Review of Manuscript To Authors

The manuscript #A retrospective study of Human Immunodeficiency Virus transmission, mortality and loss to follow-up among infants in the first 18 months of life in a prevention of mother-to-child transmission programme in an urban hospital in KwaZulu-Natal, South Africa# presented by Chetty et al. is reviewed.

The manuscript addresses the problem of loss to follow-up, mortality and HIV transmission in the context of the South African PMTCT programme in a hospital that is state subsidised. Records were reviewed for women assessed and delivered and infants born in a 13 month period in 2008/2009. There is a high Caesarian rate in this cohort and guidelines are slightly different to national guidelines yet evidence based. Transmission is documented (2.7%) for the six week time point but there is little follow-up to 18 months which makes assessing transmission at this point more difficult. Mortality is noted as 1.7% at 6 months while loss to follow-up is high with the highest rate occurring in the early months of life. Late antenatal booking is noted to be a factor. The authors conclude that it is important to investigate loss to follow-up in this context.

The manuscript is relevant to paediatrics and is especially important in the context of the changing South African PMTCT programme where infant follow-up is vital and challenging in the context of high and changing rates of breastfeeding. Addressing the problem of loss to follow-up is therefore useful and it is a problem that many hospitals and clinics will be able to identify with. The methods used by the authors are appropriate and the data is well presented.

Minor Discretionary revisions:

1. When reading the paper, the results and conclusions of the abstract should possibly reflect the effect of late booking.

2. The 135 women who received PMTCT prophylaxis (as opposed to ART for life) include 14 women with #other# in Table 1. This does not come out clearly in the text and would almost suggest when reading it that they did not receive an intervention. This could possibly be clarified.
3. Was there any maternal morbidity or mortality noted or deaths of mothers in the follow-up time. Although this is not the purpose of this study, it may have an effect on infant follow-up.

4. The authors could possibly comment on the high caesarean section rate which may have helped achieve the low transmission.

5. In the supplementary table presenting the Cox analysis, I assume the #n# is for the LTFU group and the #Number# for the whole group. This could possibly be labelled better.

Minor essential points to be addressed:

1. Please check the IQR#s. They seem to mostly be (Min Max) values. E.g. CD4 count 308 cells/mm3 (IQR: 17 to 962 cells/mm3) in the text while in the table 58.8% of women fall between 200 and 499.

2. The number of 166 in care at six months in the abstract and the emphasis on 155 in care beyond 28 weeks does not fit together and may need to be changed in the abstract, though both numbers are probably accurate, they seem to be confusing.

3. When referring to Reference 10 (Jones et al) it may be important to mention that the study was conducted in the time when routine PCR testing at six weeks was not yet part of national guidelines and many sites were doing ELISA tests at 12 months.

4. There is a #be# repeated in the third last line of page 12.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.