

Thesis Title Factors Associated with Reduced-pulmonary
Function of Traffic Policemen in Bangkok
Metropolis.

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ABSTRACT

Factors associated with reduced pulmonary functions were examined for the traffic policemen in Bangkok Metropolis. The study method divided into three parts. First part was the collection of atmospheric respirable dust at different working area of the samples by using personal sampling technique. The second part was the survey of the samples using an interview form. The interview form consisted of four parts ; general information, working history, smoking habit and respiratory symptoms. The third part was pulmonary function test of the samples by using Vitalograph spirometer. The study group was the traffic policemen, consisted of 174 cases and the comparison group was the official policemen, consisted of 173 cases.

The maximum mean concentration of atmospheric respirable dust was found in the working area of Phayathai police station ($647.369 \pm 280.72 \text{ mg/m}^3$). This concentration was much lower than the National Institute for Occupational Safety and Health recommended standard (5 mg/m^3). Forty-four traffic policemen were declining of pulmonary function parameter. Factors associated with reduced pulmonary function were age, duration of working, accumulated respirable dust concentration and past history about respiratory illness ($p\text{-value} < 0.05$). The discriminant analysis on factors affecting reduced pulmonary function included 5 important variables (reported in order of important); Length of employment, area of residence, past history about respiratory illness, height and pattern of protective device used which were into the equation. The equation was used to classify the traffic policemen into both normal and reduced pulmonary function.