries had initiated a survey for wild- and vaccine-derived poliovirus infectious and potential infectious materials, covering over 200,000 facilities. Approximately 850 facilities have been identified to date with wild poliovirus materials - these materials will either be destroyed or placed under appropriate biocontainment conditions. As at April 2005, 112 countries have reported completing an exhaustive national search for facilities with wild poliovirus infectious or potential infectious materials.

The most progress has been made in WHO regions already certified as polio-free. A major accomplishment in 2004 was the completion of Phase I containment activities in all 52 countries of the WHO European Region. Countries in this WHO region have highly-developed laboratory infrastructures with long histories of poliovirus research in government, private, and education settings. The ability to identify facilities with wild poliovirus materials in such settings affirms the feasibility of the approach worldwide.

Countries in WHO regions not yet certified polio-free are also addressing the risk presented by laboratory stocks of wild poliovirus. Over 30 countries in these regions are now conducting containment activities, with 12 countries reporting completion.
In order to confirm the quality of the survey and inventory, WHO is now working with countries to document the quality of the work. The documentation provided to WHO will be reviewed by independent experts and Regional Certification Commissions (RCCs). Over 75 countries have now provided this documentation and are in the review process. It is anticipated that many will complete this process in 2005.

The requirements for laboratories which decide to hold these materials will become more stringent as global interruption of wild poliovirus circulation nears and it becomes possible to stop routine use of OPV. The risks presented by facility-based polioviruses during these different phases of the programme are being analysed in order to develop policies appropriate for the risks. The polices will be published in a 3rd edition of the Global Action Plan for Laboratory Containment (GAP III) to be available in 2005.

Wild poliovirus containment: progress with Phase I - Survey & Inventory, 2004

### Progress against milestones

**Milestone 1:** 85% of non-certified countries will have certification-standard surveillance  
**Status:** Partially achieved. 83% of non-certified countries met both surveillance indicators required for certification-standard surveillance. 99% of countries achieved certification-standard against one of the two indicators.

**Milestone 2:** All AFP specimens will be processed in a WHO-accredited laboratory  
**Status:** Achieved

**Milestone 3:** 60% of eligible countries will submit final certification documentation  
**Status:** Achieved. 76% of countries submitted final certification documentation:  
- In AFRO, 3 of 46 countries  
- In AMRO, 47 of 47 countries  
- In EMRO, 16 of 22 countries  
- In EURO, 52 of 52 countries  
- In SEARO, 8 of 11 countries  
- In WPRO, 36 of 36 countries

**Milestone 4:** 50% of countries will have completed each laboratory containment biocontainment phase (phase I)  
**Status:** Achieved. 50% of countries have completed phase I of the laboratory biocontainment phase:  
- In AFRO, 1 of 46 countries  
- In AMRO, 9 of 47 countries  
- In EMRO, 8 of 22 countries  
- In EURO, 52 of 52 countries  
- In SEARO, 3 of 11 countries  
- In WPRO, 34 of 36 countries
6. Global OPV cessation

Since 1999, new and increasing scientific data clearly demonstrate that the goal of eradicating all forms of polio-paralysis will require the cessation of all OPV use in routine immunization programmes. Continued use of OPV would mean the continued reintroduction of the attenuated polioviruses in OPV into a polio-free world, resulting in polio cases and outbreaks due to vaccine-derived polioviruses.

The international oversight body that guides the Global Polio Eradication Initiative – the Advisory Committee on Poliomyelitis Eradication (ACPE) - concluded in 2004 that OPV cessation should occur simultaneously and as soon as possible after the interruption of wild poliovirus transmission globally, while population immunity against polio and surveillance sensitivity for acute flaccid paralysis (AFP) remain high.

Policy decision: OPV use must be stopped

“After eradication of wild poliovirus, continued use of oral polio vaccine (OPV) would compromise the goal of a polio-free world.”
Advisory Committee on Poliomyelitis Eradication (ACPE), Geneva, 21-22 September 2004

In 2004, preparations for the global, eventual cessation of OPV were intensified.

Framework for National Policy Makers:
The decision to stop OPV has substantial implications for health authorities and national health policy makers in all WHO Member States. OPV cessation should occur simultaneously and as soon as possible after the global interruption of wild poliovirus transmission, while population immunity levels and disease surveillance remain high. Consequently, worldwide cessation of OPV could occur as early as 2009, depending on the timing of interruption of wild poliovirus transmission globally.

To provide national health policy makers in OPV-using countries with an overview of the rationale, risks, prerequisites and potential timetable for the global cessation of OPV, a framework document was developed in 2004 and will be shared with national policy makers at the World Health Assembly in May 2005. The framework places particular emphasis on those activities which need to be conducted at country-level during the ‘OPV Cessation Preparatory Phase’.
**OPV Cessation: Framework for National Policy Makers**

**Priorities for national policy makers in OPV-using countries during the OPV Cessation Preparatory Phase:**

1. **Strengthen polio (AFP) surveillance**
2. **Implement containment of wild- and vaccine-derived polioviruses and prepare for Sabin-virus containment**
3. **Increase routine immunization coverage (target: >90%)**
4. **Analyze risks/benefits of introducing inactivated polio vaccine (IPV) following OPV cessation**
5. **Conduct surveillance studies to detect potential immunodeficient vaccine-derived polioviruses (iVDPVs)**
6. **Establish national plans and mechanisms for eventual simultaneous cessation of all OPV use in routine immunization, including destruction of all remaining trivalent OPV (tOPV) stock**

**Vaccine stockpile**

An international stockpile of types 1, 2 and 3 monovalent OPV (mOPV) is needed to allow a 'type-specific' response to any circulating vaccine-derived poliovirus (cVDPV) that emerges during the 'OPV cessation and verification phase'. mOPVs will enhance the impact of the outbreak response while preventing the re-introduction of other polioviruses.

In 2004, all WHO-prequalified manufacturers of OPV and their respective national regulatory agencies were invited to collaborate with WHO on the development, licensure and production of monovalent OPV (mOPV) type 1, 2 and 3. Working estimates have been established for the number of doses required of each mOPV type, and development timelines have been elaborated. As a result of an accelerated vaccine development project, two mOPV type 1 (mOPV1) vaccines were licensed in early 2005, and are undergoing large-scale field evaluations. This rapid development of mOPV1 will provide invaluable experience for the development of mOPV types 2 and 3 (mOPV2 and mOPV3).

With the development, production and procurement of mOPV for the stockpile scheduled to begin in 2006, the mechanisms and criteria for future use of the stockpile must be completed and internationally-agreed in a World Health Assembly resolution. Up-front financing of the stockpile must be secured. A 2004 analysis estimated the development and licensing costs for all three types of mOPV, procurement costs for finished product and bulk, operational costs for the mOPV1 evaluation project, and storage costs for up to 20 years.

**Development of GAP III**

With progress in wild poliovirus containment and eradication activities (see section on 'Poliovirus Containment'), the development of a third edition of the Global Action Plan for the Laboratory Containment of Wild Polioviruses (GAP III) continued in 2004. Of note, cessation of routine OPV use requires an expansion of the current wild poliovirus containment policies to include Sabin polioviruses. To this end, GAP III will outline timelines and requirements for facility based wild, vaccine-derived and Sabin polioviruses after OPV cessation. It is envisaged that GAP III will be finalized by the time of the World Health Assembly in 2006.
Development of Sabin inactivated polio vaccine (S-IPV)
Progress towards development of an inactivated polio vaccine from Sabin poliovirus strains (S-IPV), rather than from currently-produced wild poliovirus strains, continued to be made in 2004. The eventual development and licensure of S-IPV could greatly reduce the number of IPV manufacturing sites generating high volumes of high titre wild polioviruses. Accelerated studies to demonstrate both safety and protective efficacy of S-IPV are ongoing, as well as analyses of production and licensing issues and documentation of attenuation after amplification. The prospects for S-IPV development and eventual use continue to be evaluated by WHO.

Highly sensitive disease surveillance: International Health Regulations (IHR)
While countries continue to strengthen AFP surveillance to ensure global certification, at the global level, work is ongoing to ensure long-term event-based reporting of any detected, ‘suspected’ polio cases. Discussions among WHO Member States are ongoing to incorporate polio into the new International Health Regulations (IHR). Additionally, environmental surveillance strategies are being evaluated, and new tools for more rapid detection of wild poliovirus in diagnostic specimens are in the evaluation stage.

OPV Cessation: strong commitment needed to implement preparations
Preparations for the eventual global and simultaneous cessation of OPV will require the same level of international cooperation and coordination that has brought the world to the verge of polio eradication.
The symbolic and substantive importance of establishing a polio-free world for future generations warrants a concerted global effort to eventually stop the routine use of OPV.

Progress against milestones

<table>
<thead>
<tr>
<th>Milestone 1:</th>
<th>Guidelines and consultations on ‘post-OPV’ options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status:</td>
<td>Achieved. Commissioned report on national guidelines for OPV cessation has been completed. Framework for national policy makers has been developed, for distribution at the World Health Assembly in May 2005.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Milestone 2:</th>
<th>Define strategies to rapidly detect circulating viruses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status:</td>
<td>Achieved/ongoing. Laboratory processing time for specimens has been shortened substantially over the past two years. Polio continues to be discussed in the International Health Regulations decision process.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Milestone 3:</th>
<th>Align management with other stockpiles (yellow fever, meningitis, smallpox)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status:</td>
<td>Achieved. Commissioned report on stockpile is completed. Plan and timeline for integration with WHO’s Alert Response Operations team estimated.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Milestone 4:</th>
<th>Research and consult on requirements for Global OPV Cessation phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status:</td>
<td>Achieved. A substantial body of research is in progress, several commissioned papers have been completed and consultations have taken place with selected WHO Regions (AMRO, EMRO, EURO, WPRO, SEARO) to better define: 1. stockpile and response; 2. risks of immunodeficient excretors of vaccine-derived polioviruses (iVDPVs); 3. containment (especially a risk-analysis comparing wild and Sabin poliovirus strains); 4. national guidelines for OPV cessation; 5. development of monovalent OPV type 1 and Sabin IPV (S-IPV); 6. surveillance requirements in the post-OPV cessation era.</td>
</tr>
</tbody>
</table>
7. Mainstreaming of the Global Polio Eradication Initiative

Transition polio “campaign” elements to routine immunization programmes

The overall goal in this area of work is to ensure full functional integration of routine immunization and polio eradication infrastructure at country level. In collaboration with the Global Alliance for Vaccines and Immunization (GAVI), the focus of the work in priority countries is on implementing the “Reaching Every District” (RED) strategies for routine immunization. Polio eradication staff in countries such as Afghanistan, Angola, Bangladesh, Democratic Republic of the Congo, Ethiopia, Pakistan and Sudan work to strengthen immunization systems at the district level by ensuring district level planning during polio eradication activities incorporate the following elements for overcoming the common barriers to accessing immunization services:

(a) re-establishment of outreach services for delivery of Expanded Programme on Immunization (EPI) vaccines;
(b) supportive supervision of health workers at district and health facility level;
(c) advocacy and establishment of community links with service delivery;
(d) monitoring and use of data for action;
(e) planning and management of resources.

In the priority countries, planning at district level is now fully integrated for polio eradication, sustainable measles mortality reduction, neonatal tetanus elimination and safe immunization practices.

Polio eradication: benefiting broader health services

Polio eradication staff worked to strengthen immunization systems at the district level, by incorporating elements of the established polio eradication network to access broad immunization services.

Scaling up of other health interventions

Target 5 of the Millennium Development Goals calls for the reduction of under-five mortality by two-thirds from 1990 levels by 2015. The polio eradication programme provides an exceptional opportunity for the integration of combined child survival interventions. Children who are unreached through routine health services benefit from polio eradication activities. The potential for adding other child survival interventions to NIDs was recognized
in the 1990s with the addition of vitamin A supplementation to campaigns. Integration of vitamin A supplementation during NIDs provides a model for adding child survival interventions with SIAs.

Successful implementation of integrated campaigns has led to scaling up of activities and to an increase in the number of child survival interventions provided during SIAs. Twenty countries routinely add vitamin A supplementation to NIDs. Other interventions include provision of other vaccines, de-worming tablets and insecticide treated nets (ITNs) as part of an integrated campaign.

In a national integrated campaign in Togo in December 2004, an estimated 887,700 children between 9 and 59 months of age received OPV, measles vaccine, mebendazole (de-worming) tablets and ITNs. Vitamin A was distributed with OPV during the previous polio SIA. During two rounds of SIAs, children benefited from five important child survival interventions. Under the coordination of the Interagency Coordination Committees (ICC), a number of international and local partners were brought together to plan and implement the child survival interventions. This has fostered new partnerships and mechanisms to sustain achievements and promote child survival.

Countries that implemented integrated campaigns in 2004 included Burkina Faso, Mali and Niger, where children under five years of age received OPV and measles vaccine and vitamin A. In some districts of the Democratic Republic of Congo tetanus toxoid vaccination was offered to women of child-bearing age.

In Ghana, distribution of ITNs was linked with NIDs in a pilot project in 2004. Vouchers for subsidized ITNs were distributed in twelve districts during polio NIDs. Vaccinators visiting house-to-house to immunize children with OPV distributed 213,000 vouchers for ITNs.

Lessons learned from these integrated experiences are being used in some countries to transition from campaign activities to strengthened routine immunization activities through the implementation of Child Health Weeks. A number of countries in Africa, including Angola, Burundi, Kenya, Malawi, Tanzania, Uganda and Zambia, are planning to deliver comprehensive packages of child health interventions including vaccines, vitamin A, de-worming tablets, ITN distribution and retreatment of bed nets. Additionally, OPV is being added to other immunization campaigns, during ‘fixed post’ activities.

Mainstream polio human resources and institutional arrangements

In 2004, the Global Polio Eradication Initiative, in the context of the Rockefeller-initiated Joint Learning Initiative on Human Resources for Health, began a project to document the approach taken at country level to make sufficient human resources available for the implementation of polio eradication activities. The main objectives of this study are: (1) to document the range of human resources solutions applied; (2) to assess the impact of these solutions on the achievement of polio eradication goals, other health goals and the general health workforce and; (3) to evaluate the replicability of the “polio approach” for other health initiatives.

Two initial country case studies were conducted in 2004 (in India and Vietnam). Information was collected on the polio human resources approach in each country (including the impact
of the human resources approach on achieving polio targets, impact on other services and the health system in general and lessons learned) as well as the objectives and human resources approaches of other major public health programmes (such as tuberculosis, malaria, HIV/AIDS). The study will continue in 2005, including up to three additional country case studies and a survey of polio staff world-wide on the polio human resources scale-up and strategy.

**Progress against milestones**

| Milestone 1: 25% of joint GAVI/Polio priority countries will implement integrated plans | Status: Ongoing. No data available, as new, multi-year plans will be effective in 2005. |
| Milestone 2: 50% of countries will integrate or expand AFP reporting, as appropriate (especially for measles and neonatal tetanus) | Status: Achieved. |
| Milestone 3: 25% of countries will have GAVI-supported ICC and if appropriate, Technical Advisory Group (TAG) | Status: Ongoing. 2004 data not yet available. 2003 progress: 90% of countries (67/75) had ICCs. |
| Milestone 4: 50% of countries will have polio operations which are fully integrated with those for measles | Status: Achieved. 66% of countries with AFP surveillance systems (131/198) have measles surveillance through integration of activities. 84% of polio network laboratories (122/145) conduct measles testing either in the polio laboratory or in the same institute, thereby allowing integration of the infrastructure established for the Global Polio Laboratory Network (e.g. use of similar systems for specimen transportation, data management, communication and reporting results). |
8. Polio Financing

The international community remained strongly committed in 2004 as countries intensified polio eradication activities, providing unprecedented levels of financial support in order to protect the investment in polio eradication and to contain the spread of the virus. When at mid-2004, the Global Polio Eradication Initiative faced an acute funding shortfall that threatened to delay or scale down polio campaigns, WHO borrowed internally to help bridge the gap and long-standing and new donors contributed new funding of US$166 million between June 2004 and January 2005, ensuring that intensified polio campaigns in Africa and Asia could proceed as planned.

Now the critical requirement to consign polio to the history books is international assistance to meet the US$ 50 million funding gap for 2005 by July, and to establish multi-year pledges for 2006-2008, particularly to fill the US$ 200 million gap for 2006.

Ensuring the Interruption of Polio Transmission (US$ 4 billion, 1988-2006)

Fund-raising Initiatives

G8 Africa Action Plan

Following statements of support by G8 leaders at the 2002 Summit in Kananaskis, Canada and at the 2003 Summit in Evian, France, G8 leaders re-affirmed their commitment to a polio-free world at the 2004 G8 Summit in Sea Island, USA. At Sea Island, they pledged to
provide the necessary funding to eradicate polio by 2005 by increasing their own funding and by engaging other donors and organizations to help support the scaling up of activities in African countries in which polio continued to spread.

World Bank/Bill and Melinda Gates Foundation/Rotary-UNF Investment Partnership for Polio
In 2004, the Bill and Melinda Gates Foundation, Rotary International and the United Nations Foundation, together with the US Centers for Disease Control and Prevention collaborated to buy down to zero World Bank loans to Nigeria and Pakistan for OPV, in effect turning the loans to countries into grants. Vaccines were purchased through UNICEF.

Country Level Resource Mobilization
In June 2004, a number of African countries, with the support of UNICEF, WHO and Rotary International, launched a four-month campaign to raise funds at country level to help cover the costs of their intensified polio activities. These efforts resulted in US$ 10 million in new funding.

Intensified Outreach to the Donor Community
Following the 15 January 2004 Ministers of Health meeting, Global Polio Eradication Initiative partners organized meetings with the Ministers of Development Cooperation of a number of OECD countries to update them on the status of the Global Polio Eradication Initiative and funding requirements. Polio partners also sensitized new European Union member countries and non-OECD countries in an effort to generate new funding.

International Financing Facility
The International Financing Facility (IFF) is a UK-backed financing mechanism that aims to rapidly increase the flow of aid to meet the Millennium Development Goals. It proposes to leverage funds from international capital markets by issuing bonds based on legally-binding long-term donor commitments. The Global Polio Eradication Initiative, working closely with the Global Alliance for Vaccines and Immunization (GAVI) and others, has developed an investment case for upfront IFF financing of a vaccine stockpile, as part of the IFF immunization pilot.

Donor Support

Arab Gulf Programme for United Nations Development Organizations (AG FUND)
AG FUND committed US$ 120,000 to support polio eradication activities in Sudan.

Australia
Australia provided US$ 1.5 million to match funds mobilized by Australian Rotarians for polio eradication.

Austria
Austria provided US$ 105,000 for polio eradication activities in sub-Saharan Africa.

Aventis Pasteur (Sanofi Pasteur)
Sanofi Pasteur is the Global Polio Eradication Initiative’s longest standing corporate partner with a total donation of 110 million doses of OPV. The company committed an additional US$ 1.27 million in OPV to the Global Polio Eradication Initiative.
Canada
In 2004, Canada provided US$ 41 million to polio eradication. In response to the polio outbreak in Africa and the G8’s commitment to provide the resources necessary to eradicate polio in Africa by 2005, provided funding for Africa, Nigeria and Pakistan.

US Centers for Disease Control and Prevention (CDC)
In addition to its role as a core technical spearheading partner, CDC provided US$ 72.8 million for OPV, operational costs and programme support to UNICEF and WHO. CDC supported the international assignment of more than 186 long-term epidemiologists, virologists, and technical officers to assist the World Health Organization, UNICEF and polio-endemic countries to implement polio eradication strategies.

European Commission
At the end of 2004, the EC formalized a US$ 70 million pledge for 2005-2006 polio activities in 14 African countries, complementing US$ 15 million it provided in 2004 for Nigeria. The European Commission Humanitarian Office (ECHO) provided US$ 500,000 for Guinea, Liberia and Sierra Leone.

Finland
Finland continued its support of the polio reference laboratory in Helsinki.

France
France joined the Polio Eradication Initiative, supporting the G8 commitment to polio eradication by providing US$ 12 million as part of its US$ 36 million commitment for 2004-2006.

Germany
Germany continued its support to the programme in India by providing US$ 21.57 million for OPV and complemented this support with US$ 1.1 million in global funding.

Italy
Italy, in support of the G8 commitment to polio eradication pledged US$ 16 million for 2004-2006 activities and continued its support to India’s polio eradication effort.

Ireland
Ireland provided US$ 1.2 million in unspecified funds.

Japan
A key, major long-term donor to the programme, Japan contributed more than US$ 33 million for OPV, cold chain and logistics in priority countries in 2004, bringing its total contribution to more than US$ 260 million.

Luxembourg
In 2004, Luxembourg provided US$ 1 million, bringing its total support to polio eradication efforts in Africa to more than US$ 4 million.

Malaysia
In follow-up to its leadership of the OIC and in support of the OIC’s 2003 polio resolution for its Member States to provide financial assistance to eradicate polio, Malaysia provided US$ 1 million to the Global Polio Eradication Initiative.

Monaco
Monaco provided US$ 50,000 for polio eradication activities in Niger.
New Zealand
New Zealand provided US$ 136,000 in global funds to the Global Polio Eradication Initiative through Rotary International.

Norway
Norway continued its strong support to polio eradication with US$ 7 million in global funding, additional funding for Nigeria's polio programme and by encouraging other Nordic countries to provide support for the Global Polio Eradication Initiative.

Oman
Oman provided US$ 100,000 to the Global Polio Eradication Initiative to support activities in the WHO Eastern Mediterranean Region.

Portugal
In 2004, Portugal provided US$ 400,000 for polio eradication activities in Angola.

Qatar
Qatar provided US$ 300,000 to support activities in the WHO Eastern Mediterranean Region in response to the OIC's polio resolution.

Rotary International
Spearheading partner Rotary International is the largest private sector donor to the Global Polio Eradication Initiative. Rotary International continued to generate funds from its successful 2003 membership fundraising drive, which by January 2005 had raised US$ 123 million. Rotary International's total contribution to the polio eradication effort since 1985 has exceeded US$ 500 million, and will top US$ 600 million by the time the world is certified polio-free.

Russian Federation
To support the G8's pledge to fund polio eradication, the Russian Federation committed an additional US$ 4 million over three years, bringing Russia's total commitment to US$ 8 million for 2004-2006.

Spain
In 2004, Spain provided US$ 2.5 million for polio activities and vaccine in Africa as well as specific support for the AFP surveillance system in Angola and Mauritania.

Sweden
Sweden complemented its long-standing support to child health with an extraordinary US$ 30 million polio contribution at the end of 2004. These funds gave the green light to Africa’s synchronized cross-border immunization campaigns in the first quarter of 2005.

UNICEF National Committees
In 2004, the UNICEF National Committees from Canada, Finland and the United Kingdom contributed US$ 605,000 for activities related to the eradication of polio in Nigeria, Chad and Iraq. Global thematic funds for immunization plus, raised by National Committees, were allocated to Mali (US$ 200,000).

United Arab Emirates (UAE)
UAE continued its support the Global Polio Eradication Initiative by providing US$ 500,000 to the programme in Pakistan.
United Kingdom’s Department for International Development (DFID)
DFID’s total polio contributions reached US$ 470 million in 2004, with new funding provided globally, and for activities in India, Nepal, Bangladesh and Myanmar. In all, the UK provided US$ 92 million to polio eradication in 2004. The UK continued to play a critical role in encouraging other donors, both within and outside of the G8, to follow the UK’s lead in ramping up support to polio eradication.

The US Agency for International Development (USAID)
USAID continued its support for global polio eradication activities with US$ 29.4 million in 2004 funding. USAID is the largest donor to the Global Polio Laboratory Network and supports the work of surveillance officers in Africa and South Asia. It also supported vaccine delivery in key countries, and helped raise awareness to increase community-level participation in polio immunization.

United Nations Foundation (UNF)
The UN Foundation continued its critical support to strengthen the Global Polio Eradication Initiative’s fundraising capacity as well as its collaboration in the World Bank/Gates/Rotary-UNF Investment Partnership. UNF played a critical role in outreach to non-OECD donors.

World Bank/Government of India
The World Bank provided US$ 83 million for OPV to India. The Government of India provided US$ 8.5 million in matching funds.
9. Prospects for 2005

Stopping transmission of wild poliovirus
The highest priority for the Global Polio Eradication Initiative and the primary focus for 2005 is the rapid interruption of wild poliovirus transmission in the six remaining endemic countries, and in the six countries where polio transmission was re-established in 2004.

At Ministerial Meetings on polio eradication held in Geneva in January and February 2005, Ministers of Health from the most polio-affected countries in Africa and Asia agreed to an unprecedented intensification of supplementary immunization activities, to reach every child under five years of age with multiple doses of OPV in 2005 to stop polio transmission, and again in 2006 to ensure polio transmission has been interrupted.

While countries committed to meeting the end-2005 goal for global eradication (and the goal is technically feasible), there are three geographic risks to the end-2005 target date:

1. Asia: risk that polio transmission continues in any or all of the three polio-endemic countries in Asia through 2006, due to high burden of disease and geographic extent of poliovirus. Given the strong progress achieved in 2004 in Asia, this risk is assessed as low to moderate, as of April 2005.

2. Africa: risk that polio transmission continues in polio-endemic countries and countries with re-established transmission in Africa through 2006, due to high burden of disease and geographic extent of poliovirus. Given gaps in campaign quality in a number of countries, including key states in northern Nigeria, this risk is assessed as high, as of April 2005.

3. Further spread of polio in Africa: risk that poliovirus spreads further in Africa, particularly into the Horn of Africa. Given the low immunity levels in many African countries, and the already-extensive geographic reach of the 2003-2004 polio epidemic, this risk is assessed as high, as of April 2005.

Geographic risks to end-2005 target date:
1. Ongoing transmission in Asia (risk classification: low to moderate)
2. Ongoing transmission in Africa (risk classification: high)
3. Further spread of poliovirus in Africa (risk classification: high)
Risk classifications will be re-assessed in August/September 2005, following analysis of full available data from the polio ‘low transmission’ season in the first half of the year.

In addition to the geographic risks to achieving global polio eradication, two additional risks could threaten to delay this goal.
1. Ongoing sub-national surveillance gaps: the detection of viruses in Chad and Sudan thought to have been eliminated underlines the importance of urgently strengthening surveillance at sub-national level in all affected and high-risk countries. Strong surveillance ensures the rapid detection of any potential importations, and is essential to fully ensure the interruption of wild poliovirus circulation in any country.

2. Ongoing funding gap: a global funding gap of US$ 50 million must urgently be filled by July 2005, to ensure that immunization activities in the remaining endemic and high-risk countries can proceed in the latter half of the year. An additional US$ 200 million is needed for 2006 activities.

Additional risks to end-2005 target date:
1. Ongoing sub-national surveillance gaps
2. Ongoing funding gap

Intensification of OPV cessation
The second priority for the Global Polio Eradication Initiative in 2005 is the ongoing intensification of OPV cessation work.

The intensification in 2005 will build on work started in 2004 and will focus on:

1. Development of stockpile of monovalent OPV: an international stockpile of types 1, 2 and 3 monovalent OPV is needed to allow a type-specific response to any potential circulating polioviruses. Following the development in late 2004 and early 2005 of a monovalent OPV type 1 (mOPV1), the Global Alliance for Vaccines and Immunization (GAVI) and the International Financing Facility (IFF) for Immunization are expected to review an investment case for upfront stockpile funding in mid-2005.

2. Development of a third edition of the Global Action Plan for Laboratory Containment of Wild Polioviruses (GAP III): as cessation of routine OPV use requires an expansion of the current wild poliovirus containment policies to include Sabin polioviruses, GAP III will outline timelines and requirements for facility based wild and Sabin polioviruses after OPV cessation. It is envisaged that GAP III will be finalized by the time of the World Health Assembly in 2006.

3. Increase in highly-sensitive surveillance for circulating polioviruses: an essential part of preparations for OPV cessation, highly sensitive surveillance for circulating polioviruses is required to confirm the interruption of wild poliovirus transmission, document the elimination of Sabin strains and rapidly detect potential re-introduction or re-emergence of any poliovirus. With all countries strengthening AFP surveillance to ensure global certification, at the global level, event-based reporting for ‘suspected’ polio cases will need to be fully incorporated into the new International Health Regulations (IHR). With discussions among Member States on the new IHR proceeding, reporting of polio could become mandatory as early as end-2005.

All countries must simultaneously stop OPV
World Health Assembly resolution on timing and process for simultaneous OPV cessation could be required in 2006

All countries will need to simultaneously stop the use of OPV for routine immunization, to ensure that no country is inadvertently put at risk of importing a circulating vaccine-derived poliovirus (cVDPV) from a country which continues to use OPV. Depending on
the date of interruption of wild poliovirus transmission in the remaining polio-affected
countries, and progress in preparations for global OPV cessation, a World Health Assembly
resolution outlining the precise timing and process for simultaneous OPV cessation by all
remaining OPV-using countries could be required as early as 2006.

2004 saw the most important progress ever towards achieving the goal of
a polio-free world. With unprecedented and ongoing commitment, the world has a unique opportunity to finish polio once and for all, and achieve a historic and unique global public good, for the benefit of all future generations.
### 10. Glossary of terms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACPE</td>
<td>Advisory Committee on Poliomyelitis Eradication</td>
</tr>
<tr>
<td>AFP</td>
<td>Acute flaccid paralysis</td>
</tr>
<tr>
<td>AFRO</td>
<td>WHO African Region</td>
</tr>
<tr>
<td>AMRO</td>
<td>WHO Region of the Americas</td>
</tr>
<tr>
<td>CDC</td>
<td>US Centers for Disease Control and Prevention</td>
</tr>
<tr>
<td>cVDPV</td>
<td>Circulating vaccine-derived poliovirus</td>
</tr>
<tr>
<td>DFID</td>
<td>Department for International Development (DFID)</td>
</tr>
<tr>
<td>EC</td>
<td>European Commission</td>
</tr>
<tr>
<td>EMRO</td>
<td>WHO Eastern Mediterranean Region</td>
</tr>
<tr>
<td>EURO</td>
<td>WHO European Region</td>
</tr>
<tr>
<td>EPI</td>
<td>Expanded Programme on Immunization</td>
</tr>
<tr>
<td>GAVI</td>
<td>Global Alliance for Vaccines and Immunization</td>
</tr>
<tr>
<td>GCC</td>
<td>Global Commission for the Certification of the Eradication of Poliomyelitis</td>
</tr>
<tr>
<td>ICC</td>
<td>Interagency Coordinating Committee</td>
</tr>
<tr>
<td>IFF</td>
<td>International Financing Facility</td>
</tr>
<tr>
<td>IPV</td>
<td>Inactivated polio vaccine</td>
</tr>
<tr>
<td>ITN</td>
<td>Insecticide treated net</td>
</tr>
<tr>
<td>mOPV</td>
<td>Monovalent oral polio vaccine</td>
</tr>
<tr>
<td>NCC</td>
<td>National Certification Committee</td>
</tr>
<tr>
<td>NID</td>
<td>National Immunization Days</td>
</tr>
<tr>
<td>OIC</td>
<td>Organization of the Islamic Conference</td>
</tr>
<tr>
<td>OPV</td>
<td>Oral polio vaccine</td>
</tr>
<tr>
<td>RCC</td>
<td>Regional Certification Commission</td>
</tr>
<tr>
<td>S-IPV</td>
<td>Sabin inactivated polio vaccine</td>
</tr>
<tr>
<td>SEARO</td>
<td>WHO South-East Asia Region</td>
</tr>
<tr>
<td>SIA</td>
<td>Supplementary immunization activity</td>
</tr>
<tr>
<td>SNID</td>
<td>Sub-national Immunization Days</td>
</tr>
<tr>
<td>tOPV</td>
<td>Trivalent oral polio vaccine</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>UNF</td>
<td>United Nations Foundation</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>VAPP</td>
<td>Vaccine-associated paralytic polio</td>
</tr>
<tr>
<td>VDPV</td>
<td>Vaccine-derived poliovirus</td>
</tr>
<tr>
<td>WHA</td>
<td>World Health Assembly</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
<tr>
<td>WPRO</td>
<td>WHO Western Pacific Region</td>
</tr>
</tbody>
</table>