**Title of paper**

Factors associated with low uptake of HIV early infant diagnosis among the HIV exposed infant: Towards 90-90-90 target of 2020 in Harare City, Zimbabwe.

·**Name, institutional affiliation Phone number**

Africa University +263 775078425

**e-mail address of presenting author Names of co-authors**

[chikoworemasimba@gmail.com](mailto:chikoworemasimba@gmail.com) i. Chadambuka Elizabeth

·   ii. Chikaka Elliot

**Abstract**

**Background:** HIV Early Infant Diagnosis (EID) done through DNA Polymerase Chain Reaction constitutes an essential part of PMTCT for the exposed infants. The World Health Organization in 2014 set the 90-90-90 target of the year 2020 recommending that at least 90% of the HIV exposed should know their status, at least 90% to have therapy and at least 90% to have viral suppression. Harare City had 78%, 66% and 0% respectively of these targets in 2016. I investigated factors leading to low uptake of EID in HIV exposed infants. **Objectives:** were 1. To determine the predisposing factors (knowledge, attitudes and perceptions about EID and Pediatric ART) that are associated with low uptake of EID and Therapy 2. To establish the reinforcing factors (social support) that are associated with low uptake of EID and Therapy in HIV exposed infants in Harare City.3. To determine the enabling (Health services related) factors that are associated with low uptake of EID and Therapy in HIV exposed infants in Harare City. **Methodology:** An unmatched 1:1 case control study was used. Study participants were recruited using systematic random sampling. Interviewer administered questionnaires were used to collect data. Epi Info version 7 was used to analyze data for Univariate and Multivariate. **Findings**: Knowledge on the available EID services[OR=0.478,95%CI=(0.17;1.29),P-value0.141,married mothers OR=0.75,95%CI=(0.1904;2.9706), P- value 0.7393],, and secondary education [OR=0.19,95% CI=(0.0599;0.5792),P-value 0.0034 were statistically significant with mothers likely to take up early infant diagnosis hence protective. Factors associated with low uptake of early infant diagnosis uptake were prohibitive religion [OR=14.47,95% CI (5.3739;39.0012)P-value <0.0001, lack of money for transport and failure to access health services. OR=13.096,95% CI(4.214;40.695)P-value <0.0001 Implications of the results were indicated and recommendations were made. **Conclusion:** Improvement in EID uptake will help improve life in exposed infants. Further studies should be on the 1. (KAP) knowledge, attitudes and perceptions in regard to EID, 2.There is need for a study on the role of culture, religion, culture and social leaders in EID services. for Harare City to meet the 2020 target.

**Keywords:** Infant Diagnosis, Turnaround time, Uptake