

# The Investigation of Tuberculosis Patients in Long-Term Care Institutes and Correctional Institutes in Taiwan

## Abstract

**Objective:** The incidence rate of Tuberculosis (TB) is annually increasing in the world. Among the death of infectious disease in Taiwan, the TB death is still listed in the tops. World Health Organization (WHO) continuously issues a warning of the spread of TB. Researchers point out because of the group life in organizations of high-density population, such as correctional institutions or nursing homes, the TB incident rate is higher than general public. This revealed the importance of TB prevention for the high-density population. This research aimed to analyze the incidence and prevalence of TB in correctional institution and long-term care institutes. In addition, this research would like to investigate the key factors related to cured treatment for TB patients in these two groups.

**Method:** The dataset of TB cases notification in CDC was employed to investigate the TB incidence, prevalence and cure rate in correctional institutions and long-term care institutes. This study used structured questionnaire through the staff in correctional institutions and public health nursing instructors to collect data. There were total 174 valid questionnaires for TB prisoners and 278 valid questionnaires for TB residents in long-term care institutes. Logistic regression was used to analyze the significant factors that influenced the treatment outcome for TB patients in these two groups.

**Results:** The incidence and cure rate in correctional institutions were 0.244% and 72.17%, respectively in 2005. Sixty-four percent of TB prisoners suffered from TB after they entered prisons. Drug side effect was the most bothersome issue (55%) for TB prisoners during their treatment. The best TB-related perception for TB prisoners was the way to take medicine (94.25%). The highest healthcare demand was to have the TB consultation for them. The factors that influenced the cure for TB prisoners were education and the time of suffering from TB. For the TB residents in long-term care institutes, the incidence was 1.157% and the cure rate was 55.14% in 2005. The most perplexed issues were “drug side effect” and “the way to take medicine”. The most healthcare demand for TB residents included “needing someone to tell the disease’ condition to family”, “privacy” and “reducing the drug side effect”. The significant factors that influenced the cure for TB residents in long-term care institutes were gender, taking other medicine during treatment, the treatment time, stopping taking TB medicine, treatment influencing quality of life, drinking alcohol, and the perception of negative effect without complete treatment.

**Conclusions and suggestions:** According to the results, there were higher incidences for TB prisons and TB residents in long-term care institutes than that of general population. This study had some recommendations for health decision makers as follows: (1) The notification and screen for TB should be enhanced before prisoners or residents entered prisons or institutions. (2) The communication between TB patients and physicians, and health education should be improved by physicians or the related staff. (3) The follow-up for non-cured prisons after they leaved prisons should be reinforced. (4) The TB surveillance system in CDC should be assessed for staff who were responsible for TB control in correctional institutions and long-term care institutes. (5) Health education for TB residents and their family should be enhanced to increase their TB knowledge.