HIV and AIDS has added on to the already existing heavy burden of morbidity and mortality among women and children in low and middle income countries. Infected Pregnant women are at a higher risk of infecting their infants in the absent of PMTCT interventions. The study therefore investigated broadly the factors influencing the uptake of HCT among pregnant women attending ANC.

This was a cross-sectional study, involved mainly quantitative data collection methods. Yamane's formula was used to estimate the sample size and 400 participants were interviewed using structured questionnaires and the data was analyzed using Stata (V12).

The study revealed that about 94.8% of the pregnant women attending ANC clinic tested for HIV during their current pregnancies. The factors that were found to significantly influence the uptake of HCT were; Knowledge that infected women infecting their babies (OR=0.12767, p=0.002), HIV test requires little blood (OR=0.0156, p=0.000), and confidentiality of test result (OR= 0.0156, p=0.000). No societal factor was found to significantly influence HCT uptake in Kapoeta South County.

The researcher established that there was a significant relationship between; knowledge of infected pregnant women infecting their babies, HIV test requires little blood and assurance of confidentiality of HIV test results with the uptake of HCT.

The researcher recommended health workers to continue providing information regarding HIV/PMTCT to the pregnant women during ANC clinic and County Health Department/SMoH to ensure an uninterrupted supply of test kits and other materials to avoid frequent stock outs.