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NILARAT PREMMANISAKUL : RISK FACTORS OF MORTALITY ASSOCIATED WITH MOTOR VEHICLE ACCIDENTS IN SARABURI PROVINCE. THESIS ADVISORS : PRATAP SINGHASIVANON, Dr.P.H., KASINEE BUCHACHART, M.Sc., POL.LT.COL.ISARA VAREEKASEM, M.Sc.
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Motor vehicle accident is currently one of the leading causes of death in Thailand resulting in immense loss of both human life and economic resources. This analytical cross-sectional study was undertaken with the aim to determine the risk factors of fatal crashes. The sample was obtained from 446 police records of car accidents in Saraburi province during the year 1994-1995. The variables of interest such as age, sex, license status, speeding, alcohol intoxication, environmental and vehicular factors were classified as exposure factors. The outcome of interest were fatal and non-fatal crashes.

Crude analysis revealed that age of the drivers being less than thirty years (OR=3.8, 95%CI 1.2-11.6), drivers not having license(OR=2.8 95%CI 1.42-5.43), crashes occurring at blind curve(OR=1.8 95%CI 1.04-3.08), crashes resulting in overturned vehicles (OR=4.2, 95%CI 1.39-12.75), crashes resulting from tire puncture ($p<0.05$, Fisher's exact), and crashes involving pedestrians (OR=3.7, 95% CI 1.74-7.88) were found to be significantly associated with fatal outcome. Multivariate analysis was then performed by employing logistic regression model. The variables selected for the model were license status of the drivers, alcohol intoxication, speeding, crashes at blind curve, and crashes involving pedestrians. The age of the drivers was omitted from the model due to a large amount of missing information which resulted in small sample size and thus the lack of precision of the result. After adjusting for the confounding effect there were three factors that showed significant association with fatal vehicular crashes: drivers without license (OR=2.2, 95% CI 1.1-4.7), drunk driving (OR=3.3, 95%CI 1.03-10.2), and crashes involving pedestrians (OR=4.1 95% CI 1.2-13.2). The major drawback of this study is the large amount of missing information on relevant and important factors such as age and license status of the drivers.