

# **Report**

**9<sup>th</sup> Meeting of the Expert Review Committee (ERC)  
on Polio Eradication in Nigeria**

**Abuja, Nigeria  
14<sup>th</sup> -15<sup>th</sup> March 2006**

## Executive Summary

Since the 8<sup>th</sup> Meeting of the Expert Review Committee (ERC), major developments in the administration and oversight of the National Immunization Programme (NPI), combined with important developments in the epidemiology of polio at the national and international levels, has had substantial implications for accelerating the eradication of polio and strengthening of routine immunization services in Nigeria.

Nationally, a new *Blueprint for Strengthening Routine Immunization* has been established with broad support from the partner community and an interim NPI Chief Executive appointed with a Presidential Mandate to interrupt polio transmission by end-2006, improve routine immunization coverage, and oversee the re-integration of NPI into the Federal Ministry of Health.

Internationally, 2 of the last 6 remaining polio endemic countries have now interrupted wild poliovirus transmission and all but a handful of the recently re-infected countries are again polio-free. Furthermore, monovalent OPV has replaced the trivalent vaccine in an accelerated schedule of supplementary immunization activities (SIAs) in all of the other remaining polio-infected areas.

At the same time, programmatic and epidemiologic data demonstrate that the vast majority of Nigeria is also now polio-free; the number of states reporting confirmed polio has declined from 30 in 2004, to 21 in 2005 and just 10 between 1 December 2005 and 16 March 2006. During the corresponding period, the number of LGAs reporting cases has declined from 326, to 217 to 63. Of critical importance, ongoing polio virus transmission now correlates very strongly with poor quality routine and supplementary immunization services; since 1 December 2005, 92% of cases have been reported from 7 of the 8 states with >20% zero-dose children (by AFP data). In contrast just 6 cases have been reported from the remaining 29 states, all of which have much lower rates of zero dose children.

The ERC is most concerned about the low coverage rates in these 8 states due to 'non compliance' of households due to a number of factors, particularly inappropriate vaccinator teams and insufficient endorsement by local leaders.

Recognizing the time-limited Presidential Mandate under which NPI is now operating and the very focal nature of polio problem in Nigeria, the ERC is proposing a radical change in the approach to polio eradication and routine immunization during the coming 3 months to improve the attractiveness and acceptability of these services, as well as the authority under which they are implemented. This approach should be implemented from April-June 2006 and be evaluated by the ERC with NPI and the key State authorities in July, as the basis for refining activities for the remainder of 2006.

### ***Major Recommendations***

- 1) To rapidly strengthen routine immunization, NPI should promote the accelerated adoption of the 'Reaching Every Ward' approach, with all states establishing REW plans in their priority LGAs (less than 30% DPT3 coverage) by July 2006. The number of LGAs and wards with quality and status of implementation of REW plans by July should be reviewed by the ERC at that time.
- 2) NPI should establish with the states and LGAs, by July 2006, the capacity to track the number of immunization sites, sessions and stock-outs in all areas which are priorities for accelerated improvement of routine services.
- 3) ERC recommends that the NPI should engage the Nigerian National Forum of traditional rulers and religious leaders and the media to step up advocacy for routine immunization and the polio eradication initiative
- 4) The 10 highest risk states (i.e. with >20% zero dose children) should conduct 2 rounds of intensified 'Immunization-Plus Days' (IPD) in May and June 2006, with the target of reducing the zero-dose children to <10%. The IPDs should consist of 2 days of fixed site activity, through existing health facilities and supplementary sites in high traffic areas such as markets and transit points, followed by 3 days of house-to-house 'mop-up teams'.
- 5) Given the limited time for planning of these IPDs, the ERC recommends that key interventions included in May and June are (a) fixed sites: measles vaccine, mOPV1, DPT, vitamin A and, potentially, anti-helminthics, and (b) mop-up teams: mOPV1, vitamin A and, potentially, anti-helminthics.
- 6) The acceptability of the IPD should be improved by (a) ensuring that all vaccinators are of an appropriate age and stature in their community to deliver a health intervention, (b) publicly engaging key influencers especially those who had previously endorsed the suspension of OPV immunization.
- 7) In the 10 high risk states the IPDs should be improved through a strengthened partnership with traditional leaders who will have oversight responsibilities and accountability for reducing non-compliance and reducing missed children in particular reducing zero-dose, with corresponding remuneration.
- 8) Social mobilization and training activities should be rapidly adapted and oriented to the new 'Immunization-Plus Days' strategy for May and June rounds and guided by social and epidemiological data.
- 9) In the polio-free states, the detection of a wild poliovirus during this period should trigger two large-scale mop-up rounds using the appropriate monovalent OPV. Given the very tight supply of mOPV globally, NPI should take all necessary action to expedite the licensing of additional type 1 and type 3 mOPV products.
- 10) The ERC proposes to meet in Kano with NPI and appropriate representatives of key states on 12-13 July 2006 to review the experience and impact of

Immunization-Plus Days as a basis for finalizing Q3-4 2006 routine and supplementary immunization activities.

## 1. Introduction

The 9<sup>th</sup> meeting of the Expert Review Committee on Polio eradication in Nigeria was held in Abuja on the 15<sup>th</sup> and 16<sup>th</sup> March 2006.

The meeting was officially opened by Dr (Mrs) Edugie Abebe, Interim Chief Executive of the National Programme on Immunization (NPI) on behalf of the Honorable Minister of Health. She welcomed the ERC members, representatives of partner agencies and other participants to the meeting. She noted with appreciation the continuing support of partner agencies and critical guidance provided by the ERC.

Representatives of the various partner agencies (CDC, UNICEF, USAID, WHO and Rotary), while appreciating the progress made in the revitalization of routine immunization, polio eradication and accelerated measles control, noted that there is still a lot more to be done and pledged their full commitment and support. They each reaffirmed full commitment to supporting routine immunization and Polio eradication in Nigeria.

Professor Oyewale Tomori, ERC Chairman welcomed all participants to the meeting, calling on them to come up with recommendations required to meet the special needs of this critical stage of PEI in Nigeria.

This Report summarizes the main observations and recommendations of the 8<sup>th</sup> ERC meeting.

## 2. Implementation Status of 8<sup>th</sup> ERC Recommendations

Eight main recommendations addressing gaps in surveillance and laboratory, improving SIA quality, strengthening social mobilization, initiating the use of monovalent OPV and improving routine immunization activities, were made by the 8<sup>th</sup> ERC. The ERC while noting with appreciation the implementation of most of the recommendations, made the following observations on the following recommendations that have not been implemented:

- 1) Supplementary in-process and end-process monitoring of 40-50 children/community should be conducted outside homes (e.g. in the streets, market-places), in addition to the ongoing house-to-house monitoring.

- *The end process monitoring of 40 to 50 children outside the homes, in markets and streets should be carried out and report provided to the next ERC meeting.*

- 2). Analysis of data on orphan viruses, especially in those states with a low number of confirmed polio cases should be conducted regularly to assess potential surveillance gaps and guide corrective action including peer reviews.

- *WHO should work with NPI to carry out this assignment*

### 3. Status of Wild Poliovirus Transmission

Although 801 polio cases were reported in 2005 vs. 781 in 2004, important progress was made in 2005 as polio is now geographically concentrated with 90% of cases in just 8 states. Most importantly, programmatic and epidemiologic data demonstrate that the vast majority of Nigeria is now polio-free; the number of states reporting confirmed polio has declined from 30 in 2004, to 21 in 2005 and just 10 between 1 December 2005 and 16 March 2006. During the corresponding period, the number of LGAs reporting cases has declined from 326, to 217 to 63.

Of critical importance, ongoing polio now correlates very strongly with poor quality routine and supplementary immunization services; since 1 December 2005, 92% of cases have been reported from 7 of the 8 states with >20% zero-dose children (by AFP data): Jigawa (52% zero dose children), Kano (50% zero dose), Bauchi (47%), Katsina (46%), Borno (44%), Kaduna (40%), Zamfara (30%) and Yobe (22%). In contrast just 6 cases have been reported from the remaining 29 states, all of which have much lower rates of zero dose children.

Of the 801 children with confirmed wild poliovirus, 556 had wild poliovirus type 1 and 245 children had wild poliovirus type 3. The proportion of all polio cases due to WPV 3 dropped from approximately 50% during the period January-June 2005 to **10%** during the period since 1 December 2005.

The concentration of wild poliovirus in this limited number of states and LGAs, combined with the availability of monovalent OPVs and the current low poliovirus transmission seasons, provides an excellent opportunity to substantially reduce the burden of polio by mid-2006, setting the stage for then interrupting all transmission in the country. This will only be possible, however, if the proportion of zero-dose children (as monitored through non-polio AFP data) is reduced to <10% in the 6 highest risk states by mid-2006.

#### *Recommendation:*

- 1) Recognizing that just 6-8 states now hold the key to polio eradication in Nigeria, and the Presidential Mandate to stop polio by end-2006, the highest strategic priority of the programme must be to reduce the proportion of zero-dose children to <10% in these states by the end of the current low transmission season for enteroviruses (i.e. by end-June 2006 at latest).

### 4. Surveillance and Laboratory

The ERC would like to recognize the achievements of Nigeria for overall AFP surveillance quality. All 6 geo-political zones and states have achieved the targets for non-polio AFP rate (2.0 per 100,000 under 15 year olds) and stool adequacy rates (at least 80%) in 2004 and 2005.

Comparing 2004 to 2005, 94 versus 89% of LGAs achieved a non-polio AFP rate of at least 2 per 100,000 under 15 year old population. The proportion of LGAs that

achieved the stool adequacy rate of 80% also declined from 81% to 66% from 2005 to 2005. It should be noted that the % LGAs meeting both target indicators has declined from 81 to 60% from 2004 to 2005, respectively.

Field surveillance indicators indicated cases were being investigated and samples were reaching the laboratory within 72 hours, in good condition. For 2004-5 over 97% of cases were investigated within 48 hours of notification and > 99% of specimens arrived within 72 hours almost all in good condition.

Two major laboratory performance indicators i.e. availability of results within 28 days of receipt of specimen and NPENT isolation rate were consistently above the target for both Ibadan and Maiduguri Polio laboratories in 2004 and 2005. This data illustrates the importance of the seasonality of enterovirus circulation and therefore the importance of timing of the OPV rounds during the low season.

The surveillance training has improved the AFP detection rate after July 2005. The laboratories have maintained accreditation and should be recognized for their efforts. However, surveillance gaps exist and a breakdown of surveillance data by state would be helpful, as well as the analysis of orphan virus circulation.

*Recommendations:*

- 1) The ERC endorsed the proposed programme of work for further strengthening AFP surveillance quality.
- 2) The ERC recommends that indicators at the state and LGA level should be regularly evaluated at appropriate levels, with an analysis presented to the next ERC explaining the reasons for, and implications of, the apparent broad-based decline in the proportion of LGAs achieving both indicators.
- 3) The analysis of orphan virus circulation should be conducted on an ongoing basis to facilitate understanding of the epidemiology of polio in the country, evaluation of progress, and refining of future SIA strategy.

## **5. Supplemental Immunization Activity (SIAs)**

Important innovations have been introduced into the supplementary immunization activities of the Nigerian polio eradication effort since the 8<sup>th</sup> meeting. Most notable, monovalent OPV type 1 (mOPV1) has been used in selected states during the February and March NIDs to enhance the type-specific response and accelerate interruption of this serotype. However, as noted under the section 'Wild Poliovirus Transmission' the very high rates of zero-dose and missed children (>20%) in 10 states remains the only major barrier to interruption of wild poliovirus in this country. Preliminary data from monitors of the March 2005 SIA round suggests that this problem has not been rectified, requiring urgent action to improve the acceptability and attractiveness of SIAs in these areas.

### ***5.1 SIA Acceptability & Attractiveness in High Risk and High Burden Areas***

SIA monitoring data reviewed by the ERC, along with anecdotal reports from its Members, clearly demonstrates the need to enhance both the acceptability and attractiveness of SIAs in the high risk areas. The ERC is most concerned that the low coverage rates in these 8 states due to 'non compliance' of households due to a number of factors, particularly inappropriate vaccinator teams and insufficient endorsement by local leaders.

The ERC gave extensive discussion to potential strategies for rapidly enhancing the attractiveness and availability of this activity. The fundamental points the ERC noted in this regard were the needs to:

- fully implement previous ERC recommendations regarding the selection, training and oversight of vaccinators and vaccinator teams,
- rebrand the programme in a more attractive manner for these communities using a concept such as 'Immunization Plus Days',
- ensure routine immunization services are available throughout the period of the SIAs at appropriate health centers and other referral points,
- consider the addition of non-monetary health and/or non-health interventions or rewards as incentives for immunizing one's children (e.g. ITNs, raffles and/or other interventions as deemed locally appropriate),
- fully and systematically engage the full range of traditional leaders in this area and ensuring that they have the resources necessary to participate fully,
- ensure that key influencers who had previously promoted the suspension of OPV immunization are fully engaged in promoting the Immunization Plus Days.

The ERC was particularly concerned that the target states for IPDs completely review and revise the vaccinator selection process to ensure that the team is appropriately constituted in terms of the age, background and authority of vaccinators. Strategies for expanding the range of potential vaccinators could include engaging teachers, medical personnel, para-medical personnel and other potential groups for this purpose.

#### ***Recommendations:***

- 1) The 10 highest risk states (i.e. with >20% zero dose children) should conduct 2 rounds of intensified 'Immunization-Plus Days' (IPD) in May and June 2006, with the target of reducing the zero-dose children to <10%. The IPDs should consist of 2 days of fixed site activity, through existing health facilities and supplementary sites in high traffic areas such as markets and transit points, followed by 3 days of house-to-house 'mop-up teams'.
- 2) Given the limited time for planning of these IPDs, the ERC recommends that key interventions included in May and June are (a) fixed sites: measles vaccine, mOPV1, DPT, vitamin A and, potentially, anti-helminthics, and (b) mop-up teams: mOPV1, vitamin A and, potentially, anti-helminthics.

- 3) The acceptability of the 'Immunization Plus Days' should be improved by (a) ensuring that all vaccinators are of an appropriate age and stature in their community to deliver a health intervention, (b) publicly engaging those key influencers who had previously endorsed the suspension of OPV immunization.
- 4) In the 10 high risk states the IPDs should be improved through a strengthened partnership with traditional leaders who will have oversight responsibilities and accountability for reducing non-compliance and reducing missed children in particular reducing zero-dose, with corresponding remuneration.
- 5) Social mobilization and training activities should be rapidly adapted and oriented to the new 'Immunization-Plus Days' strategy for May and June.
- 6) To better gauge the quality of Immunization-Plus Days and guide improvements, NPI should monitor at the LGA level the (a) proportion of teams with age- and community-appropriate vaccinators, (b) engagement of local traditional leaders, (c) coverage in 'convenience samples' of 40-50 children in streets and market-places, (d) the number of house-to-house vaccination teams that are visited by a supervisor on each day of the activity.

## ***5.2 SIA Strategy***

Continued SIAs will be essential to achieving the goal of interrupting wild poliovirus transmission in Nigeria, as in all polio-infected areas. Given the evolving epidemiology of polio in Nigeria and the programmatic realities, however, the SIA strategy is being adapted as outlined above in section 5.1. While the current SIA plan laid out in the 8<sup>th</sup> ERC report is sufficient for planning and fundraising purposes, this must be reviewed and finalized during a July 2006 ERC meeting, based on the impact and success of the May and June Immunization Plus Days in reducing the number of zero-dose and missed children to less than 10%.

The Government of Nigeria should continue to plan on the use of type-specific monovalent oral poliovirus vaccines (mOPV1 and mOPV3) during supplementary immunization activities, with trivalent OPV continuing to be the vaccine of choice for routine services.

### ***Recommendations:***

- 1) The SIA plan outlined by in the 8<sup>th</sup> ERC report should continue to be the basis for planning and fundraising purposes, with finalization of the SIA schedule, number of rounds and extent of each activity decided in July 2006.
- 2) During the April-July period, the 10 high risk states should conduct 2 rounds of 'Immunization Plus Days' with mOPV1 as outlined in section 5.1 above.
- 3) In the polio-free states, the detection of a wild poliovirus during this period should trigger two large-scale mop-up rounds using the appropriate monovalent OPV.

- 4) Recognizing that mOPV3 will be required for at least some infected areas during 2006, and given the very tight supply of mOPV1 globally, NPI should take all necessary action to expedite the licensing of additional type 1 and type 3 mOPV products.

## 6. Cold Chain and Logistics Operations

The status of logistics activities have mainly focused towards improving performance in three areas – vaccine stores management and distribution, vaccine stock management, monitoring and reporting using a newly introduced tool and cold chain management system.

Sample data and analysis from initial use of the tool was presented for Lagos state and it was noted that the data was not complete. The tool however provides an opportunity for improved monitoring of key indicators such as wastage rates and stock outs and its use in all the states should be enhanced. From the initial data, the ERC expressed concern that the reported wastage rates from a number of antigens were unacceptably high.

From the WHO/UNICEF Effective Vaccine Stores Management (EVSM) assessment conducted in August 2003, areas that need strengthening have been prioritized for strengthening. Establishment of a stock management system for the national, zonal and state vaccine stores is in progress with the national vaccine stores being prepared for WHO certification by end of 2006.

Development of the 2006 to 2010 National Replacement plan is also in progress and will be ready by end March 2006. The plan will also provide guidelines on maintenance of cold chain equipment, an issue that has been identified as one of the weak points in the cold chain management system.

Ongoing activities include strengthening the use of the Routine Immunization reporting tool with emphasis on complete reporting on the cold chain and vaccine security aspects, preparation of the national vaccine store for certification by end of 2006, completion of the 2006 to 2010 cold chain replacement plan and completion of work on the 8<sup>th</sup> ERC recommendations. An assessment of vaccine distribution systems is also planned with a view to improving distribution to health facility levels.

### *Recommendations:*

- 1) Necessary activities should be undertaken by states and the Logistics Working Group to strengthen LGA and state level reporting on immunization supplies and vaccine security and to present to the next ERC analysis of stock outs and wastage rates.
- 2) The cold chain replacement plan that also addresses maintenance concerns should be completed and presented to the next ERC by the Logistics Working Group
- 3) The cold chain system and vaccine management capacity need substantial improvements. The National Programme on Immunization should urge LGAs and States to invest in the cold chain system within the context of the cold chain

rehabilitation plan while NPI and partners provide support for enhanced management. GAVI funds should be considered a potential source for support of this process.

## **7. Social Mobilization**

The ERC was briefed on the strategic shifts in the communication strategy which reflects recognition of the sold accomplishments in 29 Nigerian states and the more substantial challenges in the 6 to 8 states with highly virulent transmission. Strategic shifts for the high priority northern states include: settlement micro planning based on high risk analysis; greater focus on ward and community level participation; data analysis of missed children down to settlement level; and involvement of teachers, school authorities, and pupils. The communication strategy in polio-free states is to continue to engage the media and opinion leaders on PEI and underscore the value of RI.

The ERC noted several advocacy activities which included Advocacy Meeting with SSGs of 19 Northern Governors; Consultative Meeting with Religious Groups (JNI) ; launching of the National Immunization Committee of Friends (NICOF); NICOF working with Council of Imams in Shanono LGA, and the meeting of the Kano Governor's wife with the LGA Chairmen.

Challenges in the 6-8 high risk states remain the same which include pockets of missed children, persistent non-compliance, fatigue, fears of too many rounds, resistance for other reasons and low levels of inter-personal skills of vaccinators.

The social mobilization activities in 2006 will include rapid data analysis at LGA, Ward and settlement levels; strengthening microplanning, supervision and reporting mechanisms from the settlement to state and national levels and development of targeted, action oriented communication materials. This should reflect the focus on the new "Immunization-Plus Days" strategy for May and June which aim to improve the acceptability of polio campaigns and routine immunization services.

### *Recommendations*

1. Social mobilization and training activities should be rapidly adapted and oriented to the new 'PolioPlus Days' strategy for May and June and guided by social and epidemiological data
2. High-risk states should implement fully the strategies to improve community ownership, mass media presence and social network/ partnerships
3. Social mobilization should focus on community /settlement influencers rather than NC households
4. Develop partnerships with schools and other community institutions
5. Mapping of political, social and religious networks in high risk LGAs

6. Support the development of state advocacy plans to engage appropriate networks to complement community mobilization
7. Segment audiences in high risk states and develop appropriate IEC materials
8. Increase visibility of PEI campaigns through the local and international mass media
9. Gather data on underserved groups in high risk states, including knowledge, attitude, behavior and decision making patters

Report on the implementation of the social mobilization strategy (settlement microplanning, data analysis of NC household and missed children and involvement of teachers, schools) should be given in the next ERC meeting

## **8. Routine Immunization**

The status of routine immunization was presented alongside plans for intensification of routine immunization activities. The national DPT3 coverage for 2005 was 37.5, with three states (Ebonyi, Edo and Ogun) plus FCT reaching the 2005 DPT3 target of 65%.

The Reach Every District (RED) strategy is being adapted to the Reach Every Ward (REW) strategy with the aim of increasing routine immunization coverage to 80% DPT3 coverage in 80% of the LGAs by the year 2010 as outlined in the 2006 to 2010 national strategic plan.

A number of high level advocacy and consultative meetings have been conducted (Northern Governors Forum, Kano and Kaduna consultations) to promote programme ownership and to strengthen collaboration. Resolutions reached during these meetings include setting up of state committees to oversee immunization activities and delivery of immunization services in an integrated manner within the PHC system.

Intensification of activities for 2006 will include improving quality of fixed services, establishment of mobile and expansion of outreach services, local immunization days (LIDs), Child Health Weeks and integrated interventions (ITNs, Vit A, helminthics etc).

The ERC noted that with intensification of routine immunization activities, there will be need to keep in min

### *Recommendations:*

- 1) To rapidly strengthen routine immunization, NPI should promote the accelerated adoption of the 'Reaching Every Ward' approach, with all states establishing REW plans in their priority LGAs (less than 30% DPT3 coverage) by July 2006. The number of LGAs and wards with quality and status of implementation of REW plans by July should be reviewed by the ERC at that time.

- 2) NPI should establish with the states and LGAs, by July 2006, the capacity to track the number of immunization sites, sessions and stock-outs in all areas which are priorities for accelerated improvement of routine services.
- 3) The ERC recognizes the efforts being made by the National Programme on Immunization, to scale up immunization activities aimed at improving coverage. Alongside these efforts, clearly defined activities should be undertaken to empower states and LGAs to develop adequate numbers of immunization sites, schedule sufficient immunization sessions per site and to put in place mechanisms to ensure no supplies stock-outs occur at these sites
- 4) The NPI should further ensure that sufficient funds continue to be made available for procurement and distribution to states of bundled vaccines
- 5) From the strategic 5 year plan, the National Programme on Immunization should have comprehensive yearly plans to build up and sustain high immunization coverage

#### **9. Date of the 10<sup>th</sup> ERC Meeting**

The ERC proposes to meet in Kano with NPI and appropriate representatives of key states on 12-13 July 2006 to review the experience and impact of Immunization-Plus Days as a basis for finalizing Q3-4 2006 routine and supplementary immunization activities.