Reviewer's report

Title: The global switch from trivalent oral polio vaccine (tOPV) to bivalent oral polio vaccine (bOPV): Facts, Experiences and Lessons Learned from the south-south zone; Nigeria, April 2016

Version: 0 Date: 29 Nov 2016

Reviewer: Radboud Duintjer Tebbens

Reviewer's report:

General comment
1. This is an informative report on the implementation of the switch from tOPV to bOPV in Nigeria's south-south zone. The findings related to remaining tOPV in the supply chain are important to assess and manage the resulting risks, and the lessons learned relevant to future planning for bOPV cessation. This review highlights some areas for improvement of the manuscript.

Major comments
2. Setting the context: The rationale for the synchronized tOPV to bOPV switch needs better explanation, including why it's so important to carry out the switch within a short period of time and ensure the complete withdrawal of tOPV. The manuscript also does not mention at all the future bOPV cessation, although much of the value of this study comes from applying the lessons learned when Nigeria will (hopefully) do this again in a few years for the remaining two OPV serotypes.

3. Updates and factual inaccuracies: Many statements need updating since other parts of Nigeria detected both WPV1 and cVDPV2 in 2016. There also is a major global IPV supply shortage that has disrupted IPV supply in many countries and may have played a role in Nigeria's south-south zone IPV shortages as well. The statement (page 3, line 15) that the serotype 2 component causes the most VAPP needs a citation, especially since it is inconsistent with US VAPP data. The use of a single IPV dose co-administered with the third OPV dose in routine immunization does not sustain high immunity (page 2, lines 52-57) for type 2 disease if coverage with the third dose is low, as in many parts of Nigeria, and likely has very little impact on cVDPV2 transmission, which is still ongoing. We do not know if WPV2 was interrupted in 1999, only that the last known case occurred during that year (page 3, line 12).

4. Language editing: the manuscript would benefit from careful language editing, particularly as it relates to use of articles (e.g., page 3, line 18, "emergence of the vaccine-derived polioviruses", delete "the"). Some abbreviations are not defined upon first occurrence (e.g., tOPV) and some capitalization is non-standard (e.g., change to Global Polio Eradication Initiative (p. 3), national level (p. 5)).

Minor comments
4. Table 3, for consistency, please add "(%)" at the end of the headers for columns 2 and 3 and add the actual percentages for each state.
5. Page 3, lines 3-4: the numbers reflect polio(myelitis) cases due to wild poliovirus, not "poliovirus cases"
6. Page 3, line 26: "600 people were affected with the type 2 component of the OPV" is not accurate, I think you mean that 600 polio(myelitis) cases associated with cVDPV2 occurred.
7. Page 3, line 61: suggest "certification" instead of "eradication" since WPV3 may already be eradicated but clearly isn't certified to be eradicated yet.
8. Page 5, line 10: delete "proper"; same line, please briefly explain here what the sweep process since this is where you introduce the concept.
9. Page 5, line 39: did the training explain why it was important not only to due the switch, but to ensure the importance of timeliness and completeness?
11. Page 6, line 4: please either provide a source for the Vaccine Management Tool, or change to "A vaccine management tool".
12. Page 7 shows a series of blank lines instead of the "Results" header one
would expect here. 13. Page 10, line 4: Are you suggesting that the shortages affect polio herd immunity or herd immunity for other diseases as well? 14. Page 10, lines 43-44 and 52-53 and page 11, lines 1-2: please consider bolding these statements or making them into subheaders as they are not really sentences. 15. Page 10, line 49: constraint instead of "constrait" 16. Page 10, line 55: Anecdotal evidence instead of "Data consisting of anecdotes" 17. Page 11, line 53: please delete semi-colon 18. Pages 1 and 12-13: why are these highlighted?

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Unable to assess

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

**Quality of written English**
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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