**First draft**

**Associate between Worksite and Tuberculosis Infection among Nurse Professional: a Thai Nurse Cohort Study.**

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**Abstract**

**Background:** The spread of tuberculosis (TB) in worksite of the hospital is a health problem that needs to be monitored. Medical personnel who perform the services patients in hospital are high risk of *Mycobacterium tuberculosis* infection especially among nurses who spend a majority of time with patients.

**Objective:** To determine factor association between worksite and TB infection among nurse professional during operation.

**Method:** This study utilized data from the baseline survey of the Thai Nurse Cohort Study (TNCS) database. It was a mailed survey conducted in September 2009 involving a total of 18,756 respondents who were then become members of the Cohort. The primary outcome of this study was tuberculosis (TB) infection in nurses during operation. The factor of interest was worksite in hospital. Exterior factors being controlled for their effects included sex, age, region, work status, work position, type of employment, medical examination to determine the risk of TB, and TB infection in relatives. Effects of tuberculosis were quantified by odd ratio (OR) and its 95% CI using multiple logistic regression.

**Results:** Among a total of 18,756, there were xx,xxx had work in hospital, xx.x% were female, with a mean age of xx ± xx years old. The rate of TB infection during the operation and its 95% confidence interval (CI) was xx.x% (xx.x% to xx.x%). Factors that associated with TB infection, presented as odds ratio (OR) and 95%CI, included worksite (OR = x.xx, 95%CI: x.xx to x.xx; p-value < 0.xxx), female (OR = x.xx, 95%CI: x.xx to x.xx; p-value = 0.xxx), age ≥ 40 (OR = x.xx; 95%CI: x.xx to x.xx; p-value < 0.xxx), workplace in Northeast (OR = x.xx, 95%CI: x.xx to x.xx; p-value = 0.xxx) and mother had TB infection (OR = x.xx; 95%CI: x.xx to x.xx, p-value = 0.xxx).

**Conclusion:** Worksite associated with Tuberculosis (TB) infection.

**Keywords:** tuberculosis, nursing professional, worksite, risk factors, associated, cohort study