17th Meeting of the Expert Review Committee (ERC) On Polio Eradication & Routine Immunization in Nigeria

Ota, Ogun State, Nigeria

1 - 2 April 2009

Executive Summary

The ERC is very encouraged by the substantial advances that have been made in the polio eradication effort in Nigeria since the last meeting of the Committee in October 2008. Most striking, many of these advances were evident at the national, state and LGA levels and across a range of areas that included political support, traditional leader engagement, and quality of IPD operations.

In stark contrast to the situation at a number of previous meetings, the ERC noted that close attention had been given to the systematic implementation of the recommendations of the 16th ERC at the federal level and in most states.

The most striking, concrete evidence of the impact of this work is that in the 1st quarter of 2009, for the first time in the history of the programme, the proportion of 'zero-dose' children in nearly all states in the country was below 20%. Particularly important and laudable was the achievement of this milestone in Kano State.

The Committee highlighted, however, that Nigeria still has the highest burden of polio in the world. Although the wild poliovirus type 1 epidemic of 2008 is subsiding in the north of the country, there was an upsurge of type 3 cases in these states in the 1st quarter of 2009 and the type 2 circulating vaccine-derived poliovirus (cVDPV) continues, making this the only area in the world where children continue to be paralyzed by all three types of poliovirus. This situation is further complicated by the ongoing type 1 outbreaks in a number of southern states.

Overall, 80% of the polio cases detected to date globally in 2009 are either in Nigeria or caused by polioviruses of Nigerian origin, which are currently paralysing children in 11 other African countries. Of particular concern, by late 2008 Nigeria was the only country in the world which continued to export indigenous poliovirus to other countries, particularly in west Africa.

Despite these concerns, the Committee stresses that for the first time many Nigerian states are approaching the levels of IPD coverage needed to interrupt polio in this country. Recognizing the recent gains in IPD coverage, and strong political support the programme now enjoys in most states, the Committee urges the Federal Government to seize this opportunity to further consolidate national eradication achievements, through the following major recommendations:

Major Recommendations:

1. *Very High Priority States:* the states of Katsina, Kaduna and Sokoto all now have a higher proportion of 'zero-dose' children than Kano, and are increasingly important risks to the national eradication; they should be encouraged to improve their eradication efforts accordingly.

2. *State & LGA Task Forces:* given the evidence that the presence of active Task Forces at the state and LGA levels, constituted by the Governor and LGA Chairmen, is associated with rapid and marked improvements in IPD quality and a reduction in 'zero-dose' children, particular attention should be given to ensuring these are now established in every state and LGA, including middle belt and southern states, and their activities tracked using the standard indicators developed.

3. *IPD Schedule & Choice of Vaccine, 2009:* given the current momentum in the national and state-level polio eradication effort, the ERC recommends that the national tOPV IPD planned for May be followed by an mOPV1 sIPD in July, a tOPV sIPD in August, and an mOPV sIPD in October. The choice of vaccine for the October round, and the need for an additional sIPD in November or December, should be guided by the emerging epidemiology and immunity profile.

4. *Enhancing IPD Quality & Coverage*: innovations that were piloted in recent rounds should be scaled up to improve IPD quality nationally, particularly the systematic engagement of traditional leaders, the use of 'transit teams' to vaccinate children on public and private transport, and the use of 'street teams' to cover children in playgrounds and other areas outside the household. LGA Task Forces should support and promote the work of these teams.

5. *Community Mobilization*: while endorsing in general the findings of the recent communications review, the Committee urges that an appropriate balance be struck between enhancing the communications work to generate community demand, and the work to address 'non-compliance', noting that this latter factor continues to be cited as 40% of the reasons for a failure to vaccinate during IPDs in high risk states.

6. *National Financing*: the Committee urges the Federal Government to finalize and release its domestic funding for IPD operational costs, and complete the ongoing negotiations for a new buy-down for OPV, noting that these are essential for implementation of any activities from May of this year.

Introduction:

The 17th Expert Review Committee for Polio Eradication and Routine Immunization was convened from 1-2 April 2009 in Ogun State, nearly six months after the previous meeting in October 2008. The 16th ERC had taken place in the midst of a large scale outbreak of WPV1 in endemic states, that was spreading both within Nigeria and internationally (ultimately to Niger, Chad, Burkina Faso, Benin, Ghana, Mali, Togo, and Cote d'Ivoire), and the ERC at that time had sounded a clear warning that unless the quality of activities in Nigeria was improved, polio eradication in Africa and the whole world was at risk. Detailed recommendations were made aimed at placing polio eradication activities in Nigeria on a firm footing.

The context of the 17th meeting is much more hopeful as there are clear signs that for the first time in more than 2 years, polio eradication in Nigeria is beginning to regain momentum. The ERC members are acutely aware that providing clear recommendations for activities in the coming months will be crucial to sustaining that momentum and carrying eradication through to its conclusion.

The ERC was welcomed by the Executive Director of the NPHCDA, who reaffirmed the commitment of the Government of Nigeria to strengthen routine immunization and eradicate polio. The Executive Director posed key questions to the ERC:

- Would the quality of campaigns be improved if a mix of large scale (state wide) and targeted (LGA wide) campaigns were undertaken?
- Would quality of campaigns be improved if there was sufficient time for review and re-planning between rounds?
- What is the most ideal sequence by which different OPVs could be most optimally used in the second half of 2009 in order to achieve interruption of WPV1, WPV3, and cVDPVs?

The ERC was pleased to have representatives of infected states participate fully in the meeting. Representatives of partner agencies also attended.

This report summarizes the main findings, deliberations and recommendations of the 17th meeting of the ERC.

Report on the 16th ERC Recommendations:

The ERC noted the report on the status of implementation of the 16th ERC recommendations and appreciates the efforts of the national programme. Considerable energy has been displayed by the national programme and partners in trying to address recommendations. Significant progress has been achieved against recommendations in a number of areas, including reduction in zero dose children (details in the body of the report below), engagement of political and traditional leadership, and adoption of flexible strategies in IPDs. Less progress has been achieved in the phasing of IPDs, the implementation of LIDs, and the prioritization of high risk LGAs for activities to accelerate routine immunization. However, in general the ERC believes that the previous 6 months have seen a sustained effort to address programme shortcomings.

Current epidemiological situation:

As at 27 March a total of 803 WPV cases with onset in 2008 had been reported in Nigeria, 727 due to WPV1 and 76 due to WPV3, in twenty-six states. A total of 106 WPV cases have so far been reported in 2009, including 70 WPV3 and 36 WPV1, in twenty-four states, compared to 144 cases (126 WPV1 and 18 WPV3) in 19 states for the same period in 2008.

Over the last 6 months there have been three distinct epidemiological developments. First, the large scale outbreak of WPV1 in very high risk and high risk northern states has significantly declined, although five of these states have continued to report cases in early 2009. Second, the movement of WPV1 from endemic northern states to middle belt and southern states in 2008 has resulted in outbreaks in several of these states, most particularly in South-West Zone, and these outbreaks are ongoing in early 2009. Third, following a very low transmission year for WPV3 in 2008, a sharp rise in cases has occurred in very high risk and high risk northern states in early 2009.

Wild poliovirus type 1 in endemic (very high risk and high risk) states:

The 2008 outbreak of WPV1 that arose in endemic states had its major effect in those states; 622 of 727 WPV1 cases (86%) were reported from just 10 states. It is this extensive outbreak that gave rise to the spread of WPV1 to middle belt and southern states, and ultimately both west and east into neighbouring countries.

While the WPV1 outbreak has been extremely destructive, by the fourth quarter of 2008 it was beginning to come under control in the endemic states. The last quarter of 2008 and the first quarter of 2009 to date have seen a dramatic fall in cases; as at 31 March, only 5 WPV1 cases had been reported in 2009 by the 10 very high risk and high risk northern states, the lowest number on record for this period in these states since AFP surveillance began. The fall in cases follows the extensive use of mOPV1 in campaigns through the second half of 2008 and in early 2009, and improvements in campaign coverage, reflected in the reduction in the proportion of zero-dose children.

Wild poliovirus type 1 in middle belt and southern states:

The spread of WPV1 from endemic states into middle belt and southern states was noted in the October 2008 ERC meeting; that spread has resulted in sporadic cases and outbreaks of WPV1 in several states. In 2008 62 WPV1 cases were reported from middle belt and southern states, and in 2009 to date 31 cases. The worst affected states have been Oyo, which reported 12 cases in total (11 in 2008 and 1 in 2009) since the outbreak began, and Ogun which has reported 11 cases to date in 2009. Between mid-2008 and March 2009 the highest reported number of cases in non-endemic states was in January 2009.

In addition to using mOPV1 during the Integrated Measles Campaign in November/December, a mop-up round was held in some areas in February and a national IPD just completed in March using mOPV1. Case numbers in the non-endemic states have dropped in February compared to January, but it is too early to be confident that the worst of the outbreak is over, and the risk of further spread remains.

Wild poliovirus type 3:

After a very low transmission year in 2008, WPV3 transmission has increased particularly in northern states, but also in some middle belt states, in the first quarter of 2009, with 43 cases reported in January and 23 in February. At the previous ERC meeting an increase in transmission was anticipated and a national mOPV3 round recommended for the end of January 2009, which was carried out. The impact of this round may be reflected in the number of cases in February, which although high compared to 2008 is considerably less than January. The outbreaks of WPV3 in southern states in 2008 appear to have substantially resolved, with only one case occurring in southern states (in Oyo, onset February 2009) in the last 5 months.

Circulating VDPVs

Circulating cVDPV type 2 continues to be detected in northern states, particularly in known high risk LGAs, and there has been an upsurge in cases in early 2009, with 21 cases reported to date. This circulation continues to point to substantial immunity gaps in these areas. The ERC at its previous meeting had recommended the use of tOPV in nation-wide campaigns in 2009 to finally resolve the cVDPV issue; a national campaign using tOPV is planned for May. Fortunately, despite sporadic cases outside the high risk states, in middle belt and southern states and in the Republic of Niger, there has been no sustained transmission detected in these areas.

Conclusions and Recommendations

The ERC believes that the situation of polio eradication in Nigeria is more encouraging than it has been for several years. Many of the key recommendations made in previous meetings are being addressed and are showing results. **The ERC believes that significant momentum has been developed in polio eradication activities in Nigeria in the past 6 months in particular.** That momentum can be seen in the following areas:

- **A major increase in the visibility of political commitment and in the oversight provided by national, state, and local governments.** The personal engagement of HE the President, the First Lady, and the Vice President, and of State Governors (including the Governors of the highest risk states) has clearly resulted in a heightened Government oversight and commitment. This commitment has begun to trickle down; although there is still a long way to go with respect to the full engagement of Local Government Chairmen and local authorities, signs of progress are obvious.
- **The sustained engagement of traditional and religious leaders.** The involvement of traditional leaders has been pursued and will be strengthened through appropriate meetings in coming months.
- **The strengthening of the policy and planning framework.** The development of a multi-year strategic plan for immunization, the national immunization policy, and the national strategy for communication and social mobilization for immunization have been significant steps in developing the basic framework for immunization in Nigeria; additionally the Operations Group at national level has been revitalized.

- **The adaptation of strategies to reach more children with immunization during IPDs.** Better use of monitoring data and more flexible strategies are being followed to improve IPD quality.
- **The improvement of immunization status of children.** Ultimately the progress achieved is being reflected in the overall improvement in OPV immunization status of children. Nationally aggregated non-polio AFP case data shows that the proportion of children between 6 months and 5 years of age who have never received a dose of OPV has fallen from 15% in 2006 to 5% in the first quarter of 2009; in the 10 highest risk states over the same period, zero dose children have fallen from 36% to 8%. Dramatic progress has been made within the last 6-12 months; in those same 10 states, the proportion of children with 3 or more doses has risen from 50% to 63%. In Kano state, the proportion of zero dose children has fallen below 20% for the first time since AFP surveillance began, for two successive quarters. While there is still a very long way to go to achieve immunity levels adequate to stop WPV transmission, **the progress in reaching more children is undeniable**.

However the ERC is very conscious that in previous years, periods of significant progress have been followed by complacency, the loss of programme momentum, and consequent upsurges in WPV transmission; the outbreak in 2008 was a direct result of the failure to sustain progress in 2007. **The progress achieved in the past 6 months must be consolidated and increased through the end of 2009 and 2010 to ensure that polio eradication in Nigeria is completed.** The ERC warns strongly against any diminution of effort now; while understanding the pressures polio eradication places on national and state governments and partners, only the completion of eradication can bring the full benefit of all the efforts made to date. **The ERC considers that supplementary immunization activities remain the best way to rapidly increase population immunity and achieve the levels needed to interrupt WPV transmission within the near future; an aggressive SIA schedule must be maintained through 2009 and early 2010 to reap the full benefits of recent improvements in programme performance.**

Recommendations:

1. The ERC urges the Federal Government and State Governments to continue to take a very high profile on polio eradication, and to make it a national goal. No external body or group can eradicate polio from Nigeria; this can only be done by national institutions and communities.

2. The ERC emphasizes following strategic priorities for polio eradication in Nigeria for the coming months:
   - further improving the quality of supplementary immunization activities in the high risk endemic states with the objective of reducing the proportion of zero dose children to less than 5%, and to increase the proportion of children with 3 doses or more to at least 80%, in all states by the end of the third quarter 2009
   - prioritizing improving coverage in those states where reduction in zero dose children has failed to occur (Katsina, Kaduna, Sokoto)
   - continued priority on eradicating WPV1 as the most dangerous WPV type, with the objective of stopping all WPV1 transmission in Nigeria in 2009
   - interruption of transmission of all WPV (both type 1 and 3) in non-endemic middle belt and southern states by mid 2009

- appropriate use of monovalent and trivalent OPV to ensure that transmission of WPV1 can be stopped, while maintaining population immunity against WPV3, and stopping transmission of cVDPV2

3. The process of formation of State Task Forces under the auspices of the Governor should be completed in all states well before the May IPD round, and they should be fully empowered to oversee and monitor polio eradication activities to ensure that real actions are taken to improve quality.

4. The systematic engagement of the traditional and religious leadership in northern Nigeria should be continued to ensure the maximum engagement of community leaders during the IPD rounds through 2009; the planned national meeting of traditional and religious leaders should be held well prior to the May IPD round.

5. The Government should continue to maintain a rolling 12 month planning timeframe for the intensified effort that is needed to stop transmission of WPV.

Supplementary Immunization Activities (SIAs) Schedule

In developing recommendations for SIAs in the coming months, the ERC carefully considered the questions posed by the Executive Director NPHCDA at the beginning of the meeting. The recommended SIA schedule reflects the strategic priorities outlined above, and remains largely consistent with the recommendations made in the 16th ERC meeting in October 2008.

Recommendations:

6. The ERC recommends the following SIA schedule:

2009:
IPDs
- May: a national IPD round using tOPV (in endemic states the IPD should be conducted as early in May as possible)
- July: an sIPD using mOPV1
- August: an sIPD using tOPV
- October: an sIPD (in principle using mOPV3 but vaccine may be subject to change depending on epidemiology)

If transmission of WPV in the endemic states continues after July 2009:
- November: an sIPD using mOPV appropriate to the epidemiology.

Mop-ups
- Any WPV1 or WPV3 case in southern or middle belt states from April 2009, and any WPV1 case in endemic states from June 2009, should trigger an emergency mop-up response as per previous ERC recommendations and the May 2006 World Health Assembly Resolution.

2010
- For planning purposes, two national IPD rounds and up to 4 subnational IPD rounds should be planned for 2010, with the vaccine of choice dependent on the epidemiological situation.

7. As recommended previously, as a general principle IPD rounds should continue to be phased, with the very highest risk states covered separately to the others, to ensure that all available resources can be concentrated on these highest risk areas.

8. Any LGA in which cVDPV2 is detected should immediately carry out 2 rounds of LIDs using tOPV.

SIA quality

The ERC notes the evidence of improved quality in IPDs and the consequent reductions in the number of zero dose children; however, significant improvement in quality is still needed particularly in the key high burden endemic states, and this quality must be sustained in all subsequent rounds in order to achieve polio eradication.

Recommendations:

9. Building on the recent improvement in the quality of supplementary immunization activities in the high risk endemic states, the proportion of zero dose children should be reduced to less than 5%, and the proportion of children with 3 doses or more increased to at least 80%, in all states by the end of the third quarter 2009. Particular attention should be paid to Katsina, Kaduna, and Sokoto, which have not demonstrated the same recent progress as other key high risk states.

10. The process of forming State Task Forces should be completed in all states well prior to the May IPD round, and the STF empowered to oversee and monitor the quality of IPDs, including:
    - ensuring the formation of LGA Task Forces and the active engagement of the LGA Chairman and officials
    - defining criteria for selection of vaccinators and supervisors appropriate to the local circumstances, and ensuring that they are implemented in LGAs and wards
    - reviewing outside monitoring data and ensuring that action is taken to address weak areas
    - ensuring appropriate resource allocation at LGA level
    The activities of the STFs and Local Government Task Forces should be monitored using the standard indicators developed and a report presented to the next ERC meeting.

11. State Governors are urged to continue to convene meetings of LGA Chairmen of the identified very high and high risk LGAs immediately prior to each IPD round, to review past performance, identify problems, and decide on solutions. LGA Chairmen should chair daily review meetings during IPDs to ensure problems can be identified and addressed.

12. Out-of-house monitoring of IPDs should continue to be the principal tool for assessing the quality of SIAs. **As a standard response, in any ward where monitors find more than 10% missed children the activity should be repeated.**

13. The ERC endorses national programme plans to strengthen IPD quality including:
    - the use of independent supervisors in all high risk areas to improve team performance and data quality

- flexible team strategies in IPDs, in particular the expansion of teams covering children in transit, in schools, in markets, in playgrounds, etc.
Appropriate guidelines for the amended IPD team approach should be developed and disseminated as soon as possible. Experience with these strategies should be well documented and evaluated to inform decisions on future IPD operations.

Surveillance & Laboratory

Surveillance quality in general is good and the ERC considers that adequate information is available to inform programme decisions. The performance of the Maiduguri and Ibadan laboratories remains strong despite the high workload.

Recommendations:

14. The ERC endorses national programme plans to carry out local surveillance reviews in selected states in 2009 in order to maintain a high level of vigilance on surveillance quality.

15. Given the continued detection of orphan WPV, the quality of the reverse cold chain should be closely monitored and action taken to address problems wherever they are detected.

16. Given the recent spread of WPV to southern states, attention should be paid to monitoring surveillance quality in these states, in particular in those LGAs that do not meet surveillance indicators.

17. Laboratory workload and performance should continue to be monitored and adequate support provided to the national polio laboratories to ensure continued high quality and timely provision of results to guide programme decisions.

Social Mobilization and Communications for polio eradication

The ERC notes the work done in social mobilization and communications since the last meeting, including the completion of a national communications review in early 2009. The overall strategy focussing primarily on demand creation is appropriate and timely; however the ERC notes that specific efforts to better understand and address issues of non-compliance are still necessary in key high risk states.

Recommendations:

18. The ERC received the report of the recent communications review, and urges national authorities to review the recommendations, identify those that are key, and assign priorities for implementation. The development of an advocacy workplan for the coming 6 months should be considered a priority.

19. The process of deploying LGA consultants, with responsibility for all aspects of IPDs, including communication / social mobilization, should be completed for all high risk LGAs.

20. Operational research on the reasons why children are missed in IPDs should be completed. This should include assessing reasons for non-compliance in those states where it remains a significant problem.

Routine Immunization

The ERC notes some progress in improving data quality for routine immunization but again emphasizes that there is still a massive amount of work to be done to put routine immunization on a firm footing in Nigeria. It is frustrating that basic RI activities recommended in several previous meetings have not been carried out effectively. The ERC is forced to make the same recommendations again, and urges state and local governments to make the effort to deliver this basic service.

Recommendations:

21. Very high risk LGAs should be prioritized for activities to strengthen routine EPI, as these areas have the largest immunity gaps and the lowest immunization coverage for all antigens.

22. Between IPD rounds in the very high and high risk states, activities to accelerate the routine immunization programme should be carried out particularly in very high risk LGAs.

23. In those states carrying out a limited number of IPDs there is no excuse for failure to improve routine immunization services. In the second half of 2009, all non-endemic states should concentrate on achieving and maintaining routine immunization coverage of over 80% in all LGAs.

24. A comprehensive progress report should be presented at the next ERC meeting on the status of REW implementation at LGA level, in particular evidence of impact on session frequency and immunization coverage.

Measles Control

The ERC received a report on the integrated follow-up measles campaign in 2008, and noted that surveillance data indicates a significant reduction in measles cases in the first quarter of 2009 compared to 2008, subsequent to the campaign. The ERC has no doubt that the campaign will have a significant impact on reducing child morbidity and mortality.

Recommendations:

25. The national programme should continue to closely monitor the situation of measles transmission; a progress report on measles control should be presented at the next ERC meeting.

Next ERC Meeting

The ERC proposes that its next meeting should be scheduled for August 2009.