

# Annex A: Endemic country SIA quality specifics

Each of the three remaining endemic countries is implementing an Emergency Action Plan that focuses on eradication. Detailed endemic country eradication strategies reflecting the changing scenarios in each country and evolving epidemiology can be found in each country's plan at <http://www.polioeradication.org/>. This Annex describes plans to strengthen immunization systems and address the security situation in each country. The GPEI's Strategic Framework for Polio Eradication under Complex Security Threats is available upon request.

## AFGHANISTAN

“Afghanistan will do all it can to fight polio in Afghanistan and also in other countries where polio is still present.”

PRESIDENT OF AFGHANISTAN HAMID KARZAI, HIGH-LEVEL POLIO EVENT, UNITED NATIONS GENERAL ASSEMBLY, NEW YORK, 27 SEPTEMBER 2012

### Overview

1. Afghanistan has successfully interrupted indigenous WPV transmission in all but one region of the country – Southern Region. In this region, the provinces of Kandahar and Helmand have been responsible for maintaining continued endemic WPV transmission, repeatedly reinfecting other provinces of the country and exporting poliovirus to neighbouring Pakistan. Achievement of a polio-free Afghanistan depends on all provinces in Southern Region overcoming the barriers to implementing the strategies that have yielded success elsewhere in the country while maintaining high-quality activities and rapid outbreak response in polio-free areas. The recent top-level government commitment to achieving polio eradication from President Hamid Karzai, along with a well-established track record for problem solving, innovation and close coordination among partners and government, means that the key ingredients for success are in place to rapidly achieve the as-yet elusive goal of a polio-free Afghanistan.

### Epidemiology

2. All WPV cases in Afghanistan since 2010 have been WPV type 1. The last case of polio due to WPV3 was recorded in April 2010. The last case of WPV2 was in 1997, although cases due to the emergence of cVDPV type 2 have occurred since, the most recent cases having been reported in February 2013.

3. More than 70% of all polio cases in Afghanistan since 2010 have been reported in just 2 of 34 provinces (Kandahar and Helmand), representing less than 10% of the total population. This trend continued in 2012, with these two provinces reporting 22 of 37 cases (59%). The remaining 15 cases in 2012 were reported from seven other provinces: Kunar, 4; Khost, 3; Nangarhar, 2; Paktya, 2; Uruzgan, 2; Ghor, 1; and Farah, 1. An analysis of WPV genetic data by the regional polio reference laboratory in Islamabad shows the continuing reduction in genetic diversity, indicating the elimination of circulating poliovirus strains, and confirms the southern endemic zone as the main source of continued WPV transmission in the country, with only sporadic cases due to cross-border transmission from Pakistan.

4. Polio continues to paralyse primarily young children in Afghanistan: 70% of cases in 2012 were in children under two years of age, meaning a lifetime of disability and increased risk of early death. Polio occurs in these children because they are heavily under-immunized compared with the general population; more than 57% of cases in 2012 had received less than three doses of OPV and approximately 33% had never received one dose of OPV (zero dose). This represents a failure of the programme to reach these children with either routine immunization services or repeated supplementary immunization campaigns. Understanding and overcoming the reasons these children and communities are missed is the key to achieving a polio-free Afghanistan.

### **Reasons for continued poliovirus transmission**

5. Kandahar and Helmand provinces are the only remaining reservoir for endemic poliovirus transmission in Afghanistan. These two provinces frequently feature in global headlines due to intense conflict and insecurity and many have questioned whether it is even possible to reach enough children to interrupt polio transmission in such a volatile context. Without question, this setting acutely complicates the implementation of the polio programme's strategies. However, programme data show that most children are not missed because of conflict and insecurity but due to continued weaknesses in delivering OPV to relatively accessible communities.

6. An analysis conducted by the Government of Afghanistan, with support from WHO and UNICEF, showed that 80% of children identified by vaccinators as "missed" during a campaign were from areas in Southern Region without severe conflict and insecurity. Further, the analysis shows these children were missed because the vaccination team did not visit the house (30%), the child was absent from the house when the team visited (50%), the child was reported by parents and caregivers as being sick or asleep at the time of the team visit (15%), or the caregivers refused to have the child immunized (5%). The remaining 20% of overall missed children were located in areas where access was compromised due to insecurity and conflict. In these areas, the children were missed primarily due to the reluctance of field workers to conduct the activity because of a perception of insecurity or a lack of agreement for the activity by anti-government elements. With considerable human resource surge support in Afghanistan, the programme is meticulously tracking the reasons for missed children and using this information to inform the development of strategies to be implemented over 2013-2014 to ensure access to children whenever and wherever possible.

### **What's new? Strategies for success in Afghanistan**

7. The strategies in Afghanistan are designed to maximize the programme's reach to accessible children during each SIA and in routine immunization (particularly in the endemic Southern Region) and to reduce the number of children missed at each successive round. These strategies are being implemented in the context of high-level oversight and accountability and with the support of an expanding, increasingly better trained field workforce. The guiding document for these strategies is the National Emergency Action Plan developed by the Government of Afghanistan with the support of its partners and officially launched by His Excellency the President.

### Reaching chronically missed children in SIAs and routine immunization

8. **Improved SIA microplanning:** The Afghanistan polio programme is expanding existing microplans to improve operations. First, given the unpredictable security and conflict situation in the polio priority areas, all microplans will include a detailed analysis of the access realities of each area. Direct or third-party negotiations will be pursued in the most insecure areas with the aim of exploring conditions agreeable for activities to proceed (this could include flexibility in the timing of campaigns, the type of vaccinators involved or the means of vaccine delivery – fixed-post or limited house-to-house). When activities can proceed in areas that have not had OPV for an extended period, the programme will immediately seek to deliver multiple doses at short intervals (SIADs) and offer a broad range of health interventions during that window of opportunity. In all areas, additional mobile teams will be deployed to increase the opportunity to immunize children outside of the household – on the street, at playgrounds or at markets. Finally, the procedure for recording missed children and revisiting households with missed children during or immediately after the campaign will be regularly reviewed, revised and closely tracked to provide maximum opportunities to reach every child.

9. **Better selected, trained, monitored and supported front-line workers:** A primary strategy will be to establish appropriate vaccinator selection committees with local membership, guided by partner organization staff to find workers who are both acceptable to the local community and as accountable as possible. In the Afghanistan context, local customs restrict easy entry into the household, requiring the recalibration of vaccinator teams to include females whenever possible. Other options will be explored in areas where this is opposed, including recruiting females accompanied by male family members, recruiting local birth attendants, etc. Efforts will be increased to equip all teams with attractive health incentives – items to benefit newborns and other children and motivate caregivers to vaccinate all children, even those sleeping, playing in the street, sick or newborn. Finally, the capacity development of front-line workers is being revised to be more practical and hands-on and to include interpersonal communication skill building to equip teams for success at the household.

10. **Mobilized communities:** Community engagement is a core strategy for success. In priority districts of Afghanistan, a full-time community mobilization network is being developed incorporating two types of mobilizers: those who work at the household level and those who can reach out to community leaders. At the household level, mobilizers will dialogue with caregivers about immunization and other integrated health interventions and encourage the immunization of their children in both routine immunization and every polio round. At the community level, religious, health and other local leaders will be identified and engaged to support the programme, and important social gatherings where vaccines can be distributed will be systematically identified. All activities will be supported by an overarching media campaign and messages on the radio and other media outlets.

11. **Monitoring and supervision leading to corrective action:** Lessons learnt from India show that monitoring is most effective when it results in immediate, in-course corrective actions. The Afghanistan programme is revising its monitoring procedures so findings can be available for daily evening meetings during polio immunization activities where required actions and accountable persons will be identified for immediate follow-up. The programme

will also introduce LQAS<sup>34</sup> as the gold standard for assessing campaign performance and use this data to track trends in the quality of immunization campaigns.

#### **12. Responding to polio outbreaks in areas outside of the endemic transmission zone:**

To protect the gains in areas that have succeeded in interrupting endemic poliovirus transmission, all provinces in Afghanistan will conduct at least four supplementary immunization campaigns per year to boost immunity achieved via routine immunization. Further, a national outbreak response team will be established to visit any province outside the southern endemic zone that reports a polio case to engage with the provincial governor and provide technical support for conducting the required immunization outbreak response. Any case reported outside the southern endemic zone will be covered by at least three large-scale, short-interval outbreak response immunization activities launched within two weeks of case notification.

**13. Other innovations:** The programme in Afghanistan has an established track record for finding innovative solutions to seemingly intractable problems. One such solution that will be expanded is the use of permanent polio teams. In areas of insecurity, vaccinators are hired on a permanent basis and requested to visit households in a continual cycle – outside the timing of campaigns. The permanent polio teams are trusted local people, supported by regular resupplies of vaccine and supervision. Efforts to immunize travellers at major transit points and border crossings will be redoubled, including Standard Operating Procedures for district-to-district cross-border coordination and the systematic exchange of information. Immunization teams will continue operation on both sides of the Pakistan/Afghanistan boundary at all major border crossings.

### **Routine immunization**

14. In conjunction with immunization partners, the GPEI will help support national government efforts to intensify routine immunization efforts across the country. Quarterly Expanded Programme on Immunization (EPI) meetings will be conducted with NGOs to review performance progress, while monthly meetings will be held in priority areas – including in Southern Region. Clearer linkages will be identified and built between polio and routine immunization. AFP surveillance data and active polio surveillance visits will be used to help monitor routine immunization efforts. Finally, polio staff and systems will be leveraged to communicate routine immunization services to local populations to generate awareness and demand.

### **Ensuring effective oversight and accountability**

15. Accountability for activities and the delivery of results are instrumental to achieving implementation of the key national strategies. Accountability in Afghanistan must involve the front-line field workers, the international partners supporting the activity and district/provincial government officials ultimately tracked at the highest level, the Office of the President. An accountability framework has been developed with clearly identified terms of reference for each

<sup>34</sup> The Lot Quality Assurance Sampling (LQAS) method classifies areas of interest corresponding to “lots” as having acceptable or unacceptable levels of vaccine coverage. This method detects pockets of low vaccine coverage and therefore directs focused vaccination efforts.

polio manager at the provincial and district levels, along with reporting lines, processes of performance appraisals against clear deliverables and follow-up action based on the appraisal results that will be used to gauge progress and take appropriate action.

16. To ensure the full engagement of government structures, the President of Afghanistan has assigned a Focal Person for Polio Eradication to liaise between the office of the Minister of Public Health and the President, engage and ensure the accountability of the provincial and priority district governors, and support and monitor assistance provided by other ministries and international partners. Provincial governors – particularly the Governors of Kandahar, Helmand, Uruzgan, Kunar and Farah – will be requested to engage district governors and members of Shura to oversee the quality of vaccination campaigns. Provincial governors will submit reports on each vaccination round to the office of the President and Ministry of Public Health, and quarterly polio eradication meetings between provincial governors and the President will be held.

17. Polio Control Rooms will be established at the national level and in all high-priority districts and provinces. Their purpose is to be the real-time link between the district, provincial and national levels to facilitate the real-time monitoring of the campaign and provide in-course guidance to the field.

### **Human resource surge support and enhanced technical assistance**

18. The Government of Afghanistan's partners in polio eradication will provide support for these activities by considerably expanding the number of field-based staff in priority areas. UNICEF is bolstering the Immunization Communication Network<sup>35</sup> to cover at least 90% of the low-performing and priority districts through both full-time and campaign-specific social mobilizers. WHO is working with the Government of Afghanistan to hire additional polio officers in all low-performing districts. Together, both partners will conduct a series of technical and managerial trainings of district EPI management teams and other relevant staff to increase capacity.

### **Outcome**

19. Full implementation of the activities outlined above will increase accountability, address the root problems of SIA quality and increase community engagement in the worst-performing areas. To make sure the programme remains on track in implementing these activities, at least two meetings per year of the Technical Advisory Group for Polio Eradication in Afghanistan will be convened to assess progress and recommend corrective action to the government. The outcome should be increased campaign quality measured using LQAS, resulting in increased immunity in the population of Southern Region and, ultimately, the interruption of endemic WPV transmission from Afghanistan by the end of 2014.

<sup>35</sup> The Immunization Communication Network is a social mobilization network operating in the eastern, western and southern regions of Afghanistan. Most of the front-line workers are deployed to the high-risk Southern Region.

## PAKISTAN

“Eradicating polio is a national priority for Pakistan and is also a personal mission for my family.”

PRESIDENT OF PAKISTAN ASIF ALI ZARDARI, HIGH-LEVEL POLIO EVENT,  
UNITED NATIONS GENERAL ASSEMBLY, NEW YORK, 27 SEPTEMBER 2012

### Overview

1. Despite a complex and volatile security backdrop, including attacks on polio health workers, the polio eradication programme in Pakistan made substantive and fundamental improvements to its strategic and operational approaches in 2012. Most crucial was the transformation in the level, intensity and structure of government oversight, programme operations management and performance accountability. These steps, coupled with intensified partnership support bolstered by a human-resource surge, have led to an impressive reversal in the direction of a programme that was spiralling downward as it faced a series of escalating polio outbreaks between 2008 and 2011. Based on the progress and the lessons learnt in 2012, the programme has identified and refocused its strategic priorities and updated the National Emergency Action Plan 2013, calling it the “Last Low Season” for polio in Pakistan.

2. The episodes of violence against health workers, including polio vaccinators, in 2012 and escalating social disruption in advance of national elections expected in the spring of 2013 undoubtedly pose formidable challenges to the programme in Pakistan. While the strategic priorities and the road map to interrupt poliovirus transmission are clear, the programme is taking steps to maintain the continuity of operations, sustain progress and minimize any losses to gains achieved in 2012 even if unable to access or conduct immunization activities in certain areas.

### Epidemiology

3. Multiple important and encouraging epidemiological developments took place in 2012, signalling significant progress towards the eradication of polio. Of the three previously established polio reservoirs – the FATA and adjoining KP province, certain suburbs of Karachi and three districts in Baluchistan that make up the “Quetta Block” – in 2012 transmission continued only in the FATA-KP reservoir. The number of polio cases fell threefold, from 198 cases in 2011 to 58 cases in 2012. The number of areas with recorded poliovirus cases fell from 60 districts in 2011 to 28, and the programme witnessed a substantial reduction in the genetic diversity of WPV1, falling from 11 genetic clusters isolated in 2011 to 4 in 2012. With the exception of KP, all provinces saw a decline in the number of cases during the high poliovirus transmission season. Finally, no WPV3 has been detected in environmental surveillance in Pakistan for more than two years and the most recent type 3 polio case occurred in April 2012.

4. Reducing the number of missed children through higher quality campaigns is the key factor that underpinned this progress in 2012. LQAS, the most objective measure to directly estimate the quality of polio campaigns, has shown a steep and consistent trend in the improvement of campaign coverage. Using LQAS, whereas only 18% of lots were accepted at 95%

vaccination coverage during the January 2011 polio campaigns, 78% of lots were accepted at 95% coverage during the October 2012 SIA. Even in KP province, which experienced an outbreak in 2012, LQAS trends show significant improvement – from 35% lots accepted at 95% in May 2011 to 90% in October 2012. Consistent with these data, the proportion of “zero OPV dose” children declined in all areas of Pakistan from 2011 to 2012, with the exception of FATA. The implementation of the National Emergency Action Plan and the strong progress achieved in 2012 have positioned the programme in Pakistan to make a concerted effort to stop polio transmission in 2013-2014.

### **Reasons for continued poliovirus transmission**

5. A combination of factors has led to continued poliovirus transmission in Pakistan, including inaccessibility in FATA and parts of Karachi, remaining gaps in programme management, transparency and performance accountability, suboptimal vaccination team selection, inadequate engagement of local-level communities, and gaps in the follow-up of missed children and corrective actions. These factors have been compounded by a complex and unstable security environment and by the fact that routine immunization coverage has fallen rapidly in all of Pakistan’s provinces over the last two years, threatening population immunity to polio, particularly to type 2 poliovirus (in the Quetta Block, an outbreak of cVDPV type 2 emerged in late 2012 with cross-border spread to adjoining areas of Afghanistan).

6. Despite these challenges, access to children in some areas has improved considerably. In FATA, for instance, the number of inaccessible children has fallen from 327 000 at the end of 2009 to 64 000 by March 2012. However, inaccessibility in parts of Khyber Agency has persisted and militant leaders announced a ban on polio vaccination of children in North and South Waziristan in mid-2012, withdrawing access to an estimated 260 000 children. These developments have further underscored the importance of social mobilization, broad stakeholder engagement, political advocacy and civil-military cooperation in access-compromised areas.

7. Important lessons are being learnt on managing security challenges in contexts like Gadaap, Karachi, where a polio worker was killed in July 2012. Following this incident, the local district administration took control of the situation and conducted well-planned vaccination campaigns, including strategically deployed security personnel, the mobilization of suitable vaccinators and consistent engagement with the local community and their leaders.

8. The disproportionate representation of Pashtun populations among polio cases (85% in 2012), the isolation of polioviruses from environmental surveillance linked with circulation in KP and FATA, and lower polio vaccination rates coupled with lower awareness of polio vaccination among Pashtun compared with non-Pashtun populations highlights the fact that the programme continues to fail to reach, engage and serve Pashtun populations adequately. The fact that Pashtun populations are highly mobile, both across the border into Afghanistan and into areas like Gadaap, Karachi, underlines the need to urgently engage Pashtun populations for polio immunization. As Pakistan and Afghanistan comprise a single epidemiologic block for polio, with continued cross-border transmission of polioviruses (principally across the southern border in Balochistan and the northern border in FATA), the successful interruption of poliovirus will increasingly require synchronous progress in both countries.

### What's new? Strategies for success in Pakistan

9. While significant challenges are being encountered in Pakistan, important lessons continue to be learnt and valuable insights gained through the implementation of the National Emergency Action Plan. Based on the impact achieved, lessons learnt and remaining programme challenges following the implementation of an augmented National Emergency Action Plan 2012, in consultation with partners the Government of Pakistan has developed the National Emergency Action Plan 2013. Its overarching goal is to interrupt poliovirus transmission by the end of 2013. The major thrust of the plan is to aggressively implement the major strategic priorities in the National Emergency Action Plan during the 2013 low poliovirus transmission season in Pakistan.

### Reaching chronically missed children in SIAs and routine immunization

10. **Focused vaccination of high-risk groups and areas with SIAs/SIADs:** A more refined high-risk approach has clearly defined the key polio reservoirs, the high-risk districts and within them the worst-performing and high-risk union-councils.<sup>36</sup> A very aggressive schedule of polio vaccination campaigns is being conducted in these areas of FATA, central KP, Quetta Block and selected parts of Karachi, and in the populations from these reservoirs settled elsewhere (Pashtun settlements in Lahore, Rawalpindi, Faisalabad and Hyderabad), with up to six vaccination campaigns in the 2012-2013 low season. The mainstay of the SIA strategy is the application of the SIAD regimen in reservoir and high-risk areas. Given the lower vaccination rates among Pashtun children and the disproportionately high incidence of polio in this population, the programme is developing detailed mapping of these communities outside FATA and KP, and special communications and operational strategies to engage and reach the children in Pashtun communities, and expanding its transit strategy to increase the establishment of vaccination posts at major transit points and in movement corridors frequented by these populations.

11. **Integration of operations and communications microplans:** The responsibility for planning and implementing polio vaccination campaigns is now assigned to the District Commissioner, who is the chief executive officer of the district. The District Commissioner will assign responsibility for microplanning and vaccination team and supervisor selection to the union-council medical officer instead of to the paramedical zonal coordinators, many of whom were chronically underperforming and/or misappropriating resources. The full integration of operational and communications microplans to engage and reach high-risk populations is a key priority. Although support for operational microplanning and community mobilization has been intensified in high-risk areas, the two planning streams still need to be fully integrated to address both the operational and social factors responsible for children missed during vaccination campaigns and to enable systematic follow-up to vaccinate these children. Microplans will be developed in coordination with all stakeholders in the union-council to include integrated area-specific operational and community engagement activities.

12. **Real-time monitoring:** Intra-campaign monitoring with real-time in-course data review in the district Polio Control Room evening meetings is essential to enable immediate corrective actions during the active phase of campaign implementation. The programme has established clear indicators of campaign preparedness with the creation of a “campaign dashboard” that triggers the deferral of campaigns in union-councils that do not meet preparedness criteria. The wide use of LQAS to assess campaign quality in the worst-performing areas has also proven hugely beneficial in documenting improvements in the vaccination of children, reflecting the continued need to improve the quality of independent monitoring. To enable planning for campaign preparedness, monitoring and corrective action, district Polio Control Rooms are being established, where the newly formed district and union-council Polio Eradication Committees can meet to ensure cross-sectoral coordination.

### Vaccinating children in insecure areas

13. A major priority for 2013-2014 is intensified and increasingly operational civil-military cooperation. The coordination of security with local authorities to generate continuous area-specific risk assessments has been institutionalized with the emergency constitution of Provincial Security Coordination Committees for polio eradication. These committees are comprised of senior officers from law enforcement and security forces. Under this umbrella, local heads of security agencies are now members of the district polio eradication committees. Based on local security assessments, campaign implementation is adjusted with modified operational tactics and flexible microplanning (speed of operations, phased implementation, fixed-site versus house-to-house delivery, level of visibility), and with tailored communications combined to optimize the security of polio workers in the local context.

14. The engagement of community leaders, local imams, parents and youth groups is being intensified to support the programme and provide community vigilance and protection to health workers. New alliances and partnerships with Muslim and Islamic institutions have been established and communications strategies tailored to the local context with field-tested materials to generate acceptance for OPV. The programme is also exploring the viability of delivering additional health services to overcome fatigue with, or mistrust of, campaigns in specific areas.

15. The two implementing partners, WHO and UNICEF, are taking a number of steps to ensure their intensified support of the programme despite the escalation in security threats. Both agencies have developed security access operations plans with “Stay and Deliver” strategies for each unique polio reservoir. Crucially, the agencies will maximize the use of local versus international staff, with expertise in conflict management, political mapping and associated skills.

### Routine immunization

16. In conjunction with immunization partners, the GPEI will work closely to expand routine immunization reach, including within Pashtun populations. The GPEI supported field staff will help harmonize polio SIA microplans with routine immunization microplans to identify populations unreached by routine services. The GPEI will assist and advocate with local authorities to establish immunization services in the most vulnerable populations. Immunization sessions and the availability of logistics and human resources will be systematically monitored

and locations with poor routine immunization coverage will be mapped. Communications on polio eradication will include customized messages for high-risk populations to increase awareness and demand for immunization. The responsibilities and specific tasks of GPEI staff will be clearly defined and monitored for supporting routine immunization services.

### **Ensuring effective oversight and accountability**

17. Substantial changes have taken place in Pakistan to ensure effective oversight and accountability. At the highest level, polio eradication was declared a national emergency by the President of Pakistan in 2012, resulting in the constitution of a National Task Force on Polio Eradication chaired by the Prime Minister and composed of provincial chief ministers and chief secretaries, and the appointment of a cabinet-level leader as the Prime Minister's Focal Person on Polio Eradication to head the newly created Polio Monitoring Cell in the Prime Minister's secretariat. In addition, a Polio Control Room was created in each province. The government launched the National Emergency Action Plan 2013 with direct oversight of its successful implementation by the National Task Force on Polio Eradication.

18. With guidance from the National Task Force on Polio Eradication and the increasing effectiveness of the Prime Minister's Polio Monitoring Cell, provincial support and oversight continues to improve, as has the engagement of District Commissioners and the formation of district and union-council polio eradication committees. The real enforcement of performance accountability using objective and standard criteria has been achieved through a Monitoring Framework that can deliver real-time district performance to the highest levels of government. Important gaps remain, however, in the full operationalization of the provincial and district Polio Control Rooms and the optimal functioning of the union-council Polio eradication Committees. To tackle this shortcoming, a senior (secretary-level) officer will be appointed to oversee and manage the provincial Polio Control Room in the office of the Chief Secretary of each province.

### **Human resource surge support and enhanced technical assistance**

19. To support the full implementation of the augmented National Emergency Action Plan and drive local efforts to stop the circulation of poliovirus in 2013, Pakistan has recruited thousands of additional field workers to support local union-council and district authorities, further bolstered by the UNICEF and WHO human resource surge, with more than 1,350 new workers deployed in high-risk districts and union-councils.

20. After successful pilots in 2012, the polio programme will fully implement the Direct Disbursement Mechanism that pays vaccinators and other campaign field workers directly through bank transfers. This crucial strategy not only ensures vaccinators are paid fully and promptly, but encourages the selection of appropriate vaccinators rather than child or "ghost" vaccinators. Special strategies are being employed to engage female community members as vaccinators in high-risk areas, accompanied by male family members when required. Capacity development initiatives, including the training of front-line workers in interpersonal communications skills to maximize the effectiveness of interaction with caregivers, are being set up to improve performance, while the enforcement of performance

accountability is now possible using objective and standard criteria through a framework that includes district and provincial Control Rooms, the Prime Minister's Polio Monitoring Cell and the National Task Force on Polio Eradication.

## Outcome

21. Full implementation of the activities outlined above will increase accountability, address the root problems of SIA quality and increase access and community engagement in the worst-performing areas. To make sure the programme remains on track in implementing these activities, at least two meetings per year of the Technical Advisory Group for Polio Eradication in Pakistan will be convened to assess progress and recommend corrective action to the government. The outcome should be increased campaign quality measured using LQAS, resulting in increased immunity in the KP and FATA populations and, ultimately, the interruption of endemic WPV transmission from Pakistan by the end of 2014.

## NIGERIA

“I wish to reaffirm Nigeria’s steadfast commitment to eradicate polio. We believe we must do it and we are progressing.”

PRESIDENT OF NIGERIA GOODLUCK JONATHAN, HIGH-LEVEL POLIO EVENT,  
UNITED NATIONS GENERAL ASSEMBLY, NEW YORK, 27 SEPTEMBER 2012

## Overview

1. Nigeria remains the only country in Africa yet to interrupt indigenous transmission of WPV. However, in the last four years, it has made remarkable progress in shifting the course of the disease from a recurrent cycle of large-scale, national outbreaks to more focal transmission in well-defined reservoirs in northern states. This positions the country to intensify and direct its resources to find and immunize unprotected children, while sustaining the gains made since 2008 in improving overall population immunity.

## Epidemiology

2. Nigeria reported the circulation of all three poliovirus serotypes in 2012: WPV1 and WPV3, as well as cVDPV type 2. Historic progress was achieved between 2009 and 2010 in restricting what was previously widespread national transmission to persistent transmission in localized sanctuaries in northern Nigeria, with a reduction in annual reported wild type cases from 388 to just 21. Despite notable increases in the total number of WPV cases reported since then – from 62 in 2011 to double that number in 2012 – transmission is now mostly focused in key reservoirs across northern Nigeria. In 2012, 97% of polio cases were located in just 100 of 9,555 wards in the country.

3. Additionally, from the beginning of 2011 through November 2012, the genetic diversity decreased for both WPV1 and WPV3 despite the increase in the number of cases. As reported by the CDC, the number of co-circulating clusters of WPV1 fell from eight in 2011 to four in the second half of 2012; for WPV3, four clusters were reduced to only one. The decreases

in genetic diversity likely correlate with the reductions in geographic spread: both types appear to be once again restricted to northern Nigeria. Kano state, in particular, plays a key role as a transmission hub for all serotypes and has reported more cases cumulatively than any other state since 2010. The northern states of Katsina, Kaduna, Borno, Sokoto, Jigawa and Zamfara have also been identified as localized sanctuaries for continued transmission over the last three years. WPV spread from these key reservoirs to four previously polio-free states in late 2012, underscoring the need to address transmission in these key reservoirs to preserve gains achieved over the last five years.

4. Despite these challenges, Nigeria is making progress. A Global Good analysis of the OPV status of children investigated for paralysis indicates that immunity levels needed to stop transmission are improving across the highest-risk northern states. In 2008, when Nigeria had its last large outbreak (798 cases), estimated population immunity was approximately 42%. By the end of 2012, the estimated fraction of the population immune to polio had climbed to 64%. This improvement in immunity is accompanied by the sharp decline in reported polio cases.

5. LQAS, which is now being used extensively in the programme as a measure of the quality of immunization campaigns, is also showing improvement. Between May and December 2012, the number of LGAs measured with LQAS that were accepted at >80% coverage nearly doubled from 35% to 69%.

### **Reasons for continued poliovirus transmission**

6. Children with polio in Nigeria are almost all from poor families; they live in rural, hard-to-reach settlements in border areas between LGAs or states, are not visited by vaccinator teams or have parents who refuse the vaccine. These border areas are also often in close proximity to major travel routes for nomadic herdsmen, whose children are chronically missed by the programme. GIS maps of northern Nigeria developed for the polio programme show that 80% of polio cases in 2012 were located on the border areas between LGAs and states. Such new tools are helping the Nigeria programme pinpoint its greatest challenges.

7. In built-up rural villages and urban areas, the performance of vaccinator teams is the key determinant of whether or not a child is immunized. Independent monitoring data suggest that the biggest cause of missed children – nearly 40% – is teams not seeking out all children (as of October 2012). Families who refuse to accept the vaccine are also a barrier to immunization. According to the same data, 18% of children were missed due to refusals. “Refusals” tend to be clustered, particularly in the urban areas of Katsina, Kaduna, Sokoto and Kano, where communities are influenced by clerics who claim the vaccine will create sterility or make people sick. Communities also refuse vaccination because their leaders say it is not a priority or because of demands for other services. In parts of the states of Borno and Yobe, insecurity remains a significant obstacle; a recent escalation of sporadic violence in Kaduna and Kano resulted in the death of polio workers.

### What's new? Strategies for success in Nigeria

8. The programme in Nigeria aims to achieve an SIA coverage target of 80% of children under the age of five across high-risk areas by the end of 2013 while maintaining other areas polio-free. The focus is to improve the quality of immunization activities in rural settlements and urban areas; reach children missed previously by the programme; and fast-track the response to the spread of virus in areas of the country that have been polio-free.

9. Several reinforcing thrusts in the Nigeria programme are driving change. First, an unprecedented level of political commitment to polio eradication is driving accountability and coordination at all levels. Second, the need to improve the quality of each polio campaign is strongly recognized so that fewer children are missed. Third, a new culture of innovation is allowing the programme in Nigeria to adapt global best practices. Fourth, Nigeria is making a significant effort to revitalize its immunization programme, including leveraging the massive polio effort in ways that help overcome some of the systemic and operational hurdles that are keeping vaccines from reaching children. Each of these was already present to some degree in the Nigeria programme – what has changed is the scale at which these inputs are now operating; the intensity of management and oversight by the federal and state governments; and the rigorous use of independently collected and managed data to validate performances in reaching children.

### Reaching chronically missed children in SIAs and routine immunization

10. **Improved SIA microplanning:** Campaign microplans have been updated by the LGA teams through intensive engagement supported by WHO at the local level. For example, in Nigeria this resulted in the identification of more than 3000 additional settlements in mid-2012 that were missed in previous planning exercises. Nigeria is also using some of the tactics pioneered in India's successful polio programme. Staff from that programme are providing regular input into the work in Nigeria, including a revision of the tools used for microplans. Nigeria also shifted to a house-based approach to its microplans so that teams are assigned specific households, rather than the general instruction to immunize within a village or urban neighbourhood.

11. **Better selected, trained, monitored and supported front-line workers:** Nigeria will continue to maximize the restructuring of vaccinator teams implemented in 2012 to ensure adequate supervision and oversight is maintained. Vaccination teams have been restructured from six-person to four-person teams, including a community leader. This improves the teams' mobility and makes the supervision and validation of work more effective. Concurrent monitoring has been used to observe team performance and ensure real-time corrective action; teams found not to have covered their assigned area well are pulled back immediately to perform their work again. Rigorous implementation of agreed-upon guidelines for selecting, training and monitoring vaccinators is now instigated in all areas. For example, traditional leaders through Ward Selection Committees are taking increased responsibility for the proper selection of vaccinators and recorders. As such, there has been an increase in female vaccinators and recorders in local areas and ward-level daily meetings have been instituted to increase team oversight and drive local accountability. The newly inaugurated emergency operations centres in high-risk states will work with local authorities to test and implement strategies for improving

team motivation and performance management, including vaccinator recognition/incentive programmes. The emergency operations centres have also developed a new, improved training package for vaccination teams that includes more hands-on practical exercises in the skills required of vaccination teams.

**12. Mobilized communities:** Full local ownership and participation in immunization services has always been a challenge in some communities of Nigeria. To address this issue and increase real demand for polio and other immunization antigens, a Volunteer Community Mobilizer Network was launched by UNICEF in early 2012, which has been expanded to target high-risk areas and add scale in 2013. This sensitizes mothers further in highest-risk settlements to the importance of polio eradication and immunization. In 2013, partnerships with religious groups and specific leaders, such as the Tsangaya (Koranic) School Strategy, traditional leaders, polio survivors and the Federation of Muslim Women's Associations in Nigeria (FOMWAN), will be expanded at the community level. This will be supplemented by an extensive visibility and mass media strategy, with entertainment-education at its centre. UNICEF will introduce and evaluate a new interpersonal communication skills kit to improve vaccinators' ability to engage effectively with community members, with special trainings to be initiated in 2013. It will also collect social data to understand the reasons behind missed children (particularly children absent from the home) and develop strategies to address these barriers. The systematic engagement of religious leaders is being intensified to increase public support for the programme and complement the steps that are being taken to address the anti-vaccine misinformation campaigns launched recently by some academics and clerics. Non-compliance and low demand for polio vaccination are affecting vaccination in urban centres in Kano, Kaduna, Katsina and Sokoto. Efforts to improve vaccine demand and uptake include a renewed focus on "pluses" that are in high demand, such as vitamin A, deworming tablets and routine vaccination.

**13. Monitoring and supervision leading to corrective action – data and local accountability:** In Nigeria, campaign dashboards showing critical LGA-level campaign preparedness and implementation indicators are being utilized to more effectively prepare and track campaign implementation, and the government has begun to delay campaigns deemed "not ready" to implement immunization activities. This is helping to drive local accountability for SIA quality.

**14. Focused interventions to reach previously missed children:** A landscape exercise led by the Nigeria STOP programme (NSTOP) was conducted in 2012 and 2013 to identify nomadic, scattered and border settlements that were not included in the campaign microplans. As a result of this activity, a special round was implemented in January 2013, focusing on nomadic, border and scattered settlements in selected wards. Special vaccination campaigns will be broadened, targeting wards to accelerate the interruption of WPV transmission in localized areas, including borders, nomadic routes and hard-to-reach scattered settlements. These activities will be conducted periodically as stand-alone, in-between round activities and embedded within scheduled SIA rounds. Nigeria will also use the SIAD strategy to rapidly build immunity in communities that have not been reached before, or for prolonged periods, including security-compromised areas. The programme has also developed key in-between round activities (local Immunization Days, Market Strategy, naming ceremonies, newborn strategy) to better reach missed children. Where access is a problem because of insecurity (in parts of Borno, Yobe, Kano), the programme will also test the use of permanent polio teams

who can take responsibility for ensuring the population in their defined catchment area is immunized over a specified period of time, rather than being bound by the campaign schedule. The programme will work closely with relevant agencies to assess security at the local level and will implement activities in a flexible manner in LGAs and wards where the security conditions permit implementation. The engagement of local stakeholders such as FOMWAN will be increased further to help overcome issues of mistrust and suspicion at the local level, especially where there is tension resulting from conflict and insecurity.

15. **GIS mapping:** Nigeria is making more extensive use of GIS mapping than any other country in the global polio programme. These maps are helping to improve settlement identification, resource allocation and microplanning, and also incorporate the mapping and engagement of nomadic populations. A pilot study took place in July 2012 in 10 LGAs in 7 states, which was expanded in August 2012 to 41 LGAs in 10 states. It found more than 8000 additional settlements not already included in microplans, 15% of which had never been visited by a vaccination team. Now all are in the microplan. The programme will continue intensive engagement with traditional rulers to identify and track the immunization of children at the settlement level.

### Routine immunization

16. The strengthening of immunization systems is urgently needed in Nigeria, and the polio programme understands it has a significant role to play. The GPEI partners (both polio and EPI) are working with other development partners to support the federal government in the development of a national immunization and accountability framework, which will include active participation in Interagency Coordinating Committee working groups to strengthen vaccine supply and management, monitoring and evaluation, training and social mobilization. Recently, the government and partners have developed a Harmonized National Immunization Plan as a first step towards the development of an integrated annual EPI activity plan that includes accelerated disease control activities (measles catch-up campaigns, yellow fever and meningitis vaccination campaigns) and the strengthening of routine immunization.

17. WHO, in particular, will substantially leverage its nationwide network of surveillance officers and the polio emergency surge personnel to monitor and generate evidence on vaccine availability, routine immunization programme implementation and disease surveillance. The CDC will focus on strengthening the capacity of the national government for data management and analysis. During 2013, WHO, UNICEF and CDC will support eight states to implement accelerated immunization outreach activities to address persistent transmission of cVDPVs. Additionally, WHO and UNICEF will collaborate with Kano state, the Dangote Foundation and the BMGF in a three-year effort to revitalize routine immunization from 2013. The focus will be on improving the tracking of vaccine supplies, supporting data management efforts, emphasizing training and monitoring immunization sessions, and intensifying social mobilization activities to increase the demand for immunization services.

### **Ensuring effective oversight and accountability**

18. Nigeria's political commitment to polio eradication is unprecedented. President Goodluck Jonathan leads the national effort through a Presidential Task Force and reviews progress quarterly. The Minister of State for Health chairs the Task Force, which includes federal legislators, state health commissioners, traditional leaders and GPEI partners. The Task Force has commissioned emergency operations centres in Abuja (established), Kano (established) and four other states to drive operational planning, monitoring and feedback, thus providing greater opportunity for programme coordination, monitoring and accountability.

19. A new "dashboard" is being used by the emergency operations centres to assess the readiness of the programme to implement each of its supplementary immunization campaigns. With a three-week countdown, states and LGAs need to report against a number of indicators to assess their preparedness: funds released, planning meetings held, ward team selection committee meetings taking place, microplans verified, social mobilization initiated, trainings conducted and logistics in place. The dashboard data are being used by the Task Force to hold state, LGA and the immunization staff accountable for the quality of the work. Poor preparedness is resulting in campaigns being suspended and administrative sanctions against government and partner staff. Although local state and LGA-level accountability is not yet fully optimized, it remains a major priority that is being pursued through the Task Force, emergency operations centres and rigorous review of dashboards and monitoring data.

20. The Presidential Task Force also tracks the political oversight provided by state Executive Governors and LGA chairmen through the Abuja Commitments, a declaration signed by the Executive Governors in 2009. The Abuja Commitments require the state's political leadership to oversee polio and immunization activities, ensure the release of state funds and involve the state's traditional leaders in the programme's planning and implementation. President Goodluck Jonathan personally intervenes when these commitments are not met. Pre- and intra-campaign advocacy field visits to the highest risk states and LGAs by Task Force members also provides feedback and motivational support to political leaders and technical teams at the operational level.

21. The BMGF instituted an Immunization Challenge in 2012 to reward those states that performed best in achieving key polio and routine immunization targets. In 2013, the Challenge will focus on rewarding those states that interrupt WPV transmission. Winning states receive a grant award for a public health priority identified by the state's Executive Governor.

### **Human resource surge support and enhanced technical assistance**

22. WHO will maintain support through 2018 for the 2500-strong human resource surge initiated in 2012, with ongoing efforts to improve surge personnel management and accountability processes. UNICEF has expanded its communications capacity in LGAs in the high-risk states. Over 1800 volunteer community mobilizers have been deployed to the highest risk settlements, with further expansion in 2013. The CDC will support greater data analysis capacity within the National Primary Healthcare Development Agency of Nigeria and through its NSTOP programme. The Nigeria programme will continue its technical exchange with India, including periodic deployment of Indian surveillance medical officers to high-risk areas in Nigeria.

### **Outcome**

23. Full implementation of the activities outlined above will increase accountability, address the root problems of SIA quality and increase community engagement in the worst-performing areas. To make sure the programme remains on track in implementing these activities, at least two meetings per year of the Expert Review Committee for Polio Eradication in Nigeria will be convened to assess progress and recommend corrective actions to the government. The outcome should be increased campaign quality measured using LQAS, resulting in increased immunity in the key northern-state populations and, ultimately, the interruption of endemic WPV transmission from Nigeria by the end of 2014.