

ESPS manuscript NO: 24125

Title: Assessment of Enhanced Tracking of Rejected Dried Blood Spot Samples and its Impact on the Prevention of Mother-to-Child Transmission of HIV/AIDS Cascade.

We would like to express our gratitude to the three reviewers for the constructive feedback provided. In response to their criticisms, we have produced a substantially improved quality of the manuscript. We have addressed the comments point by point below:

Reviewer #1: The data may be useful for clinical researchers
We thank the reviewer for pointing this.

Reviewer #2:

This work by Inalegwu A. et al., addresses an important problem of enhanced tracking of rejected dried blood spot samples, that dramatically affects the prevention of mother-to-child transmission of HIV. The paper is well written, and the data are convincing since they are analyzed with appropriate statistical tools.

My critical remarks predominantly concern minor points:

1. Table 1 and 2 should be erased. The findings from Table 1 and 2 can be discussed in the Results section. Authors should note that most of the findings from Table 2 are also provided in Table 3.

Response to reviewers' #2: We agree with this and have amended the results section. In response to this comment and the notion that other readers could be similarly confused, we removed Table 1 and Table 2 from the revised submission.

2. The Discussion section is too long and should be shortened and better focused on data presented to maximize reading comprehension and retention.

3. References can be limited in number, avoiding redundancies

Response to reviewers' #2: We have cut down the discussion section by 25% (see tracked changes). At the editor's discretion we could maintain references to address issues more fully.

Reviewer # 3:

1. Line 32- define EID when first mentioned in the abstract.

Response: This has now been done

2. Line 46 – no need to specify twice what MTCT is, as it was done in line 44.

Response: This has now been deleted

3. Line 52 – add space before [14].

Response: This has now been deleted

4. Line 53 – what is the national target? Please specify.

Response: This low level of reach falls below the national target estimated 52,125 to 104,250. infants are at risk of being HIV positive without intervention [15].

5. Line 61 – define LTFU and RLS when first mentioned in the text (not including abstract).

Response: This has now been done. See Line 67 and 82.

6. Line 63 – define EID when first motioned in the main text.

Response: This has now been done. See introduction Line 82 (Introduction section).

7. Line 66 – add space before [24].

Response: This has now been done

8. Lines 71-73 – add relevant reference to this statement.

Response: Standard HIV antibody testing - as is done with adults and older children - cannot identify infected infants in their first year of life, as it also detects maternal HIV antibodies that are transferred to the baby during pregnancy (and subsequently decline slowly within the first year of life) [8,9].

9. References 19 and 26 are the same reference.

Response: This has now been deleted

10. Lines 76-78 – add relevant reference to this statement.

More demanding testing methods that rely on detecting HIV virus, or virological tests are required for diagnosing infants [19]. HIV DNA PCR is the most widely used initial assay for EID in industrialized countries [1].

11. References 27 and 28 are missing in the text.

Response: This has now been added.

12. Line 80 - use brackets for the reference.

Response: This has now been done

13. Line 82- define DBS.

Response: This has now been done

14. Line 88 – unnecessary dot after “Nigeria”.

Response: This has now been removed

15. Line 206 – question at the end of the Table seems out of place – should be in the discussion section.

Response: This has now been deleted.

16. Line 209 – add space after 6 and use brackets for the reference.

Response: This has now been done.

The mean age of infants at first HIV DNA PCR in this study is far beyond the recommended age of 4 - 6weeks for EID testing [1].

17. References 38 and 49 – do not capitalize the first letter of all words.

Response: This has now been done.

18. Line 466 – capitalize HIV.

Response: This has now been done.

19. Line 250 – add comma after 46.

Response: This has now been done.

20. Figures 1 and 2 – define which Y axis relates to which of the categories shown in the respective axis labels.