

# CHAPTER I

## INTRODUCTION



### 1. Background

Beginning of the nineteenth and continuing throughout the twentieth century, industrialization and commercialization have changed the way people live and, correspondingly, the nature of their health problems. Throughout the world, some of these changes are closely related to transport development.

In both developed and developing countries, movements of goods and passengers and investment in transport infrastructures have increased greatly. Because of the emergence of the transportation system, the vehicles play a dominant role in the world of fast movement and is one of the most used modes of transportation. In addition to positive effects, there are some unwanted side effects of this growth in road traffic, accidents being the most crucial, representing a severe and growing problem with high rates of fatalities and casualties.

Globally, more than 1.2 million people die of road traffic accidents. It accounts for 2.3% of the global mortality. Deaths from road traffic accident injuries are the tenth leading cause of death among all ages. Over 90% of these deaths occur in the middle and low-income countries, where death rates (21 to 24 deaths per 100,000 population, respectively) are approximately double the rates in high-income countries.

(12 per 100,000 population). The majority of deaths are young adults with significant loss of life, so the proportion of disease burden measured in disability-adjusted life years (DALYs) is greater, about 12.2 % of the total. (WHO, 2002) The global burden of road traffic injuries is expected to move from the ninth position in 1990 to the third position by 2020. This mainly due to the increasing incidence of road traffic crashes in low and middle-income countries. (<http://www.who.int/msa/mnh.ems/dalys/> )

## **2. Situation of Road Traffic Accidents in Lao P.D.R.**

In Laos, like in the other low-income countries, technological development advances rapidly and modern technology surpasses the development of social and cultural aspects including the Lao life style. The society, currently, does not value the disciplining of its members on road safety and social responsibilities. The number of road traffic accident in Laos increased from 2,117 cases and 180 deaths in 2000 to 4,023 cases and 347 deaths in 2001(Road Traffic Police Department, Lao PDR, 2001)

The main problems involved in road traffic accidents are lack of user's knowledge on road traffic, lack of responsibility to the society, substandard of issuing vehicle driving licenses, negligence of traffic law enforcement and regulation effectively etc.

Because of development and the changes in life style, transportation and vehicles become essential for living. However, technological and social developments are out of proportion. People are poorly instructed and educated on safety of road usage. This leads to lack of knowledge on and understanding of traffic rules, regulations and safety.

Many motorists and pedestrians violate and disregard traffic laws. They speed and drive carelessly, impulsively and dangerously overtaking other vehicles.

Because of lenient regulations on driver's license issuance, inadequate testing on driving knowledge and lack of instruction on safety of road usage and on traffic rules, many motorists violate traffic rules as a consequence. Some lack driving skills because they have not attended a driving school that meets the required standards. Motorists and pedestrians do not respect laws. They often commit the same offenses for instance, motorists ignore red lights, some drive at high speed, especially young drivers, and vehicle defects. Because of low income, people can not buy a standard car, the majority of them use a motorcycle which is less safe. Moreover, roadways are also in a bad condition, e.g. they are slippery due to rain or from dirt dropped by trucks. Some roads are under construction or repair but no road signs are put up to warn drivers. There are no road tunnels, fly-overs, and only few zebra crossings on the road.

### **3. Problem Significance and Rationale**

As road traffic accidents are increasing globally, WHO has set the theme 'Safe Road' for 2004 world health day. The national and international communities are giving much priority to this problem. Most of the time adults suffer from the road traffic accidents. The risk of motor vehicle crashes is higher among 16-19 year-olds than among any other age group. Teen drivers ages 16-19 are four times more likely to face than older drivers to crash (CDC, 2001).

Vientiane is one of the municipalities in Lao PDR with a population of 616,000. A total of 84,269 vehicles were registered in this municipality until 2001. Motorcycle usage is very fashionable in this place. Among all vehicles registered, the number of motorcycle is 68,600. The ratio between cars and motorcycles is 1:4. The numbers of accidents are increasing. Among the total road traffic accidents teen-age accidents cases are 36.5%. Although there is a clear law regarding minimum eligible age for vehicle driving, many teen school students are seen driving.

Reducing road traffic injuries will require multidisciplinary research to find the factors and causes. However, it is not within the scope of this study to address the complexity of this problem. Therefore this study will be limited to assessing drinking and driving among high school students.

#### **4. Conceptual Framework**

Regarding to the driver-vehicle –road system, there are three main factors of road traffic accidents such as human errors, vehicle defects, and environmental (road condition) factors Shina, (1978: 2).

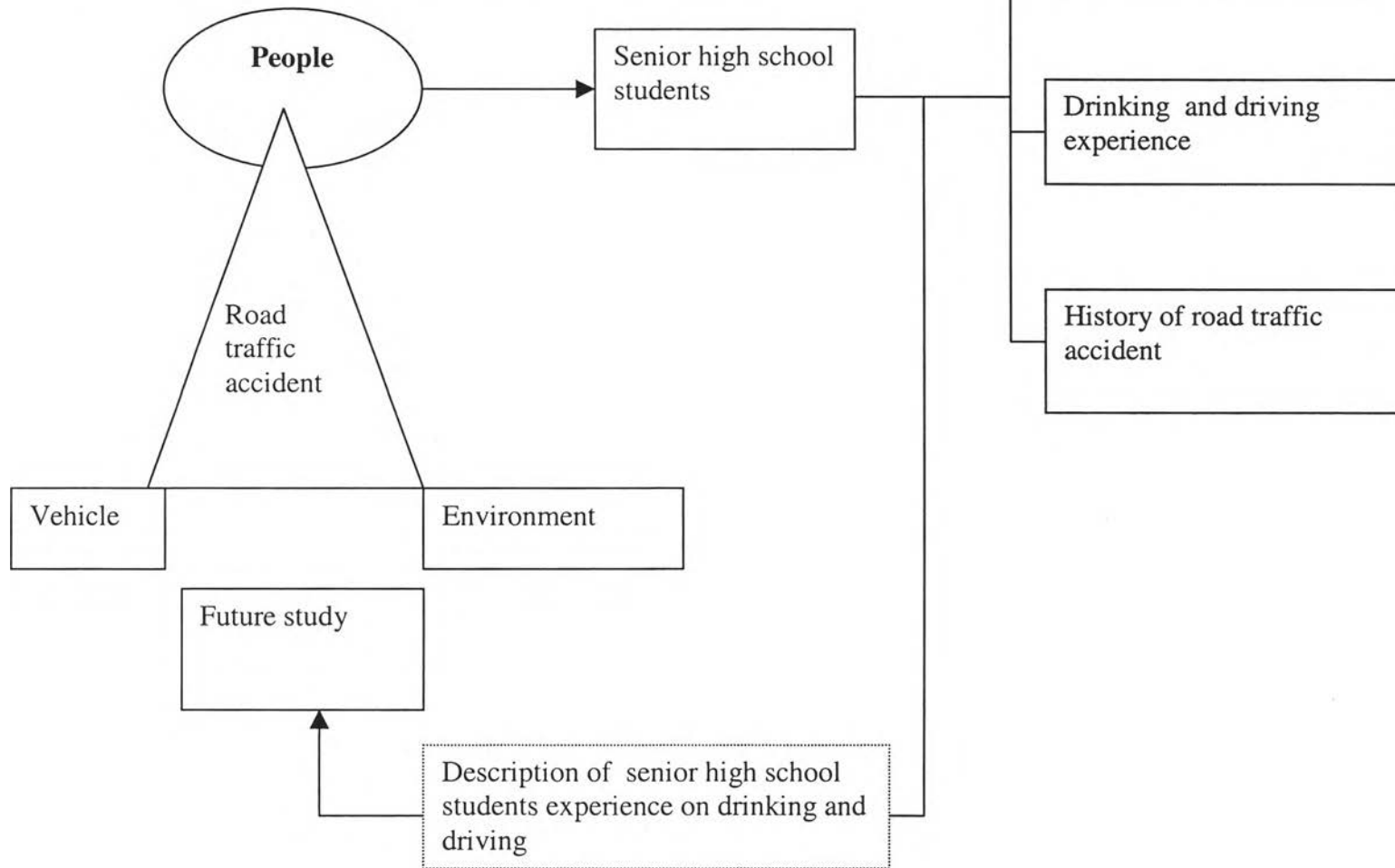
The bad conditioned road is the main environmental factor of road traffic accidents. For example roads are under construction, dusty road or slippery from rain. Although some roads are in good condition but sharply road curves cause traffic collision. Other environmental factors are regulation such as traffic rule and driver's license issuance also influence road traffic problems.

In the middle and low-income countries the vehicle defect is one of factors of road traffic accident. Since low-income, people are not able to buy a standard or safety vehicle. Especially for high school students who can not earn money by themselves. Two wheel-motorized vehicles are fashionable in young people in poor and developing country. The two wheel-motorized vehicles are difficult to control and unsafe while driving in a bad atmospheric condition, so the majority of road accidents in these countries are the motorcycle.

As an information processor and vehicle controller, human play an important role in this system. Various researches found that the most cause of road traffic accidents is human factor. Theses research figures showed the majority of accidents are adolescent or students. WHO report 2002 shows that the risk factor of the road traffic injuries in both developing and developed countries is alcohol. The driving under influence of alcohol is very common cause of road traffic accidents. It therefore is very important thing to knowing the drinking and driving behavior among high school students represent the future productivity of the countries

In order to control the burden of road traffic injuries, the description of experience of the senior high school students on drinking and driving is the important information for prevention plan , this research will be conducted in senior high school students in Vientiane Municipality, Lao.PDR. This study will describe the Experience on drinking and driving of senior high school .The figure of this study would be the basic data for further study in road traffic accident in adolescence.

Figure 1. Conceptual framework of study



## **5. Purpose of the Study:**

The purpose of this study is to describe the drinking and driving experience of senior high school in the Vientiane Municipality, Lao PDR to inform health promotion intervention planning.

## **6. Research Questions:**

- a) What are the socio-demographic characteristics of senior high school students?
- b) What are the drinking and driving experiences of the senior high school student in Vientiane Municipality, Lao PDR?
- c) What road traffic accident Experiences did students face?
- d) What are the relationship among these variables.

## **7. Objectives of the Study:**

1. To describe the Socio-demographic characteristics of high school student's motorcyclists in Vientiane Municipality, Lao PDR.
2. To describe the driving behavior of senior high school student motorcyclists in Vientiane Municipality, Lao PDR.
3. To describe the drinking experience of senior high school student motorcyclists in Vientiane Municipality, Lao PDR.
4. To describe the history of road traffic accident of senior high school student motorcyclists in Vientiane Municipality, Lao PDR.
5. To describe the relationship among Socio-demographic, driving and drinking experience and road traffic accident.

**ต้นฉบับ หน้าขาดหาย**