**Tuberculosis Case Finding Outcomes following automation of TB Screening Questions in the Electronic Medical Records; A case Study of Matata Hospital, Homa Bay County.**

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***Abstract*** *H2: Information systems for TB, programme monitoring and TB surveillance*

**Background**

Homa Bay County ranks high in TB and HIV burden in Kenya. Early detection and treatment are key in reducing transmission and mortality hence the deployment of multiple diagnostic technologies for all ages. TB screening is low with an average of 77% of outpatient clients who seek for care do not get screened. Non-standardized way of screening has been used before automation of Active Case Finding (ACF) questions in the electronic medical record (EMR) in the Outpatient Department (OPD). To improve quality and coverage of screening, we sought to evaluate the impact of automating TB-screening questions within hospitals outpatients’ electronic medical record system in Matata, a private hospital in Homa Bay county

**Methodology**

A retrospective comparative analysis of ACF pre and post automation for a period of 8 months each, Jan-August 2020 and Jan-August 2021; of facility’s OPD workload and the number screened for TB. Charts were reviewed to outline characteristics before and after automation. We formulated hypothesis to analyse the differences in the means; H0: The difference between the means is equal to 0, and H1: The difference between the means is different from 0. Independent sample t-test was performed to compare the mean outcomes in 2020 and 2021.

**Results**

The automation of screening led to an overall improved screening rate of 100% which is the National target goal. ACF average yield also improved from 13% in 2020 to 19% in 2021. A two tail t-test of independence gave a mean difference of -149.375 with an observed value of -0.838 and a p-value of 0.416 (14 d.f, α =0.05) at 95% confidence interval. We therefore rejected the null hypothesis that the difference between means is 0.

**Conclusion**

Automation of TB screening in facilities using EMR is a good approach to reducing missed opportunities for TB patients, increase early TB case identification and reduces mortalities associated with TB.