16th Meeting of the Expert Review Committee (ERC)
On Polio Eradication & Routine Immunization in Nigeria

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Executive Summary

The 16th ERC was convened at a short interval after the 15th meeting, in particular to review progress in controlling the major outbreak of wild poliovirus type 1 in Nigeria. This ongoing outbreak of WPV1, the most transmissible and dangerous of the wild poliovirus serotypes, still constitutes the most critical risk for polio eradication in Nigeria, in Africa, and in the whole world. Although WPV1 is causing havoc mainly in the endemic states, it has also spread into non-endemic states and internationally; in 2008 WPV1 from Nigeria has been reported in Niger, Burkina Faso, Benin, and most recently Ghana. International concern over the outbreak remains very high.

Just six endemic northern states (Kano, Zamfara, Katsina, Kaduna, Bauchi, and Jigawa) account for nearly 80% of the 682 WPV1 cases reported as of 27 October 2008. **Kano alone has reported more than one-third of all the polio in Nigeria.** These states all have major immunity gaps; all have more than 10% of children less than five years of age who have never received a dose of OPV (more than 30% in Kano), and at least half of all children in this age group are inadequately immunized. As the ERC has repeatedly emphasized, **the ongoing transmission of WPV in endemic states in Nigeria is a result of the consistent failure to reach and immunize children in these states.** This situation has been due to a combination of factors but in particular to inadequate engagement and accountability of state and local governments, and the failure of local governments to effectively engage local leaders and communities.

A number of measures have been initiated over the last four months by the Government of Nigeria and governments of the affected states, including the establishment of the national Task Force on Polio Eradication and Routine Immunization (formed immediately prior to the July meeting of the ERC), the establishment of state-level Task Forces or Interagency Coordinating Committees in several endemic states, and most recently the appointment of a new Executive Director of the National Primary Health Care Development Agency. These measures are new and in many respects have not yet had enough time to generate their maximum impact. There are encouraging signs that in those states where the ownership and engagement of state and local governments has improved, more children are being immunized and polio cases are going down, good examples being Kebbi and Jigawa. Other endemic states where there are early signs of improvement include Bauchi and Borno. **It is of the greatest importance that ERC recommendations on improving local government ownership and accountability are fully implemented, in order to assure these kinds of improvement in all states. The growing national and state level political commitment to polio eradication and immunization must be taken down to local government and community level.**

Major ERC Recommendations:

1. *Engagement of national leadership*: the ERC strongly emphasizes the critical importance of the engagement of national, state, and community leadership for polio eradication and immunization. The Presidential Initiative on Immunization and Child Survival in Nigeria provides an opportunity to make immunization a national priority and this must be vigorously pursued.

2. *Engagement of community leaders:* The Forum of Traditional and Religious Leaders should be re-invigorated and convened as soon as possible to ensure maximum engagement of community leaders during the IPD rounds in early 2009.

3. *Strategic priorities*: The ERC identifies the following strategic priorities for polio eradication in Nigeria for the coming months:
   - significant improvement in quality of supplementary immunization activities in the high risk endemic states, in particular Kano, Katsina, Sokoto, Zamfara, Kaduna, and Bauchi, with the objective of reducing the proportion of zero dose children to less than 10% in all states by the end of the first quarter 2009
   - continued priority on eradicating WPV1 as the most dangerous WPV type, with the objective of stopping all WPV1 transmission in Nigeria by mid 2009
   - interruption of transmission of all WPV (both type 1 and 3) in non-endemic middle belt and southern states by the end of the first quarter of 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 cVDPV transmission

4. *State and LGA level ownership*: State Governors are again urged to meet LGA Chairmen of very high and high risk LGAs immediately prior to each IPD round, to review past performance, identify problems, and decide on solutions, and to use State Task Forces to hold Local Governments accountable for performance.

5. *State Task Forces*: Any endemic or high risk state which has not yet established a state level ICC or Task Force for Polio Eradication under the auspices of the Governor should immediately do so, to ensure that measures to improve the quality and coverage of IPDs are effectively implemented.

6. *Reaching children with immunization*: The ERC reaffirms previous recommendations that the highest burden endemic states (Kano, Katsina, Sokoto, Zamfara, Bauchi, Kaduna) must reduce the proportion of zero-dose children to less than 10% by the end of the first quarter of 2009.

7. *IPD Schedule & Vaccines:* Following the IMC campaigns covering northern states in late November and southern states in December, the ERC recommends the following SIA schedule:

   2008:
   - December: an sIPD round in key LGAs of high burden states using mOPV1

   2009:
   - January: a national IPD round using mOPV3
   - February: a sub-national IPD in endemic states using mOPV1
   - March: a national IPD round using tOPV
   - May: a national IPD round using tOPV
   - June-December: Up to 4 sIPDs using a mix of tOPV and mOPVs appropriate to the epidemiology.

Introduction:

The 16th Expert Review Committee for Polio Eradication and Routine Immunization was convened from 27 - 28 October in Abuja, at a short interval from the previous meeting in July 2008, due to the ongoing major outbreak of wild poliovirus type 1 (WPV1) in northern states, and the threat this poses to polio eradication in Nigeria and the world. Nigeria continues to report nearly 90% of all the type one poliovirus in the world and in 2008 WPV1 has spread from endemic states to previously polio-free states, and to five neighbouring countries in west and central Africa.

The ERC was welcomed by the Acting Executive Director of the NPHCDA, and subsequently by the Chairman of the national Task Force on Polio Eradication and Routine Immunization, who both reaffirmed the commitment of the Government of Nigeria to strengthen routine immunization and eradicate polio, and who then participated in the full deliberations of the ERC. 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 16th meeting of the ERC.

Report on the 15th ERC Recommendations:

The ERC noted the report on the status of implementation of the 15th ERC recommendations and appreciates the efforts of the national programme.

Of the recommendations made in July, while many are reported to have been achieved, some key recommendations were not implemented or were only partly implemented. These include recommendations on improving SIA quality in very high risk LGAs, conducting routine immunization activities between IPD rounds, and carrying out LIDs in cVDPV infected LGAs. The programme has still not acted on recommendations to systematically evaluate add-ons for IPDs, and other tactical innovations intended to improve IPD coverage. The ERC emphasizes that these recommendations are critical to closing quality gaps and ensuring children are immunized, and must be implemented if Nigeria is to eradicate polio.

Current epidemiological situation:

As at 27 October a total of 740 WPV cases with onset in 2008 had been reported in Nigeria, 682 due to WPV1 and 58 due to WPV3. Twenty-four states have reported cases. Transmission outside the northern endemic states has resulted in numbers of sporadic cases and small outbreaks of both WPV3 and WPV1 in non-endemic middle-belt and southern states. Overall, the epidemiology of WPV1 and WPV3 has been markedly different in 2008. Transmission of WPV1, well known to be the most transmissible and dangerous of the wild poliovirus serotypes, has continued to dominate the epidemiological situation, in a sustained extensive outbreak affecting primarily the endemic states in the north of the country.

Wild poliovirus type 1:

The 2008 outbreak of WPV1 arose in endemic states and continues to primarily affect these states. Although 23 states have reported WPV1 in 2008, just six endemic northern states (Kano, Zamfara, Katsina, Kaduna, Bauchi, and Jigawa) account for nearly 80% of the 682 cases reported to date. Kano alone has reported 259 WPV1, 38% of the national WPV1 total. In the infected states some Local Government Areas (LGAs) have been much more affected than others. Nearly two thirds of all WPV1 cases have occurred in just 62 of the 211 infected LGAs; some LGAs have reported more than 10 cases, which given the relatively small population at LGA level indicates very extensive local spread of WPV1. As pointed out by the ERC in the July meeting, **this intensive spread is due to the very large numbers of non-immune children in many LGAs in endemic states.**

Although WPV1 is causing havoc mainly in the endemic states, it has also spread into non-endemic states and internationally, as the ERC warned was likely in the February and July meetings. Sporadic transmission has been a particular problem in middle belt states, where in addition to isolated cases in several states, multi-case WPV1 outbreaks have occurred in Plateau and Niger. In the south of the country previously polio-free states have been re-infected, and Oyo suffered an outbreak of 11 WPV1 cases, on top of the WPV3 outbreak affecting the state since late 2007. Additionally, in 2008 WPV1 genetically linked to Nigeria has been reported in Niger, Chad, Burkina Faso, Benin, and most recently Ghana.

The weekly incidence of WPV1 at last appears to be declining, although the marked reduction in July was reversed in August, giving clear warning that complacency is not warranted. There is not yet clear evidence of a large scale improvement in immunization coverage across endemic states, and the potential for continued extensive WPV1 transmission remains high.

Wild poliovirus type 3:

WPV3 cases have remained consistently low in 2008, following the February national IPD round using mOPV3. Only 58 cases due to WPV3 with onset in 2008 have so far been reported, the lowest total for xx years. The outbreak in the southern states of Oyo and Ogun has slowed considerably, with only one case reported since March. However, clusters of cases have occurred in Plateau in the middle belt, and in the endemic northern states of Bauchi, Yobe, and Katsina.

The ERC expects that WPV3 transmission will likely stay relatively low for the coming quarter, but will gradually rise thereafter until SIAs are conducted with a type-3 containing vaccine.

Circulating VDPVs

Circulating cVDPVs continue to be detected in northern states, in LGAs of poor performance and very low immunization coverage. Two-thirds of LGAs infected with cVDPVs in 2008 also report wild poliovirus, indicating very weak immunization activities and high numbers of un-immunized children.

Conclusions and Recommendations

As the ERC has repeatedly emphasized, **the ongoing transmission of WPV in endemic states in Nigeria is a result of the consistent failure to reach and immunize children in these states.** The ERC has previously noted that this situation has been due to a combination of factors but in particular to inadequate engagement and accountability of state and local governments, and the failure of these local governments to effectively engage local leaders and communities.

The ERC has in several previous meetings made very specific recommendations on the need for State Governors to engage Local Government Chairmen and to hold them accountable for performance in their areas, and the need for government at all levels to effectively engage community leaders. The ERC acknowledges the significant recent activity to engage government and community leadership in several endemic states, and understands that this activity may not yet have had time to show an impact, **but these efforts must be sustained and should be the primary focus of the national and state governments and the partners in Nigeria.**

There are very encouraging signs that in those states where the ownership and engagement of state and local governments has improved, where state task forces or ICCs have improved coordination between government departments and partner agencies, and where community leaders have become more involved, **more children are being immunized and polio cases are going down.** The ERC, in the report of the 15th meeting in July, already raised the example of Kebbi which has sustained a low rate of polio and a high rate of immunization coverage of children under 5 years throughout 2008, despite the major polio outbreak raging in neighbouring states. Perhaps even more significantly, the highly endemic state of Jigawa shows clear evidence of improving immunization coverage which is reflected in increasing control over WPV transmission; Jigawa has reported just 3 cases of WPV1 in the last 3 months, a dramatic turnaround from the 35 cases reported in the first half of the year. Other states where there are early signs of improvement include Bauchi and Borno. The measures being undertaken in several other states may be too recent to be showing results, **but it is extremely encouraging to the ERC that where serious efforts are being made by state and local governments to assume responsibility for polio eradication, there is clear evidence of improvement.**

Nonetheless the ERC warns that there are still many states with completely unacceptable levels of immunization coverage of children. **According to current non-polio AFP data, in 2008 there are still six endemic states (Kano, Katsina, Sokoto, Kaduna, Bauchi, and Zamfara) with more than 10% of children less than 5 years of age who have never received a dose of OPV, despite the multiple IPD rounds carried out over recent years.** In these states, 50% to 60% of children, on average, have received less than 3 doses. Kano in particular is not showing signs of improving coverage of children; quarter by quarter, data demonstrates that nearly one-third of children remain completely unimmunized.

The ERC urges the Federal Government and State Governments to continue to take a very high profile on polio eradication. No external body or group can eradicate polio from Nigeria; this can only be done by national institutions and communities. **The ERC urges the Federal Government to continue to work to translate the commitment at federal level to the states, LGAs, and communities, so that polio eradication becomes a truly national goal.**

Recommendations:

1. The ERC emphasizes following strategic priorities for polio eradication in Nigeria for the coming months:
   - significant improvement in quality of supplementary immunization activities in the high risk endemic states, in particular Kano, Katsina, Sokoto, Zamfara, Kaduna, and Bauchi, with the objective of reducing the proportion of zero dose children to less than 10% in all states by the end of the first quarter 2009
   - continued priority on eradicating WPV1 as the most dangerous WPV type, with the objective of stopping all WPV1 transmission in Nigeria by mid 2009
   - interruption of transmission of all WPV (both type 1 and 3) in non-endemic middle belt and southern states by the end of the first quarter of 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 cVDPV transmission

2. In all endemic states that have not yet done so, a Task Force for Polio Eradication should be established, under the auspices of the Governor, to ensure that real actions are taken to improve IPD quality and coverage.

3. A systematic, ongoing engagement of the traditional leadership in northern Nigeria should be pursued. The Forum of Traditional and Religious Leaders should be re-invigorated and convened as soon as possible to allow for the maximum engagement of community leaders during the IPD rounds in early 2009.

4. 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

The recommended SIA schedule is intended to reflect the strategic priorities outlined above. Although slightly modified from the recommendations made in the 15th ERC meeting in July 2008, they remain largely consistent with previous recommendations.

Recommendations:

5. Following the IMC campaigns covering northern states in late November and southern states in December, the ERC recommends the following SIA schedule:

   2008:
   - December: an sIPD round in key LGAs of high burden states using mOPV1

   2009:
   - January: a national IPD round using mOPV3
   - February: a sub-national IPD round in high risk states using mOPV1
   - March: a national IPD round using tOPV
   - May: a national IPD round using tOPV
   - June-December: Up to 4 sIPDs using a mix of tOPV and mOPVs appropriate to the epidemiology.

The 3 national rounds recommended in the first quarter of 2009 are intended to maintain high population immunity against WPV3, to continue to sustain pressure on WPV1 transmission, and to stop cVDPV transmission. *In principle, after these rounds the focus of all sIPDs in 2009 should be on the remaining endemic states.*

Decisions on the final extent, timing, and type of vaccines for sIPDs in the second half of 2009 should be made at a later ERC meeting, based on epidemiological developments.

6. 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.

7. Between the IPD rounds activities to accelerate the routine immunization programme, such as REW and LIDs, should be carried out particularly in very high risk LGAs. Following the national rounds in the first quarter of 2009, all non-endemic states should concentrate on achieving and maintaining high routine immunization coverage.

8. Following the three national rounds in early 2009, any detection of WPV in any non-endemic state should trigger an emergency outbreak response as per previous ERC recommendations and the May 2006 World Health Assembly Resolution.

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

SIA quality

The ERC continues to emphasize that a dramatic improvement in quality is needed in key high burden endemic states, if the proportion of zero dose children is to be reduced to below 10% in all states by the end of the first quarter of 2009.

IPD administrative coverage and monitoring data from some high burden endemic states encourages complacency as it shows increasing numbers of children reached and reducing percentages of missed children. This is not consistent with epidemiological data in the form of WPV cases. The ERC again notes that data from monitoring outside houses, based on finger marking of children, appears to be the most valuable. The data on immunization status of non-polio AFP cases correlates extremely well with the epidemiology of WPV and should be used to determine longer term trends in immunization coverage.

Recommendations:

10. The ERC reaffirms previous recommendations that the highest burden endemic states (Kano, Katsina, Zamfara, Bauchi, Kaduna) must reduce the proportion of zero-dose children to less than 10% by the end of the first quarter of 2009.

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, and to use State Task Forces to hold Local Governments accountable for performance.

12. In any state which has not yet done so, State Task Forces should define criteria for selection of vaccinators and supervisors appropriate to the local circumstances. State officials should ensure that these criteria for selection are implemented at LGA and ward level.

13. Out-of-house monitoring of IPDs should be implemented systematically by well trained and supervised field monitors, and should become the principal tool for assessing the quality of SIAs.

14. To ensure the best possible coverage of children, flexible strategies using mobile teams/fixed sites should continue to be explored in very high risk and high risk LGAs to improve engagement with communities and community leaders, and access to immunization. Experience with these strategies should be well documented and evaluated to inform decisions on IPD operations.

15. The use of affordable and appropriate add-ons during IPDs should continue to be systematically planned, and carefully evaluated, to ensure the maximum benefit in attracting parents to bring children to immunization teams.

Surveillance & Laboratory

Surveillance quality in general remains high. The performance of the Maidaguri and Ibadan laboratories has been good in 2008 despite the high workload.

Recommendations:

16. The programme should continue to carry out local surveillance reviews in selected areas to maintain a high level of vigilance on surveillance quality.

17. Adequate support should be 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

While noting the considerable work being done in social mobilization and communications, the ERC believes that a great deal of work still needs to be done to engage communities, as well as traditional and religious leaders, and that social mobilization and communications activities must be driven by data and appropriately evaluated.

Recommendations:

18. The highest risk LGAs, with guidance from state teams, should use data on missed children (location, number, reasons for non-compliance) to regularly update micro-plans in a way that prioritizes activities to reach the maximum number of missed children. Planned operational research on risk factors for missed children should be completed and used to improve coverage during IPDs.

19. In order to ensure communication support is provided at the scale appropriate to stop transmission, all very high risk states and LGAs require adequate human resources for planning, implementing and monitoring of social mobilization activities. LGA consultants, with responsibility for all aspects of iPDs, including communication / social mobilization, should be recruited under a single set of Terms of Reference, agreed by all partners, for the highest risk LGAs.

20. State and LGA level advocacy plans should include civic partners and influencers as well as political, religious and traditional leaders, and define specific outcomes for people and organizations that increase ownership and accountability and address community and household level issues that lead to missed children.

21. Advocacy activities should be monitored and followed up to ensure that promised actions are performed, and advocacy activities must be evaluated to assess the impact on improving operations or communication outcomes.

Routine Immunization

The ERC believes that routine immunization is a basic measure of the effectiveness of government in providing basic services to communities. The poor status of immunization services in Nigeria should be considered as a national embarrassment by political and government leaders at all levels. There is still a massive amount of work to be done to put routine immunization on a firm footing in Nigeria.

Recommendations:

22. 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.

23. The ERC would like to continue to receive progress reports on the status of REW implementation at LGA level in the very high risk LGAs, in particular evidence of impact on session frequency and coverage.

Measles Control

The ERC received a report on the status of preparation for the integrated follow-up measles campaign in 2008, including other child survival interventions, and mOPV1.

Recommendations:

24. A report on the IMC round should be presented to the 17th meeting of the ERC.

Next ERC Meeting

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