Abstract of Master's Dissertation

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Thesis Title	**Evaluation of Tuberculosis Contact Investigation at Port Moresby General Hospital in Papua New Guinea**		

Objective : Main objective was to evaluate TB Contact Investigation (TBCI) at PMGH. Specific objectives were to; (1) describe the TBCI process at PMGH, (2) assess the implementation of TBCI at PMGH, and (3) determine the performance of TBCI at PMGH.

Method : A convergent parallel mixed method design was used. The study was conducted from February to March 2020 at the JBK TB Clinic of PMGH in PNG. Data was collected through; 1) participant observations (POs) of TBCI, 2) interviews of the JBK TB clinic staff, and 3) analysis of active TB patient registers for the years 2015, 2018, and 2019. The implementation of TBCI was assessed using the WHO recommendation for TBCI in low-and-middle income countries. Ethical clearance was obtained from Nagasaki University (Graduate School of Tropical Medicine and Global Health) and the PNG Medical Research Advisory Committee.

Result : Findings from the POs identified that all TBCIs were conducted as passive screening where contacts were asked to present themselves at the clinic for screening. All contact cases (CCs) were household contacts. No other type of close contacts such as workplace were reported. Each index case (IC) had one to five CCs with median three. Male ICs had smaller number of CCs than the female ICs. Children of the ICs occupied 41% of the CCs, followed by spouses, grandchildren, and brothers. Only 14 (38%) CCs had their TB test results recorded of which three were TB positive.
Five themes were identified from the interviews; 1) voluntary contact investigation, 2) inadequate staff training, 3) staff shortage, 4) resource constraints, and 5) suggested solutions.
Quantitative results showed that 61% of the patients were diagnosed with pulmonary TB (PTB). There was a steady increase in both PTB and extrapulmonary TB cases since 2015. Children under 15 consisted of 22% while the remaining 78% were adults. 96% of the patients resided within the clinic's catchment area.71% completed treatment successfully, 11% were confirmed as cured, another 11% were reported as loss to follow-up, 3% were transferred out or decentralized to other clinics, 2% died, 1% had treatment failure, and 1% were moved to second line treatment.

Conclusion : Passive TBCI for household contacts was conducted at PMGH due to resource constraints. The main shortfall was poor data management which was related to inadequate staff training and staff shortage. Training staff and integrating passive TBCI with active tracing using existing networks could improve performance, and increase screening attendance which would ultimately enhance active case finding.