

Prince of Songkla University
Pattani Campus

Appendix

อุบัติเหตุการจราจรทางบกในภาคใต้ของประเทศไทย

Road Traffic Accidents in Southern Thailand

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บทคัดย่อ

อุบัติเหตุการจราจรทางบกเป็นปัญหาหนึ่งที่สำคัญของประเทศกำลังพัฒนา สำหรับประเทศไทยในทุก ๆ ปีมีผู้เสียชีวิตจากอุบัติเหตุการจราจรทางบกประมาณ 13,000 ราย การศึกษานี้มีวัตถุประสงค์เพื่อศึกษาแนวโน้มของการตายจากอุบัติเหตุการจราจรทางบกในภาคใต้ในช่วงปี พ.ศ. 2539 – 2549 ข้อมูลที่ใช้ในการศึกษานี้ได้มาจาก ฐานข้อมูลการตายจากใบมรณบัตร ของสำนักงานโยธาและยุทธศาสตร์กระทรวงสาธารณสุข โดยมีจำนวนผู้เสียชีวิตจากอุบัติเหตุการจราจรทางบกในช่วงปีดังกล่าวจำนวน 17,498 ราย อัตราตายคำนวณจำแนกตามตัวแปร เพศ อายุ และ จังหวัด ผลการศึกษาพบว่า อัตราตายในเพศชายสูงกว่าเพศหญิง และกลุ่มอายุ 15 – 24 ปีมีอัตราตายจากอุบัติเหตุการจราจรทางบกมากกว่ากลุ่มอายุอื่นๆ จังหวัดนราธิวาส ปัตตานี และ ยะลา มีอัตราตายต่ำกว่าจังหวัดอื่นๆ นอกจากนี้ ในช่วง 11 ปีดังกล่าว จังหวัดกระบี่ และ ภูเก็ต มีแนวโน้มของอัตราตายเพิ่มมากขึ้น ขณะที่จังหวัดอื่นๆ มีแนวโน้มลดลงหรือเปลี่ยนแปลงเพียงเล็กน้อย

คำสำคัญ : อุบัติเหตุการจราจรทางบก อัตราตาย ภาคใต้ ประเทศไทย ใบมรณบัตร

Abstract

Road traffic accident mortality is a major problem in developing countries. In Thailand, there are approximately 13,000 road traffic deaths every year. This study aimed to investigate trends in road traffic accident deaths in southern Thailand, from 1996 to 2006. The data was taken from the death certificate database of the Bureau of Health Policy and Strategy, Ministry of Public Health. There were 17,498 cases of road traffic accident death. The mortality rates were computed classifying by gender, age and province. The mortality rate for males was higher than that for females. For age group, the highest rate was for persons aged 15 – 24. There were low mortality rates in Pattani, Narathiwat and Yala. In addition, over the eleven years period the mortality rates increased in Krabi and Phuket while other provinces the rates decreased or little changed.

Key words: road traffic accident mortality rate southern Thailand Death certificate

1. Introduction

Road traffic accident (RTA) is a major problem for public health globally. WHO reported about 1.2 million people was killed from RTA in every year. RTA is a major cause of death for middle and lower-income countries which were 90 percentage of whole road crashing kill around the world (World Health Organization, 2004). The reasons are increasing of motor vehicle numbers, poor enforcement of traffic safety and poor public health infrastructure and services (Nantulya & Reich, 2002).

In Thailand, there were 23.9 million motor vehicles resided in 2006 (Department of Highways, Ministry of Transport, Thailand, 2008) and approximately 66,300 people died

from road traffic accidents from 2002 to 2006 with the average of 13,260 deaths per year (Mahaisavariya, 2008).

There are many barriers that lead all road safety measures in Thailand beyond from its goals such as lacking of policy guidance and gap of appropriate in law enforcements and corruption, unable of monitoring and evaluation of road safety measure's goals (Suriyawongpaisal & Kanchanasut, 2003). Moreover trauma care systems in Thailand are still poor, in road crashing scenes, there is no trained emergency service person for pre-hospital care. Almost patients have to access to the hospitals by themselves with no pre-hospital caring which may be die before reach to the hospital (Bavonratanavech, 2003).

The aim of this study is to investigate trends in road traffic accident deaths in southern Thailand, from 1996 to 2006 inclusive.

2. Method

The data on road traffic accident deaths in southern Thailand from 1999 to 2006 inclusive was obtained from Bureau of Health Policy and Strategy, Ministry of Public Health Thailand. The data were collected from death certificate. These data contained information including gender, age, place of death, place of residence, date and cause of death that coded by using ICD10 (International Classification of Diseases 10th reversion) The number of population obtained from the Population and Housing Census of Thailand in the year 2000 undertaken by the National Statistics Office of Thailand.

A dependent variable was the mortality rates that were calculated as:

$$Y = \frac{Kn}{P} \quad (1)$$

Where Y is mortality rate, n is number of deaths, P is population at risk and K is constant as 1,000 or 10,000. The number of road traffic accident deaths was obtained by aggregating road traffic accident deaths according to interest independent variables including gender, age, and place of death, which is province that death occurred.

All statistical analysis and graphic in this study were conducted by using R (R Development Core Team, 2009).

3. Result

There were 17,498 cases of road traffic accident death in southern Thailand from 1996 to 2006 inclusive.

Figure 1 shows trend of road traffic accident mortality rates for males and females with dotted lines represent overall mean of mortality rates and above dashed line represent mean for males and below for females. The overall mortality rate was 2 persons per 10,000 population and 3.15 and 0.85 for mean of male and female's mortality rate respectively. As showing, there was much gap in both genders' trends Male's mortality rates were significantly higher than that of female and overall mean of mortality rates. For male the highest rate was 4.2 persons per 10,000 population that found at 1996. There was a decreasing trend from 1996 to 1998 and increasing trend form 1998 to 2001 after that year the rate no much changed from 3.2. For female there was a little change over this period.

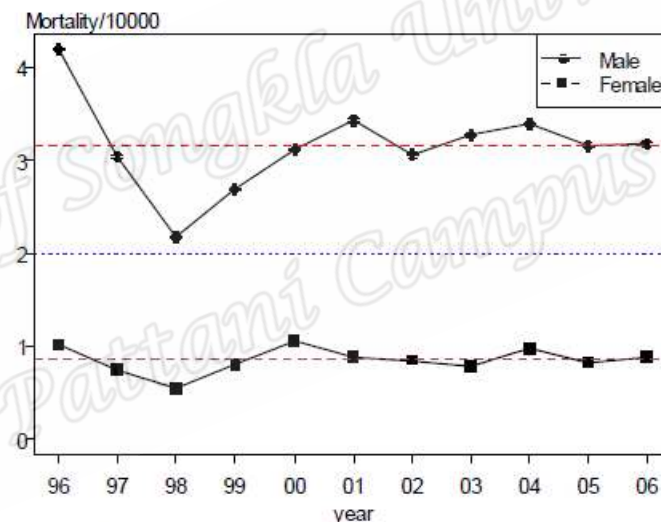


Figure 1: Overall annual road traffic accident mortality rates for each gender

Figure 2 shows mean age-specific mortality rates with dashed line represent the overall mean. The mortality rates were very high for people aged 15 to 24 year olds. The rates were about moderate around overall mean for the people age 35 to 65. The rate was high again at aged 75 to 79 year olds but after that age group rates much dropped.

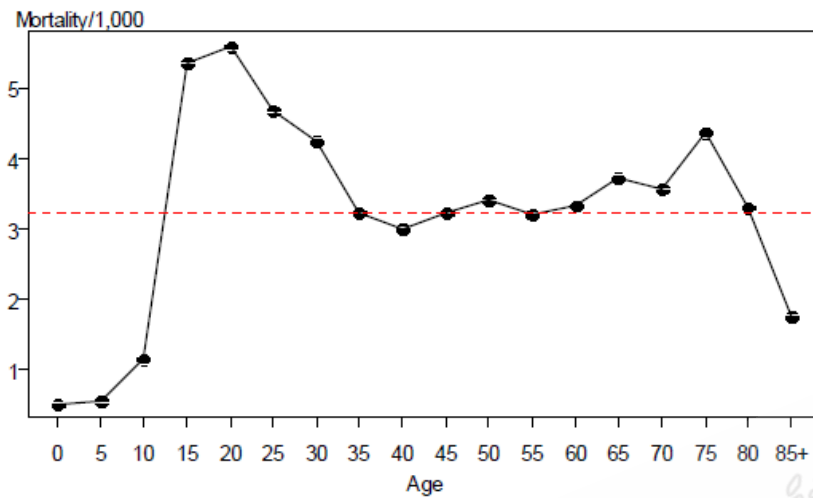


Figure 2: Age patterns of road traffic accident mortality rates

Figure 3 shows road traffic accident mortality rates for each province with dashed lines represent overall mean. There were only three provinces that trend of mortality rates were below the overall mean in this period including Pattani, Yala and Narathiwat. Surat Thani, Krabi and Phuket were the provinces that have an increasing trend after the year 2002.

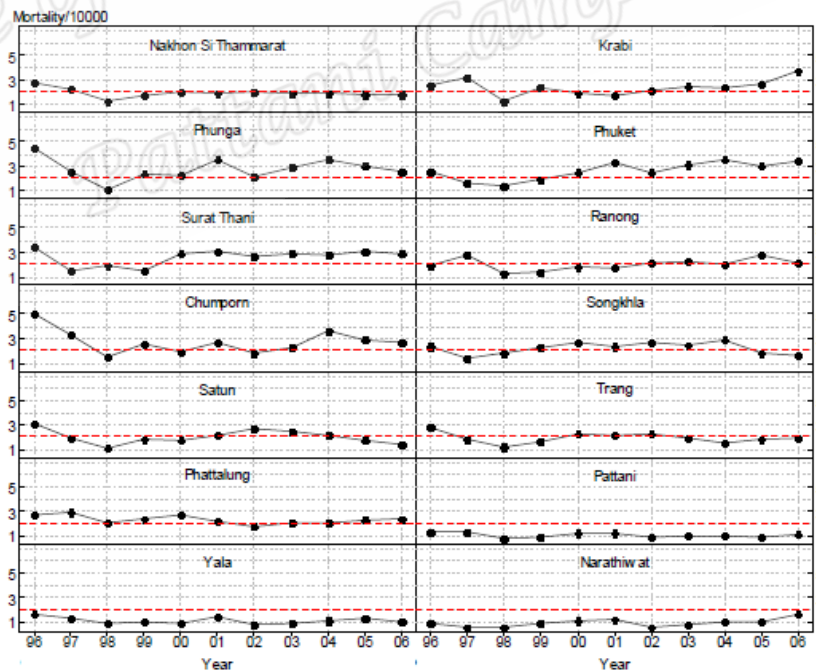


Figure 3: Overall annual road traffic accident mortality rates for each province

4. Summary

The overall mortality rates of road traffic accident were 2 persons per 10,000 population with 3.15 for males and 0.85 for females. The results from this study implied that people aged during 15 to 24 year olds were more likely to die from road traffic accident than other age groups while older aged during 75 to 79 year olds have more risk than middle-age group. Furthermore males are more vulnerable from road traffic accident death than females. There were low mortality rates in Pattani, Narathiwat and Yala. In addition, over the eleven years period the mortality rates increased in Surat Thani, Krabi and Phuket while other provinces decreased or little changed.

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