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**POSTER ABSTRACT****Missed opportunities for integrated testing: An Evaluation of the implementation of TB and HIV EID Testing on the GeneXpert platform in Lesotho**

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**Introduction:** Integrated testing of TB and HIV can improve health outcomes and save costs. The GeneXpert (GX) instrument, a multi-disease testing platform, can allow for simultaneous HIV and TB testing. However, utilization of the platform for integrated testing remains suboptimal, and there are operational barriers to implementing integrated TB and HIV testing.

**Methods:** We evaluated the implementation of TB and HIV testing on the GX instrument for early infant detection (EID) of HIV and tuberculosis (TB) testing in thirteen health facilities in Lesotho. The data collection process used a survey questionnaire, semi-structured interviews, and a review of records at each health facility. Data was collected for the period 2017 and 2019.

**Results:** All thirteen health facilities had at least one GX instrument for TB or EID testing. In 2017, the average utilization rate for the GX instrument for TB and EID testing was 63% and 24%, while in 2019, the average utilization rate was 61% for TB testing and 27% for EID. However, none of the health facilities included testing for TB and HIV on the same GX instrument simultaneously. In general, utilization rates were sufficiently low that all the HIV and TB tests undertaken in 2017 and 2019 could have been performed using only the instruments currently dedicated to TB testing. All except for three sites (Scott, Motebang and Maluti) where the testing rates were high.

**Conclusion and Policy Implications:** Much progress has been made in integrating TB and HIV activities in Africa. However, there is a missed opportunity for the integration of testing for TB and HIV on the GX instrument, which could save costs.

This evaluation highlights areas that need more focus and more detailed diagnostic network optimization exercises to improve service delivery and allocate stocks, staff, equipment, and training. Better coordination of donor support or increased flexibility in reporting of use will be important to maximize the use of resources, where integration may be more effective than purchasing new equipment. Monitoring and evaluation should be a routine part of the implementation and should be budgeted and demanded by policymakers and donors. Health

facilities may require additional resources and technical support to improve data collection, analysis, and dissemination.

In conclusion, areas highlighted in this evaluation merit further exploration, such as the need to understand integrated testing models, including what works, why, and for which target groups. This will allow for effective targeted interventions to improve testing coverage across several diseases especially taking advantage of the multi-disease testing platforms.