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The Comparison of Traffic Accident Prevention among Older People between Urban and Rural Area in The Northeastern of Thailand.

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Abstract

This is descriptive research, study both quantitative and qualitative data, aimed to compare traffic accident situation, traffic accident prevention, and compare behavior between senior people who have experienced of traffic accident including compare health literacy skill for traffic accident prevention among senior people between urban and rural area.

The participants were senior people both female and male > 65 yrs old 728 persons in 2 provinces, in the Northeastern Thailand, both urban and rural area Including senior people who had experience of Traffic accident. 208 persons in khon Kaen and Buengkarn Province, Thailand. Data were collected by interviewing for quantitative data, focus group discussion and in-depth interview as well as observation for qualitative data. Data analysis by using SPSS program for percentage, mean, deviation. Content analysis for qualitative data.

The results showed that

1. Traffic accident situation in senior people most were motorcycle ,at main street , due to high speed driving , drunk drive , hit animals on the road ,and bad environment, most of them were good perception of traffic accident prevention both in urban and rural area but senior people in rural area believe that traffic accident unpreventable because of sin or evil creature.

2. Health literacy for traffic accident prevention among senior people were difference between urban and rural area in cognitive skill, communication skill and practical skill at $p < 0.05$, on the other hand no difference of health literacy in access to information skill , decision making skill, self management skill and media literacy skills for traffic accident prevention.

3. Senior people who had experience of traffic accident found that factors related of traffic accident was careless human factor both urban and rural area , most of traffic accident not severity, admit hospital < 5 days or for make incision and return home.

4. Recommendation for road safety both senior people from urban and rural area were should improve of safety road, suitable vehicle, safety environment and continuing campaign throughout the year, strictly respect for traffic rule as well as local authority must increase concern for road safety for senior people.

5. Vehicle : Accident by car occur traffic accident in rural more than urban area and not too much severe, both urban and rural area same rate of traffic accident by motorcycle ,trike, three wheel vehicle, urban are found accident by bus, bicycle, mean while rural area found more accident in pedestrian or walk on street and agricultural vehicle.

Key words : health literacy skill, traffic accident prevention, senior people, urban and rural area, Northeastern of Thailand

CHAPTER I INTRODUCTION

1.1 Rationale

Road accidents is a critical issue that all countries are facing, which is the tendency of injury and death is increased by the World Health Organization indicate that adolescent and youth groups, starting with the deaths from accidents on the road, it shows that the world population had died from accidents on the road up to 1.25 million per year and of these deaths, 90% are in medium to low income countries by the militants almost half (49%) occurs with a group of motorcycle and pedestrian also found that in countries that have a death rate from road accidents, the world's top five countries, Libya is high. Country Thailand Malawi Liberia and the Congo at a rate equal to the death, 35, of 73.40 36.20 33.20 33.70 and, per hundred thousand population, **respectively, the World Health Organization (WHO, 2015**)

Traffic accidents are a serious problem in Thailand in every province. This leads to public health, economic and social problems. The number of people are killed on road traffic accident each year approximately to 13,000 while the number of injured could be as 1 million, more than 90% of traffic accident found in developing countries. (WHO,2010), Southeast Asia would be predicted most serious of traffic accident problem in the year 2020.

Accident situation in South East Asia and Southeast Asia, 10 countries found that countries with the death rate from road accidents highest is Thailand 36.20 per one hundred thousand population, followed by Vietnam with 24.50, Malaysia 24 ,Myanmar 20.30 and Cambodia 17.40 (WHO, 2015).

The accident caused major problems of life in Thailand. According to the Bureau of Non-Communicable Diseases found that the number of deaths from road accidents in the year.2012 - 2014 up to 14, 059 people, 14, 789 and 15, 045 respectively, where the death rate is 21.88, 22.89 and 23.16, respectively, per one hundred thousand population (NCD Bureau, 2015).

The National Bureau of statistics report the study situation of world population and the Thai population showed that the world population increases continuously. By the 2007 population all over the world is 6, 605 million. But the population 2037 will be the 8 ,725.7 million people. The Asia will have a population at the most. The China and India have the largest population of the world 1 and 2 respectively consequent.

According to a survey of the elderly population in the year 2007 shows that Thailand become to be ageing society rapidly, has a population of approximately 7 million old age people, the elderly accounted for 10.7 percent of the entire population of Thailand. The change in the age structure of the population to access the older population is quite a short period of time when compared to many developed countries, the ratio of the population of seniors Thailand will increase from 9.3 percent in 2000 to 19.2 percent in the year 2025, which took about 22 years to increase the proportion of the elderly population to double. While most developed countries have to take about 70 years to 100 years. (Knodel J and Chayovan N, 2008). Therefore Thailand should prepare for serving this situation rapidly and must to study in many aspects for facing the numerous changing is challenge.

The elderly also one Thailand driving even more than 60 years age, although not as much as the elderly in Europe. However, in the future there will be more elderly more driving in Thailand. Because of old age people stand up currently does not have a lot of system readiness assessment of elderly people who were also driving the traffic accidents are the cause of injury. Disability and death are critical in the country and it is a major risk group due to changes in physical health. An important risk factor of accidents from driving in older people is more than 85 years of age, have a vision problem and has dementia so seniors with various Dementia caused by degeneration of the body is decreased muscle. Agility in responding to critical events, slow down. The work between the different organs, coordination and concentration. Furthermore, if a simple fatigue driving for long periods of time. Many diseases that occur in the elderly, it is involved in making accidents easier include various kinds of eye diseases such as glaucoma cataracts. Retinal degeneration, etc, osteoarthritis and epilepsy, Parkinson's disease, etc.

In Thailand the accident in the elderly found that the most characteristic 35.4 percent of injuries were caused by falls, fractures were found to have the most. Seniors are also experiencing a traffic accident. It was found up to 22 percent. One of accidents in the elderly The causes of traffic accidents are very common due to the street and was hit by a car.

Motorcycles and cars, mainly caused by poor eyesight and bad sound. Passenger accidents usually occur during get on and get off the car and the car moves ahead or in the car was struck by a sudden stop. The accident also lead to physical disability and psychological effects. The lack of confidence causing problems for the elderly and also a burden on relatives. The family and society So to prevent accidents in the elderly. It is particularly important (Thanawat Sumkampang and Kanchana Na Ta Pin Hu, 2011).

Therefore researchers would like to study the comparison of traffic accident prevention among older people between urban and rural area in the Northeastern of Thailand for problem solving for traffic accident prevention among old age people further.

1.2. Research Question

1. What is difference of traffic accident situation among old age between urban and rural area.?

2. What is difference of traffic accident prevention among old age people between urban and rural area.?

3. What is difference of health literacy on traffic accident prevention among old age people between urban and rural area.?

1.3 Research Objectives

1.Compare traffic accident situation among old age between urban and rural area.

2. Compare traffic accident prevention among old age people between urban and rural area.

3.Compare health literacy on traffic accident prevention among old age people between urban and rural area.

1.4. Limitation

This research study in only 2 Provinces are Khon Kaen province and Buengkarn province in the Northeast of Thailand..

1.5. Research Useful.

1. know situation of traffic accident among old age between rural and urban area and how to solving the problem..
2.Reduction of mortality and disability from traffic accident of old age people
3. know the different of traffic accident between follow health literacy.

1.6. Definition of terms

Risk Behavior : are those opinion and activity expose people to harm, or dangerous.

Health literacy : Health literacy as a public health goal, a challenge for contemporary health education and communication strategic in to 21st century, access health information, which is an effective way to improve population health and decreasing of disease, mortality and morbidity rate lead to good health status as well as good quality of life

Health Literacy skill. There are 6 components of health literacy such as

1. Know & understanding
2. Access health information..social media etc
3. Communication skill
4. Decision making :..selection ..consideration
5. Self Management. Set target ..planning
6. Media Literacy… adjustment

Old age people : the people both male and female are more than 65 years old.

Urban are : municipality area

Urban area : out side municipality area

CHAPTER 2 METHODOLOGY

This research specific focus on traffic accident between rural and urban area, consequently related research literature was reviewed in the following topics.

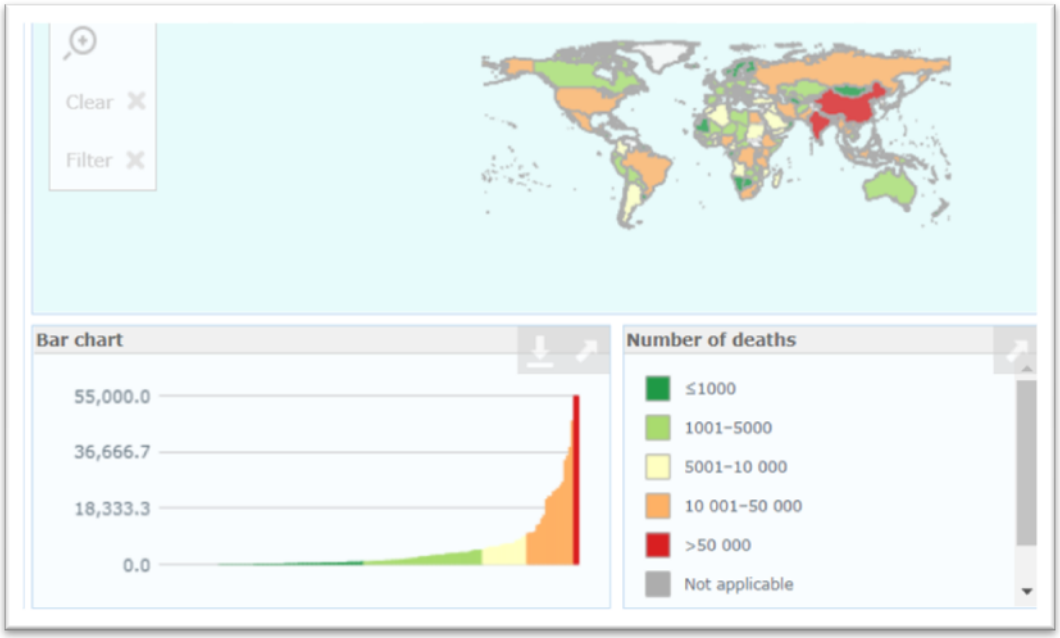
2.1 Road traffic accident situation in the world
2.2 The road traffic death rate by WHO region and income level
2.3 Road traffic accident situation in Thailand
2.4 Old age people
2.5 Health Literacy
2.6 Conceptual framework

2.1 Road traffic accident situation in the world.

1.The Global status report on road safety

The Global status report on road safety 2015, reflecting information from 180 countries, indicates that worldwide the total number of road traffic deaths has plateaued at 1.25 million per year, with the highest road traffic fatality rates in low-income countries. In the last three years, 17 countries have aligned at least one of their laws with best practice on seat-belts, drink–driving, speed, motorcycle helmets or child restraints. While there has been progress towards improving road safety legislation and in making vehicles safer, the report shows that the pace of change is too slow. Urgent action is needed to achieve the ambitious target for road safety reflected in the newly adopted 2030 Agenda for Sustainable Development: halving the global number of deaths and injuries from road traffic crashes by 2020. Made possible through funding from Bloomberg Philanthropies, this report is the third in the series, and provides a snapshot of the road safety situation globally, highlighting the gaps and the measures needed to best drive progress.

Figure 1 The global number of deaths and injuries from road traffic crashes.

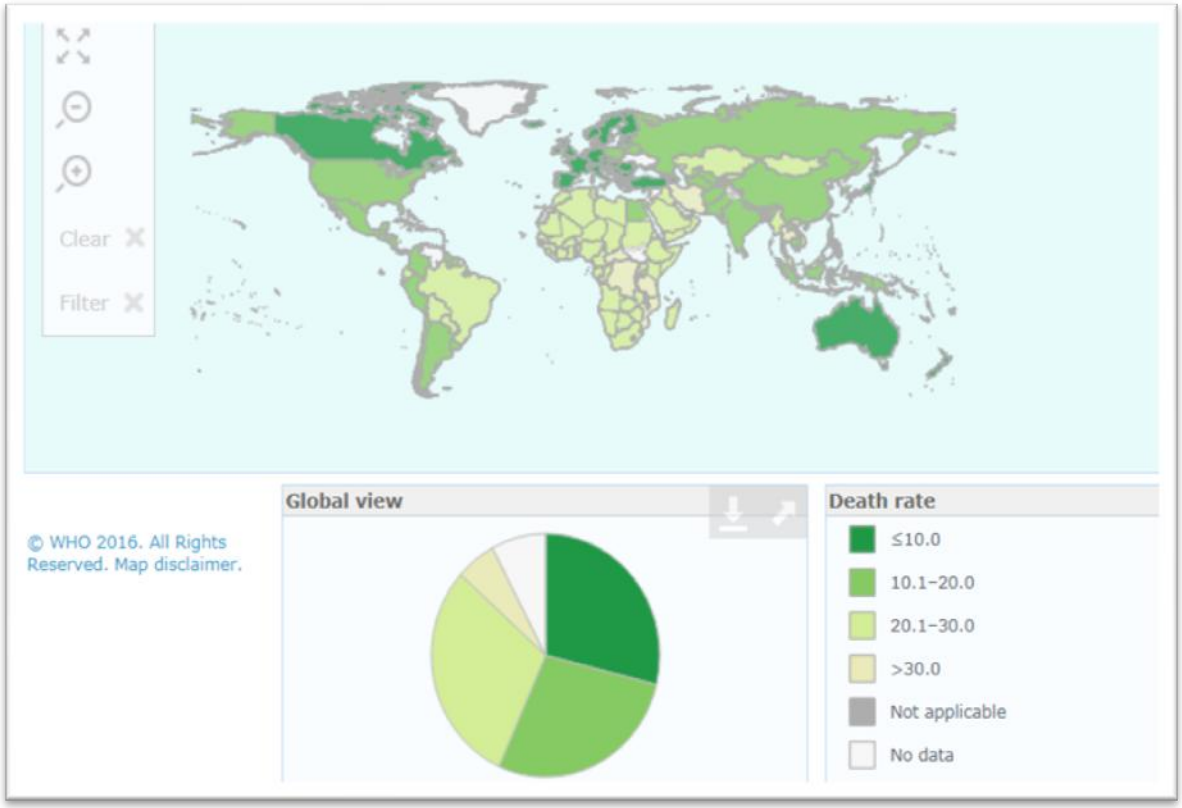


Source : **http://www.who.int/violence_injury_prevention/road** [1 Oct 2017]

2. The road traffic death rate by WHO region and income level

The road traffic death rate by WHO region and income level: In 2013, low- and middle-income countries had higher road traffic fatality rates per 100 000 population (24.1 and 18.4, respectively) compared to high-income countries (9.2). The African region had the highest road traffic fatality rate, at 26.6, while the European region had the lowest rate, at 9.3.

Figure 2 The road traffic death rate by WHO region and income level



Source : http://www.who.int/gho/road_safety/en/ . [1 Oct 2017]

More than 1.2 million die and as many as 50 million are injured every year in Road Traffic Injuries (RTIs). The overwhelming majority of these deaths occur in low and middle-income countries (LMICs) and 40% in the four BRIC countries alone. Recent trends suggest this gap is increasing. In the past fifteen years, RTIs have increased by almost 80% in Asia and by 40% in Latin America and Africa. The opposite is true in high-income countries, however, where RTI rates have been on a path of steady decline over several decades.

Beyond the enormous personal suffering they cause, RTIs weaken economic growth, place a huge strain on health care systems, and challenge development objectives. Across LMICs, losses due to RTIs are estimated at USD 100 billion/year, a figure which incorporates immediate direct costs, such as hospital care admissions, and longer term human capital costs associated with RTI victims no longer being able to take

part in economic production processes. At national level, this aggregate translates into losses of 1-3% of GDP, a figure comparable to what LMICs receive in development assistance (world Bank,2013)

On 11 May 2011, the Decade of Action for Road Safety 2011-2020 was launched in more than 100 countries, with one goal: to prevent five million road traffic deaths globally by 2020. Moving from the Global Plan for the Decade to national action, many countries have taken measures towards improving road safety, either by developing national plans for the Decade; introducing new laws; or increasing enforcement of existing legislation, among other concrete actions. The recent UN General Assembly resolution on global road safety sponsored by more than 80 countries gives further impetus to the Decade by calling on countries to implement road safety activities in each of the five pillars of the Global Plan. (world Bank,2013)

2.2 ROAD SAFETY IN THE SOUTH-EAST ASIA REGION 2015 :

The South-East Asia Region contributes 25% of the total global road traffic deaths There are approximately 316, 000 road traffic deaths each year that occur in the South-East Asia Region, accounting for approximately 25% of the world's road traffic deaths. This represents a plateau in the number of deaths, from 315, 000 in 2010 to 316 ,000 in 2013: this stabilization is positive in that it takes place in the context of increasing motorization and population growth in the region. The region's road traffic fatality rate, at 17.0 per 100, 000 population, is below the global rate of 17.4 However, there is considerable variation in fatality rates within the region, ranging from 3.5 per 100, 000 in the Maldives to 36.2 per 100 000 population in Thailand. In the year 2013, low- and middle-income countries had higher road traffic fatality rates per 100 ,000 population http://www.who.int/violence_injury_prevention/road_safety_status/2015/[9 September 2017] Thailand is the most high rate of injury in Southeast Asia

Figure 3 Rate of injury in Southeast Asia

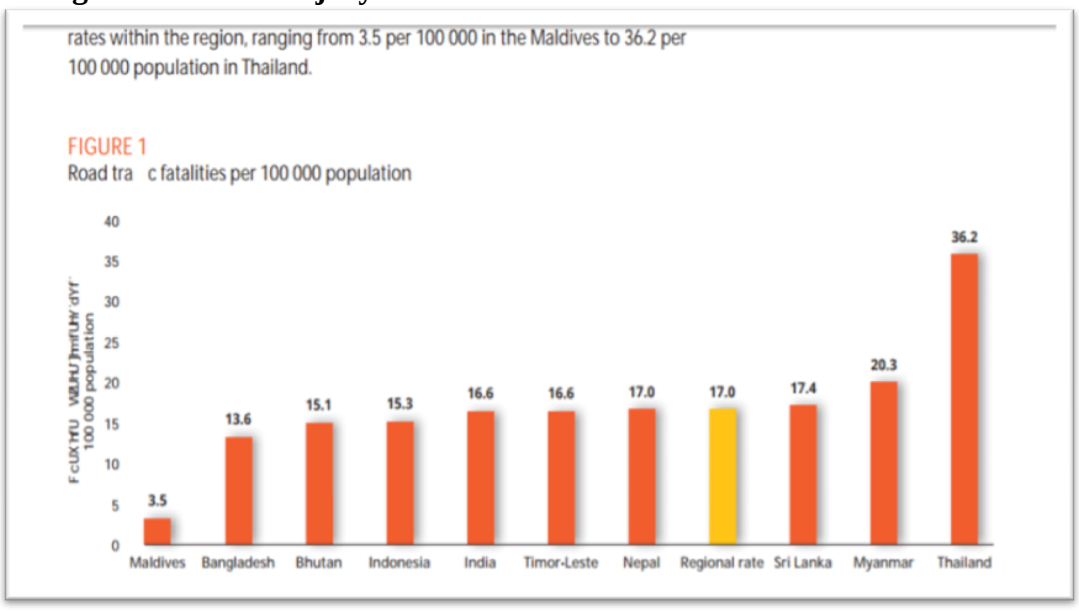
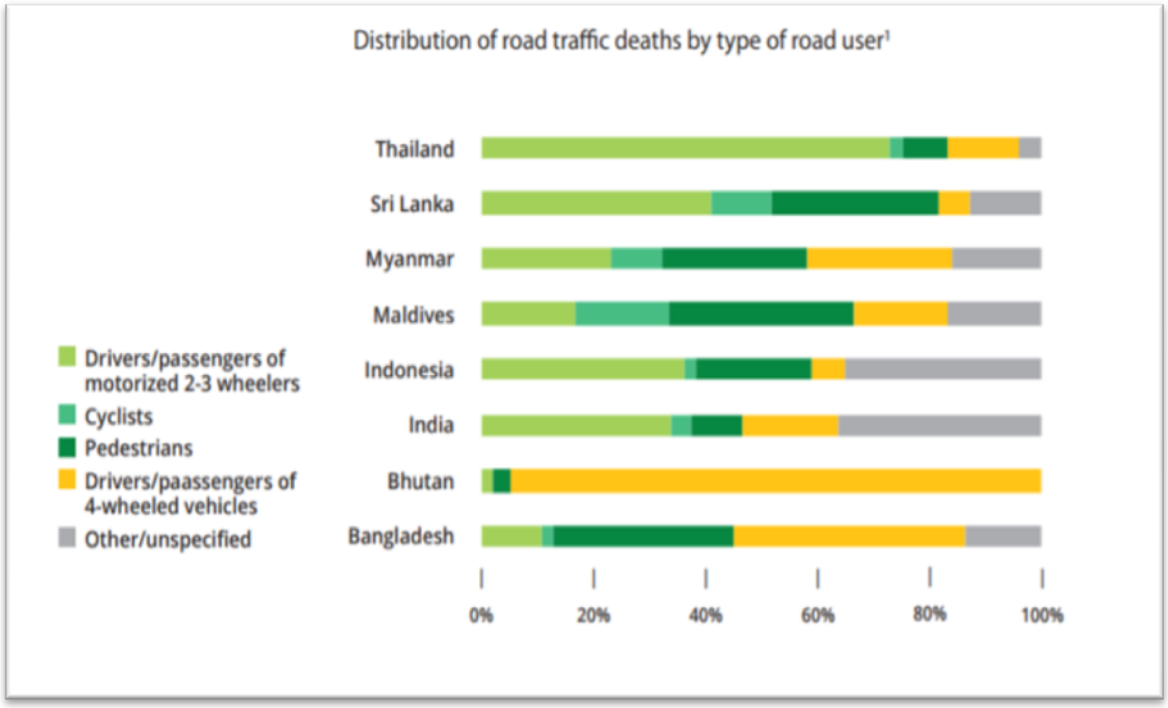


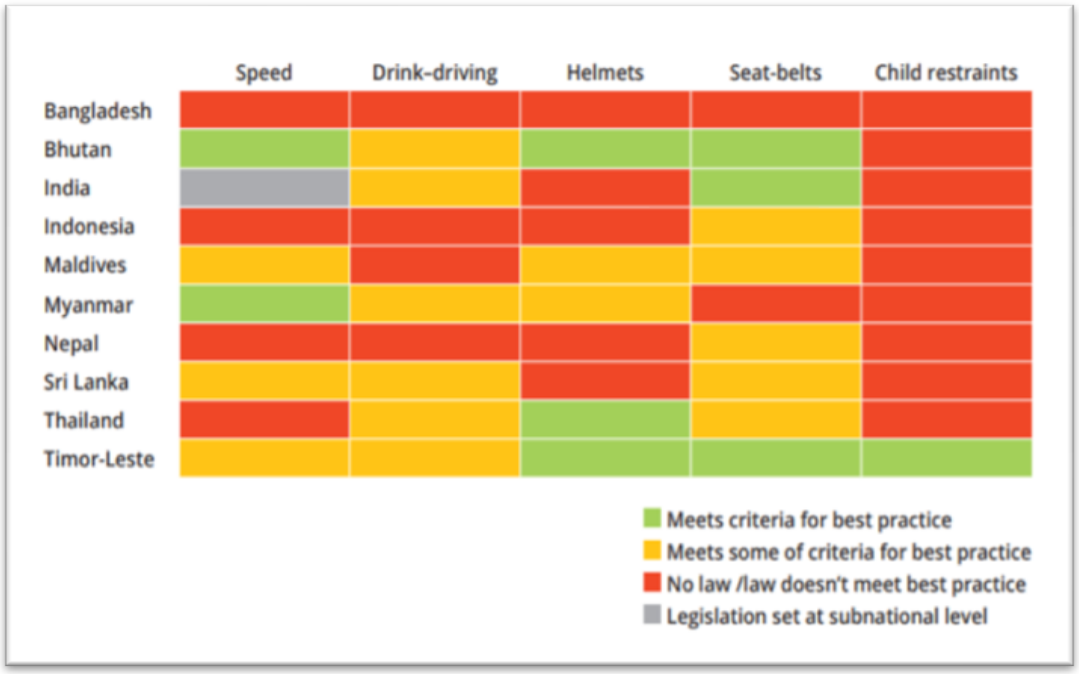
Figure 4 Road of traffic death by type of road user
Source :http://www.who.int/violence_injury_prevention/road_safety_status[9September2017]



However, this regional breakdown of deaths understates the overwhelming burden of deaths among vulnerable road users in all countries except Bhutan (where car occupants are the most affected). There is also much variation in the group most affected: in Thailand, for example, 83% of road deaths are among vulnerable road users (with motorcyclists comprising the bulk of these, at 73%), while in Bangladesh, the Maldives and Sri Lanka pedestrians account for approximately a third of road traffic deaths [www.who.int/violence_injury_prevention/road_safety[9September2017]

Countries need to strengthen road safety legislation Road safety laws improve road user behaviour and can be an effective tool in reducing road traffic crashes, injuries and deaths. The most positive changes to road user behaviour happen when road safety legislation is supported by strong and sustained enforcement, and where the public is made aware of the reasons behind the new law and the consequences of noncompliance. This section reports on an assessment of countries' current legislation to meet five key behavioural risk factors for road traffic injuries: speed, drink–driving, failure to use motorcycle helmets, seat-belts and child restraints. There is a strong evidence base showing the positive impacts that legislation on each of these risk factors can have on reducing crashes, injuries and deaths. A summary of the countries' legislation on the 5 risk factors is shown.

Figure 5 the countries' legislation on the 5 risk factors .



2.3 Road Traffic Accidents in Thailand.

Thailand Second in the World (behind Libya) for Number of Road Accident Deaths http://www.thaiwebsites.com/caraccidents.asp [19 August 2017]

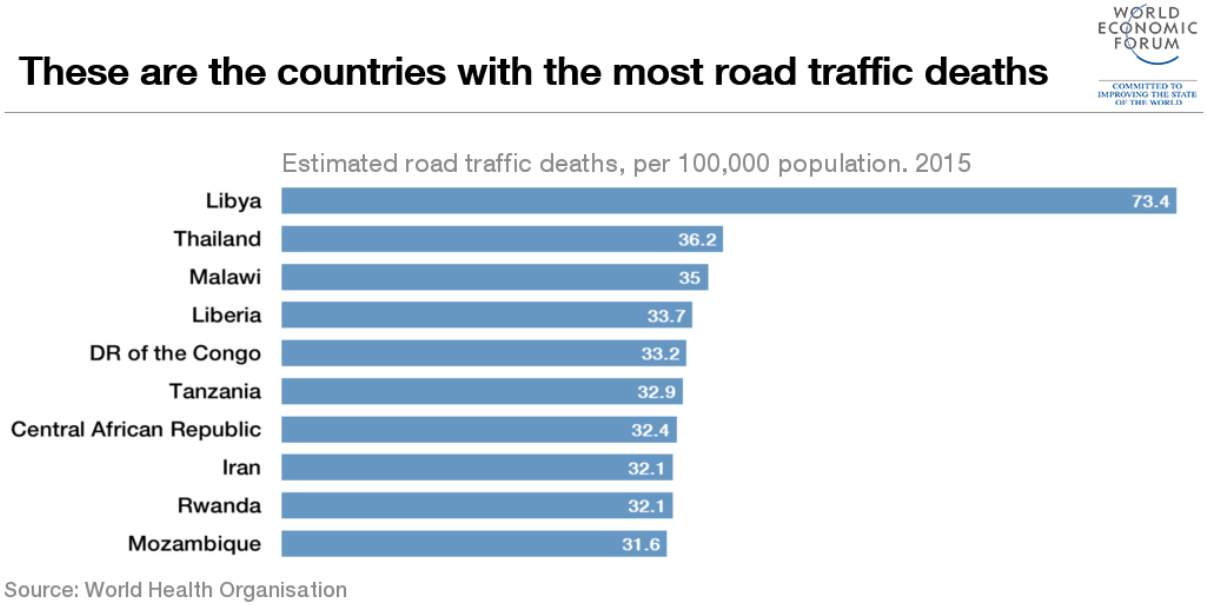


Figure 6 Countries with the most road traffic deaths.

The WHO states that according to the Bureau of Policy and Strategy, Office of Permanent Secretary, Ministry of Public Health of Thailand, there were 14,059 traffic fatalities on the road in Thailand, in 2012 (latest available data). We were not able to find a direct report of these data on the website of the Ministry of Public Health.

Interesting is the number of deaths when categorized by type of road user. The amount of drivers (and passengers) killed on motorcycles (including 3-wheelers, we assume tuktuks) is simply stagering. For a large part, these road users are from the low-income category of people, and one dares to suggest that this is part of the reason not more is done to improve road safety in Thailand. Not shown on this graph : There are about as much accidents in Bangkok as in the rest of Thailand combined. However, the number of deaths and injuries is much lower.

The WHO estimates the number of road traffic deaths in 2013 at 24,237 persons, or a Rate per 100,000 population for 36.2

According to this estimate, Thailand in 2013 ranks SECOND in the WORLD, after Libya, which is in the midst of what can be at least called 'civil unrest'. Though based on data from 3 years ago, this statistic is now invariably mentioned in any article in local newspapers, related to the traffic deaths issue. The number of deaths may be an estimation, but we never noticed it challenged by Thai authorities.

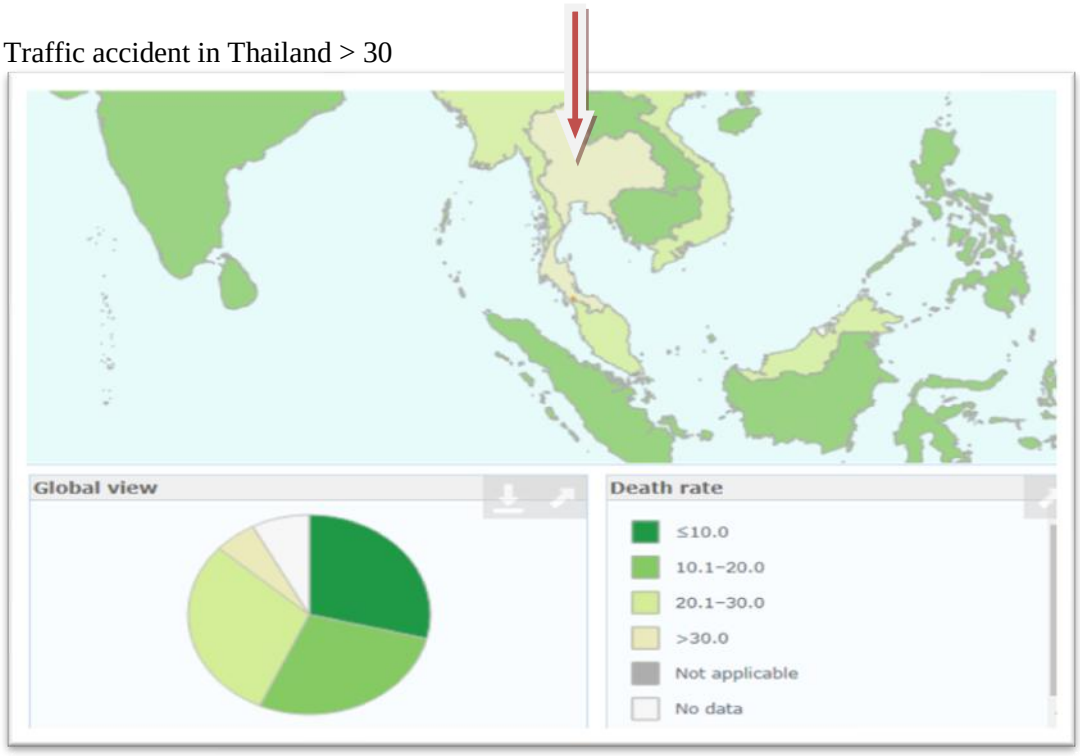
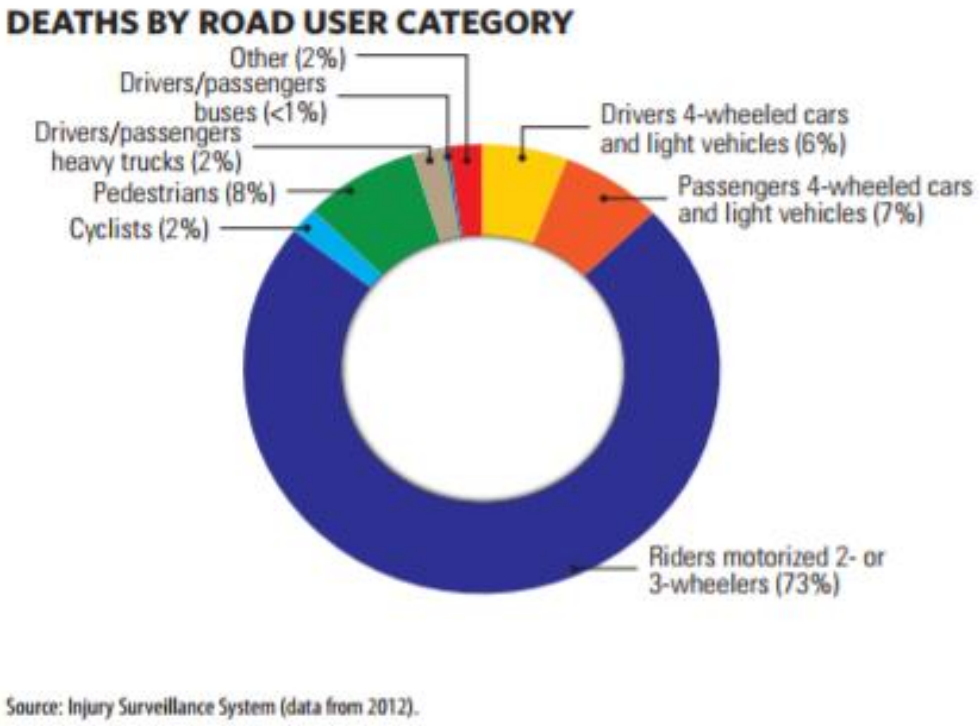


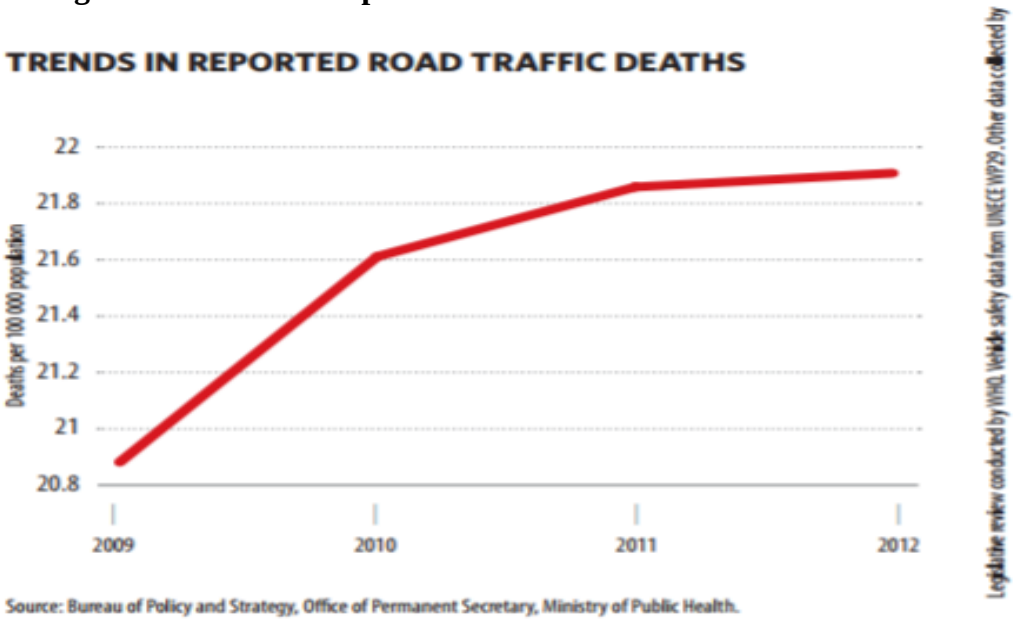
Figure 7 Traffic accident in Thailand
Source : http://www.who.int/gho/road_safety/mortality/ [29 September 2017]

Figure 8 Death by road user categorize



Source: :http://www.who.int/violence_injury_prevention/road_safety_status/2015/[2Sept 2017]

Figure 9 Trends in reported road traffic deaths



Source: :http://www.who.int/violence_injury_prevention/road_safety_status/2015/[2Sept 2017]
The Seven Days around New Year http://www.thaiwebsites.com/caraccidents.asp [19 August 2017]

There are two periods each year when the local media concentrate their attention towards the number of casualties on the road. They are the 'Western' New Year, and the Thai New Year (Songkran). These constitute prolonged holidays. The government always makes sure people get at least 5 days off, so they can visit their relatives (in the provinces). Since many years, daily statistics are published in the newspapers taking stock of the number of accidents and the number of deaths on the road.

This interest by the local press, coincites each time with the government in charge issuing various orders, and making promises that 'this time things will be different', and the number of deaths will be lower than in the previous year. Sometimes, it looks like this promise is fulfilled, but then again, wishful thinking is prevalent, and improvements one year, are followed by disappointment the next.

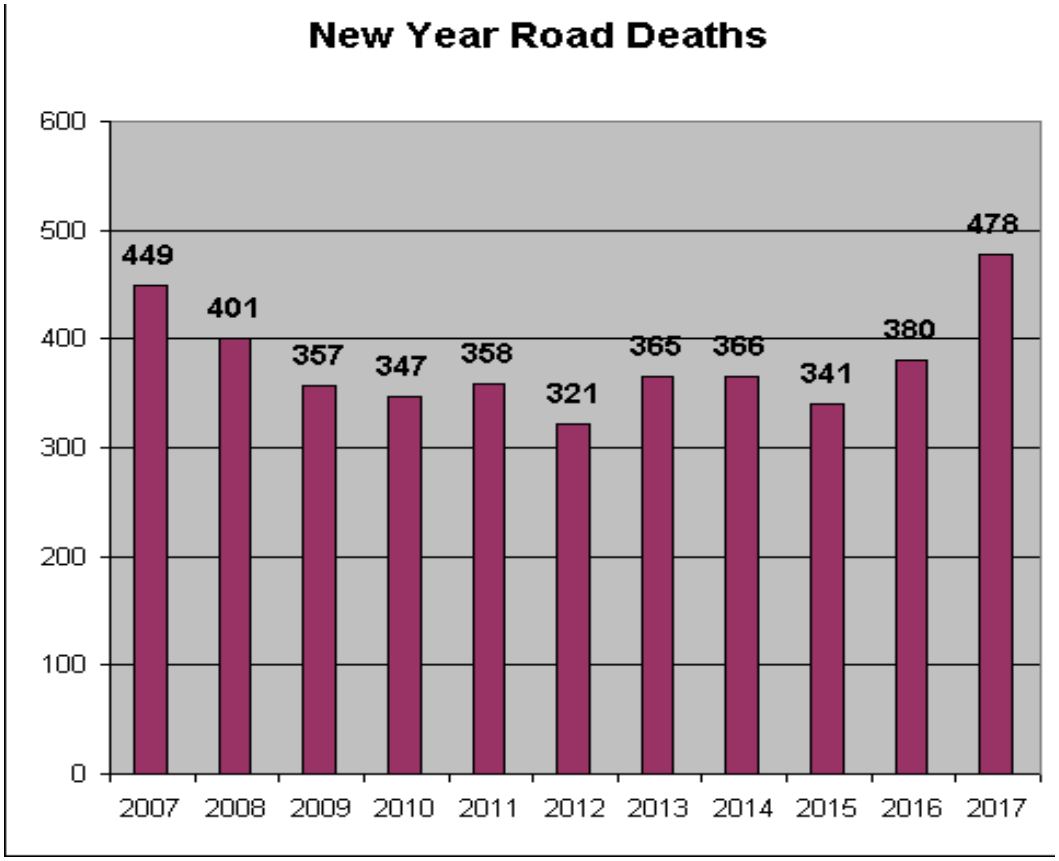


Figure 10 New Year road death in Thailand

Source : http://www.thaiwebsites.com/caraccidents.asp [19 August 2017]

In the period from December 29, 2016 to January 4, 2017 : 478 people got killed by accidents on the roads of Thailand. 4,128 injuries were sustained and 3,919 reported road accidents occurred. This is the highest number of deaths since 2006. From the graph below it looks like there was some improvement between 2009 and 2015, but this year

was a bit of wake-up call. In one horrendous accident between a van and a truck 25 people were killed. [so now the government plans to take vans off the road]

2.4 Old age People

The world's population is ageing: virtually every country in the world is experiencing growth in the number and proportion of older persons in their population. According to data from World Population Prospects: the 2017 Revision, the number of older persons — those aged 60 years or over — is expected to more than double by 2050 and to more than triple by 2100, rising from 962 million globally in 2017 to 2.1 billion in 2050 and 3.1 billion in 2100. Globally, population aged 60 or over is growing faster than all younger age groups.

Globally, population aged 60 or over is growing faster than all younger age groups

In 2017, there are an estimated 962 million people aged 60 or over in the world, comprising 13 per cent of the global population. The population aged 60 or above is growing at a rate of about 3 per cent per year. Currently, Europe has the greatest percentage of population aged 60 or over (25 per cent). Rapid ageing will occur in other parts of the world as well, so that by 2050 all regions of the world except Africa will have nearly a quarter or more of their populations at ages 60 and above. The number of older persons in the world is projected to be 1.4 billion in 2030 and 2.1 billion in 2050, and could rise to 3.1 billion in 2100.

Globally, the number of persons aged 80 or over is projected to triple by 2050, from 137 million in 2017 to 425 million in 2050. By 2100 it is expected to increase to 909 million, nearly seven times its value in 2017.

Table 1 Population aged 60 years or over and aged 80 years or over for the world, Development group region and income group,2000,2015,2030,2050

	Persons aged 60 years or over (millions)				Percentage change		Distribution of older persons (percentage)			
	2000	2015	2030	2050	2000-2015	2015-2030	2000	2015	2030	2050
World	607.1	900.9	1402.4	2092.0	48.4	55.7	100.0	100.0	100.0	100.0
Development groups										
More developed regions	231.3	298.8	375.2	421.4	29.2	25.6	38.1	33.2	26.8	20.1
Less developed regions	375.7	602.1	1027.2	1670.5	60.3	70.6	61.9	66.8	73.2	79.9
Other less developed countries	341.9	550.1	938.7	1484.9	60.9	70.6	56.3	61.1	66.9	71.0
Least developed countries	33.9	52.1	88.5	185.6	53.8	70.0	5.6	5.8	6.3	8.9
Regions										
Africa	42.4	64.4	105.4	220.3	51.9	63.5	7.0	7.2	7.5	10.5
Asia	319.5	508.0	844.5	1293.7	59.0	66.3	52.6	56.4	60.2	61.8
Europe	147.3	176.5	217.2	242.0	19.8	23.1	24.3	19.6	15.5	11.6
Latin America and the Caribbean	42.7	70.9	121.0	200.0	66.1	70.6	7.0	7.9	8.6	9.6
Oceania	4.1	6.5	9.6	13.2	56.2	47.4	0.7	0.7	0.7	0.6
Northern America	51.0	74.6	104.8	122.7	46.4	40.5	8.4	8.3	7.5	5.9
Income groups										
High-income countries	230.8	309.7	408.9	483.1	34.2	32.0	38.0	34.4	29.2	23.1
Upper-middle-income countries	195.2	320.2	544.9	800.6	64.0	70.2	32.1	35.5	38.9	38.3
Lower-middle-income countries	159.7	237.5	393.9	692.5	48.8	65.9	26.3	26.4	28.1	33.1

Figure 11 Population aged 60 and over and aged 80 and over by region

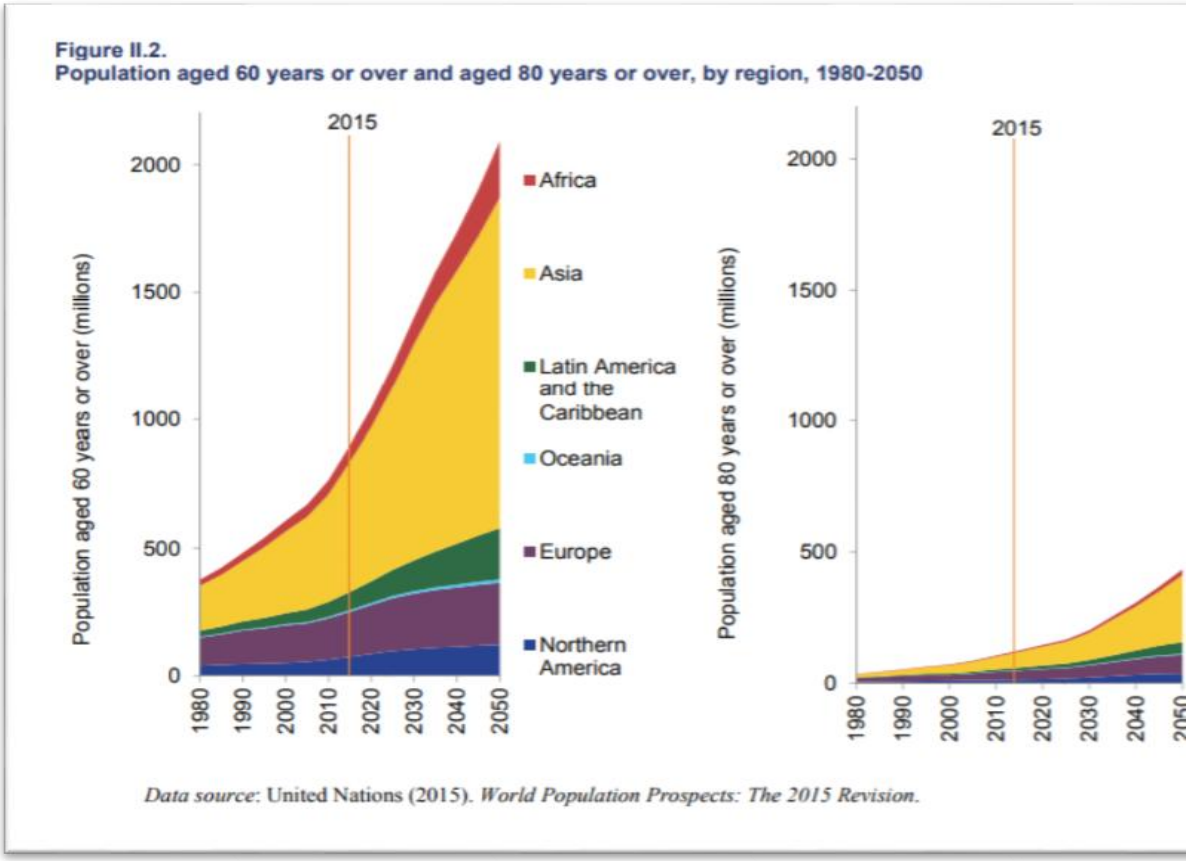


Figure 12 Population aged 60-79 and aged 80 and over by income group.

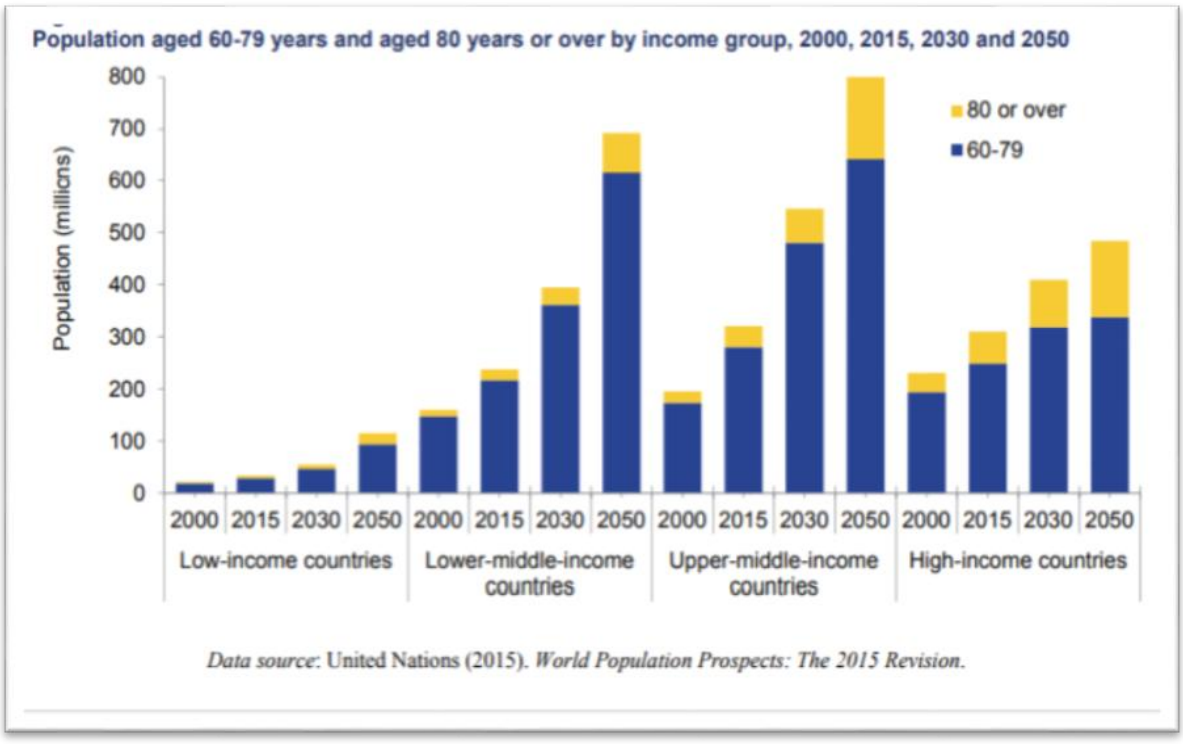


Figure 1.12 Population aged 60-79 and aged 80 and over by income group.

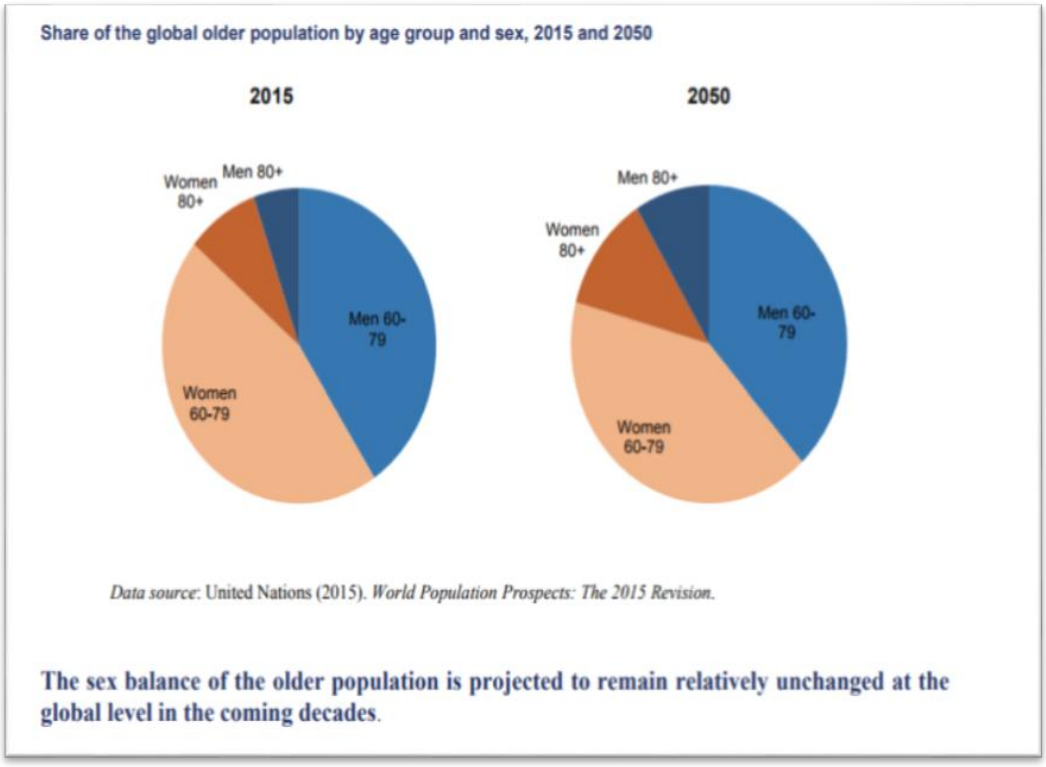


Figure 13 Global older population by age and sex 2015 and 2050

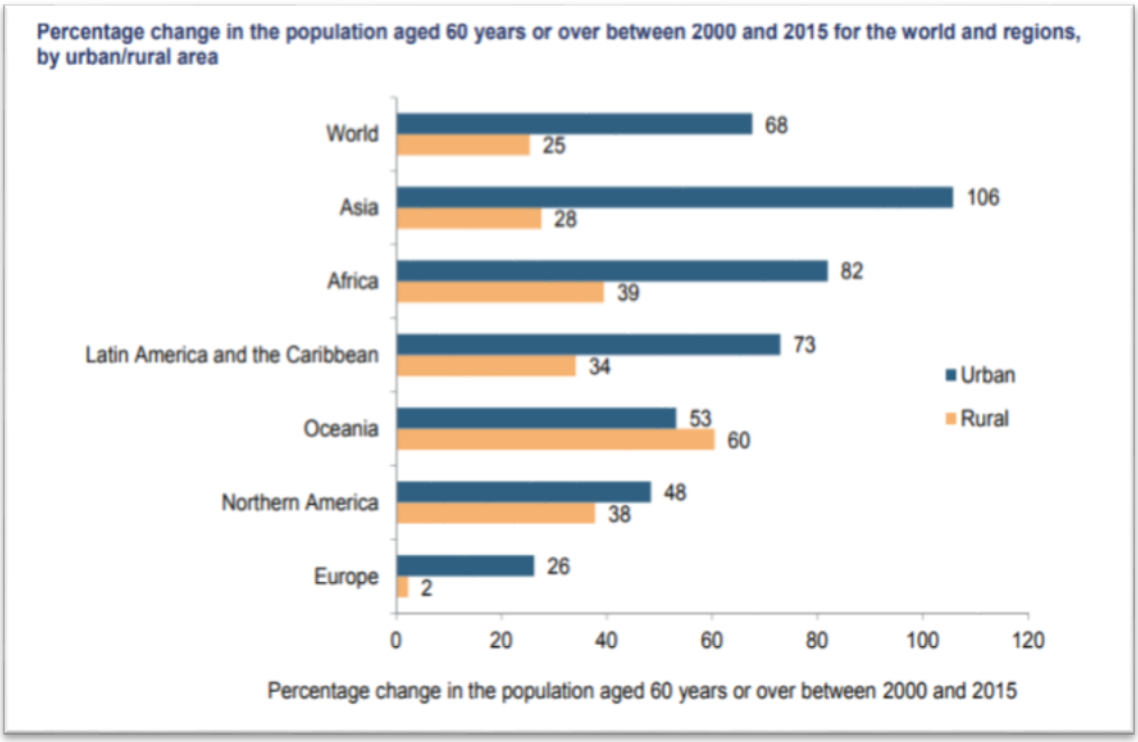


Figure 14 Population age between 2000 and 2015 for world and region in urban and rural area.

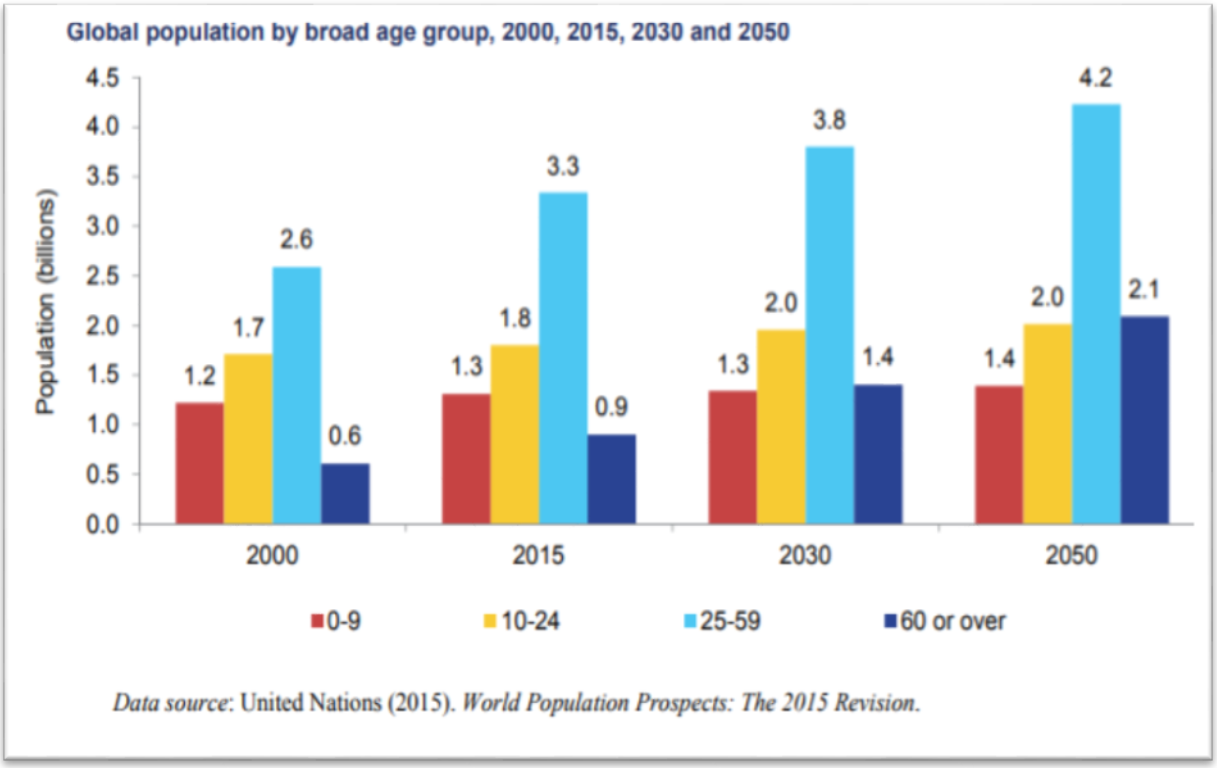


Figure 15 Population age by aged group between 2000, 2015,2030 ,2050

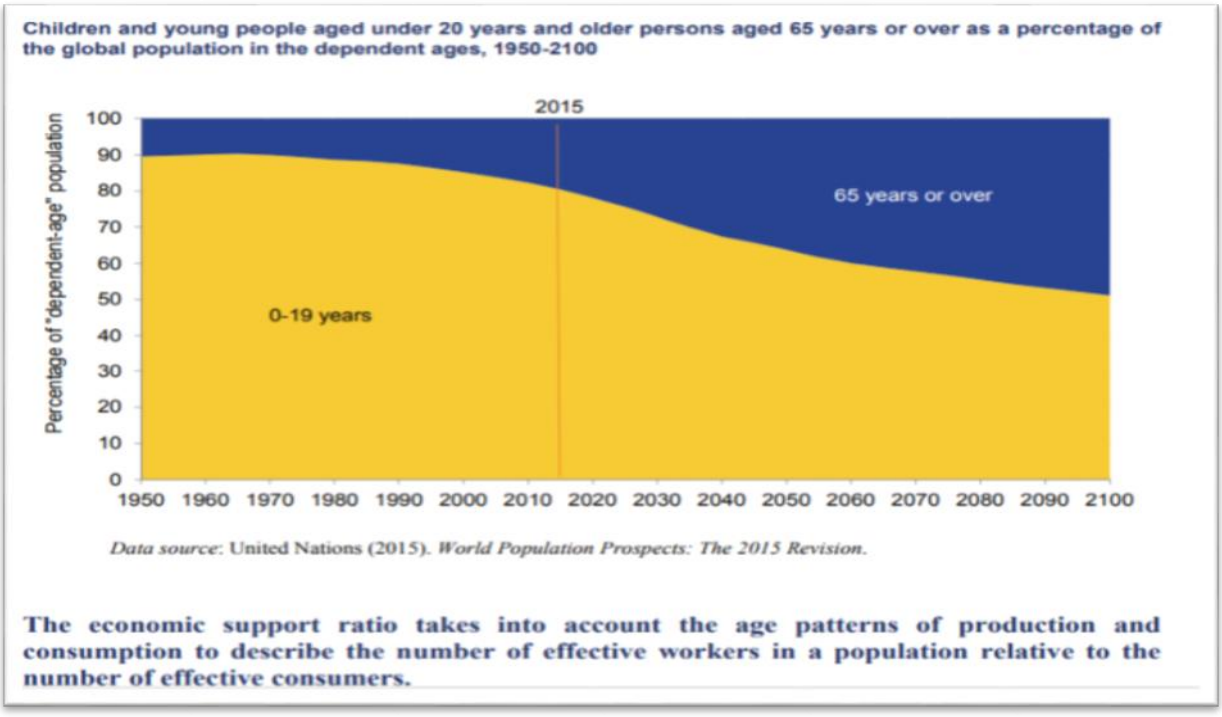


Figure 16 Dependent age between the population 0-19 and . 0ver 65 year group.

2.4.1 Old age people in Thailand

Senior Society: Thailand to be aging society in 10 years

The government recently revealed statistics showing that Thailand will become an aging society in a decade.

The Ministry of Social Development and Human Security revealed that, by that time, people over 60 years old will make up 20 percent of the population while people ages 65 and above will account for 14 percent.

An aging society is one in which the median age is increasing.

Though it sounds grim, an aging population is often related to becoming an advanced society. A larger number of older people means that citizens are living longer and a decline in younger people means that couples are waiting longer to have kids and having fewer of them, a phenomena often related to pursuing education and career before starting a family.

In light of the aging population, the Thai government is trying to provide more and better services to seniors including: more access to healthcare, jobs for able-bodied seniors, and continued education to keep older minds active during their golden years, reported Thai News Bureau.

Secretary-General to the Office of the Education Council Kamol Rodklai said the 20-year national education plan clearly states that people of all ages, including the elderly, are entitled to education. The plan focuses on encouraging Thais to be good citizens and to learn skills that are essential to 21st Century careers through various educational platforms.

Healthy seniors can learn and use their skills to make a living, even after they reach the age of retirement. The government wants the elderly to lead meaningful lives. With their considerable experience, senior citizens can also inspire and educate younger generations to make positive contributions to the country.

(https://coconuts.co/bangkok/news/senior-society-thailand-aging-society-10-years/)

Population ageing in Thailand
1. Demographic Trends of Population Ageing

During the past several decades, Thailand has been one of the most successful countries in bringing down its fertility level within a short period of time. The total fertility rate has declined from over 6 births per woman in the mid 1960s to below 2 in the mid-1990s (Table 1). During the same period, life expectancy at birth increased from 55.2 years to 69.9 years for men and 61.8 years to 74.9 years for women. In the coming decades, besides the lowering of the growth rate, a major demographic consequence of this rapid fertility reduction will be an inevitable ageing of the population. Even more dramatic

will be the rapid increase in the absolute size of the older population (aged 60 and over), a result of past high fertility levels and substantial declines of mortality.

2.4.2 Old age people and drive

In 2015, there were more than 40 million licensed drivers ages 65 and older in the United States.[1] Driving helps older adults stay mobile and independent. But the risk of being injured or killed in a motor vehicle crash increases as you age. Thankfully, there are steps that older adults can take to stay safer on the roads.[https://www.cdc.gov/motorvehiclesafety/older_adult_drivers/index.html, 1 September 2017]

How big is the problem?

- In 2014, more than 5,700 older adults were killed and more than 236,000 were treated in emergency departments for motor vehicle crash injuries. This amounts to 16 older adults killed and 648 injured in crashes on average every day.[2,3]
- There were more than 40 million licensed older drivers in 2015, which is a 50 percent increase from 1999.

Highway Statistics 2015

Distribution of Licensed Drivers - 2015 By Sex and Percentage in each Age Group and Relation to Population

Federal Highway Administration, Department of Transportation (US). Highway Statistics 2015. Washington (DC): FHWA; September 2016.[cited 2016 Dec 21]. Available from URL: https://www.fhwa.dot.gov/policyinformation/statistics/2015/dl20.cfm [1September 2017]

Table 2 Distribution of Licensed Drivers - 2015 By Sex and Percentage in each Age Group and Relation to Population

	MALE DRIVERS			FEMALE DRIVERS			TOTAL DRIVERS		
	NUMBER	PERCENT OF TOTAL DRIVERS	DRIVERS AS PERCENT OF AGE GROUP 1/	NUMBER	PERCENT OF TOTAL DRIVERS	DRIVERS AS PERCENT OF AGE GROUP 1/	NUMBER	PERCENT OF TOTAL DRIVERS	DRIVERS AS PERCENT OF AGE GROUP 1/
UNDER 16	32,495	0.0	1.5	32,620	0.0	1.6	65,115	0.0	1.5
16	527,382	0.5	24.7	537,502	0.5	26.3	1,064,884	0.5	25.4
17	966,677	0.9	45.1	953,781	0.9	46.5	1,920,458	0.9	45.8
18	1,304,619	1.2	60.5	1,245,801	1.1	60.4	2,550,420	1.2	60.5

	MALE DRIVERS			FEMALE DRIVERS			TOTAL DRIVERS		
	NUMBER	PERCENT OF TOTAL DRIVERS	DRIVERS AS PERCENT OF AGE GROUP 1/	NUMBER	PERCENT OF TOTAL DRIVERS	DRIVERS AS PERCENT OF AGE GROUP 1/	NUMBER	PERCENT OF TOTAL DRIVERS	DRIVERS AS PERCENT OF AGE GROUP 1/
19	1,530,017	1.4	70.0	1,459,755	1.3	70.2	2,989,772	1.4	70.1
(19 AND UNDER)	4,361,190	4.1	40.4	4,229,459	3.8	41.0	8,590,649	3.9	40.7
20	1,645,437	1.5	73.4	1,578,873	1.4	74.4	3,224,310	1.5	73.9
21	1,707,768	1.6	74.6	1,660,552	1.5	76.6	3,368,320	1.5	75.6
22	1,791,158	1.7	76.8	1,740,421	1.6	79.2	3,531,579	1.6	78.0
23	1,857,286	1.7	77.8	1,831,076	1.7	80.9	3,688,362	1.7	79.3
24	1,912,171	1.8	79.1	1,905,706	1.7	82.2	3,817,877	1.8	80.6
(20-24)	8,913,820	8.3	76.4	8,716,628	7.9	78.7	17,630,448	8.1	77.5
25-29	9,599,910	8.9	84.1	9,665,917	8.8	87.5	19,265,827	8.8	85.8
30-34	9,483,821	8.8	87.1	9,635,915	8.7	89.3	19,119,736	8.8	88.2
35-39	8,948,342	8.3	88.0	9,139,345	8.3	89.6	18,087,687	8.3	88.8
40-44	8,976,495	8.3	89.5	9,130,641	8.3	89.6	18,107,136	8.3	89.6
45-49	9,439,868	8.8	91.3	9,547,861	8.6	90.8	18,987,729	8.7	91.1
50-54	10,129,724	9.4	92.4	10,358,348	9.4	91.1	20,488,072	9.4	91.7
55-59	9,858,801	9.2	93.0	10,209,251	9.2	91.1	20,068,052	9.2	92.0
60-64	8,621,325	8.0	94.6	9,025,845	8.2	90.7	17,647,170	8.1	92.5
65-69	7,217,544	6.7	95.0	7,570,860	6.9	89.4	14,788,404	6.8	92.0
70-74	4,974,735	4.6	93.9	5,257,499	4.8	85.0	10,232,234	4.7	89.1
75-79	3,267,202	3.0	90.5	3,566,555	3.2	79.0	6,833,757	3.1	84.1
80-84	2,157,345	2.0	89.4	2,364,088	2.1	69.8	4,521,433	2.1	78.0
85 AND OVER	1,699,564	1.6	94.4	2,016,567	1.8	57.1	3,716,131	1.7	69.7
TOTAL	107,649,686	100.0	85.0	110,434,779	100.0	83.2	218,084,465	100.0	84.1

These percentages are computed using population estimates of the Bureau of the Census. Under-16 age group is compared to 14 and 15-year-old population estimates; the other age brackets coincide with those from the Bureau of the Census.

Figure 17 Driver kill in road accident in the year 2011

2.5 **Health Literacy**

Health literacy as a public health goal, a challenge for contemporary health education and communication strategic in to 21st century, (Nutbeam, D 2008) access health information, which is an effective way to improve population health and decreasing of disease, mortality and morbidity rate lead to good health status as well as good quality of life

Health Literacy has been defined as the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health. Health Literacy means more than being able to read pamphlets and successfully make appointments. By

improving people's access to health information and their capacity to use it effectively, health literacy is critical to empowerment.

- Defined this way, Health Literacy goes beyond a narrow concept of health education and individual behaviour-oriented communication, and addresses the environmental, political and social factors that determine health. Health education, in this more comprehensive understanding, aims to influence not only individual lifestyle decisions, but also raises awareness of the determinants of health, and encourages individual and collective actions which may lead to a modification of these determinants. Health education is achieved therefore, through methods that go beyond information diffusion and entail interaction, participation and critical analysis. Such health education leads to health literacy, leading to personal and social benefit, such as by enabling effective community action, and by contributing to the development of social capital.
- This approach also recognizes the issue of power and how power relations affect access to information and its use, as has been seen in the case of promoting women's sexual and reproductive health. Health Literacy promotes empowerment, which in turn is vital for achieving the internationally agreed health and development goals as well as the emerging threats such as from the pandemic influenza, climate change and non-communicable diseases.
- This track will closely examine the issues involved in achieving health literacy in this comprehensive sense, and identify strategic actions needed to lead the way forward. It will examine the role of other sectors in contributing to health literacy, and consider advocacy with and strategic alliances with the education sector - and at all levels, international, national and local - to achieve this. Recognizing that health literacy requires more than the transmission of information, it will explore the latest developments in participatory approaches to determine how people can develop the skills, knowledge and efficacy to act on that knowledge in order to maintain good health. It will reveal how such actions are needed in developed as well low- and middle-income countries.

Health Literacy Capacity and Skills

Capacity is the potential a person has to do or accomplish something. Health literacy skills are those people use to realize their potential in health situations. They apply these skills either to make sense of health information and services or provide health information and services to others.

Anyone who needs health information and services also needs health literacy skills to

- Find information and services
- Communicate their needs and preferences and respond to information and services
- Process the meaning and usefulness of the information and services
- Understand the choices, consequences and context of the information and services
- Decide which information and services match their needs and preferences so they can act

Anyone who provides health information and services to others, such as a doctor, nurse, dentist, pharmacist, or public health worker, also needs health literacy skills to

- Help people find information and services
- Communicate about health and healthcare
- Process what people are explicitly and implicitly asking for
- Understand how to provide useful information and services
- Decide which information and services work best for different situations and people so they can act

Health Literacy Affects Everyone

Health literacy is important for everyone because, at some point in our lives, we all need to be able to find, understand, and use health information and services.

Taking care of our health is part of everyday life, not just when we visit a doctor, clinic, or hospital. Health literacy can help us prevent health problems and protect our health, as well as better manage those problems and unexpected situations that happen.

Even people who read well and are comfortable using numbers can face health literacy issues when

- They aren't familiar with medical terms or how their bodies work.
- They have to interpret statistics and evaluate risks and benefits that affect their health and safety.
- They are diagnosed with a serious illness and are scared and confused.
- They have health conditions that require complicated self-care.
- They are voting on an issue affecting the community's health and relying on unfamiliar technical information.

Why Do We Have a Health Literacy Problem in the U.S. and Many Other Countries?

When organizations or people create and give others health information that is too difficult for them to understand, we create a health literacy problem. When we expect them to figure out health services with many unfamiliar, confusing or even conflicting steps, we also create a health literacy problem.

How Can We Help People Now?

We can help people use the health literacy skills they have. How? We can

- create and provide information and services people can understand and use most effectively with the skills they have. See Develop and Test Materials.
- work with educators and others to help people become more familiar with health information and services and build their health literacy skills over time. See Collaborate.

- build our own skills as communicators of health information. See Find Training for free, online options.

Limited Health Literacy Reports and Evidence

People need information they can understand and use to make the best decisions for their health. “Limited health literacy” happens when people’s literacy and numeracy skills are poorly matched with the technical, complex, and unfamiliar information that organizations make available or health services are too complex and difficult to understand and use effectively.

Several reports document that limited health literacy affects many types of health conditions, diseases, situations, and outcomes, including health status and costs.
Choosing a healthy lifestyle, knowing how to seek medical care, and taking advantage of preventive measures require that people understand and use health information. The ability to obtain, process, and understand health information needed to make informed health decisions is known as health literacy. Given the complexity of the healthcare system, it is not surprising that limited health literacy is associated with poor health. This fact sheet summarizes key research study findings on the relationship between health literacy and health outcomes.

Why is Health Literacy important ? The people who have Health Literacy can Access health information, safety behavior ,quality of life lead to : good Health status ..decreasing of disease..mortality and morbidity rate.
There are 3 Levels of Health Literacy

1. Functional Health literacy .Listening speaking, reading, writing …basic..(medical label, consent form)
2. Communicative/interactive Health literacy ..social skill..apply for lifestyle improvement.
3. Critical Health literacy ..cognitive skill, adjustment, critique, ..individual action..for social development

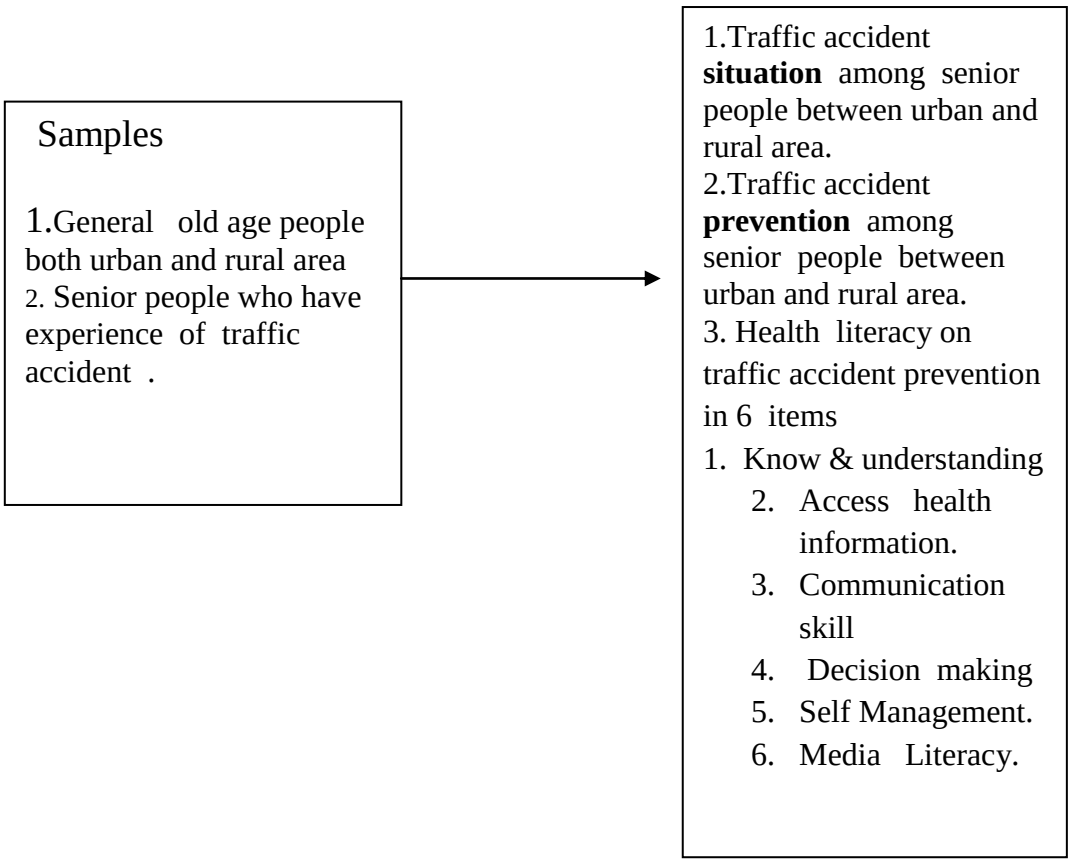
Health Literacy Strategic Development.

1. Create Shame free environment/experiences
2. Improvement of interpersonal communication : encourage
3. Media development for easy understanding and friendly…..Attractive multimedia…face book, line, VTR..
4. Learning process technique : individual , group.
5. Empowerment Increasing…Self efficacy perception, self esteem, self confident.

Health Literacy skill. There are 6 components of health literacy such as

1. Know & understanding
2. Access health information..social media etc
3. Communication skill
4. Decision making :..selection ..consideration
5. Self Management. Set target ..planning
6. Media Literacy… adjustment

2.6 Conceptual Framework



CHAPTER 3 RESEARCH METHODOLOGY

This descriptive research, research design was mix method both qualitative and quantitative data.
Population and samples 1. 500 general senior people in 2 provinces, in the Northeastern Thailand study both each urban and rural area . (1 large province and 1 small province) 2. Senior people who have experience of traffic accident.

This chapter contains following detailed topics.
3.1 Research design
3,2 Population and sample
3.3 Research Procedure
3.4 Research Tools
3.5 Data analysis
3.6 Research Useful.
3.7 Expect Outcome

3.1 Research Design : This is descriptive research , mix method design study both Qualitative and Quantitative data.
Steps of study
There are 5 steps of research. :
1.Select 5 provinces from 20 provinces in the northeastern Thailand and then select district and sub district.
2. Approach to old age people in community both urban and rural area.
3. Situation analysis real problem study and planning for traffic accident prevention problem of old age people by using AIC technique (Appreciate Influence Control)
4.Research tools conduction for data collection both for qualitative and quantitative data.
5. Data collection both qualitative and quantitative data by interviewing .
6.Data analysis for comparison between urban and rural area.
7. Summarize and full paper complete including publication.

3.2 Population and samples Old age people who were more than 65 year old.
Limitation: Study 2 provinces namely Khon Kaen Provinces, and Buengkarn province in the Northeast of Thailand. Total of general old age people person. Old age people with traffic accident person.

3.3 Research Procedure.

Descriptive research study both quantitative data and qualitative data.

Quantitative data.
Quantitative data collected by using questionnaire which conducted by researchers and interview from two group of old age people such as 1). general old age and 2).old age people with experience of traffic accident.

Qualitative data.
Qualitative data collected by using In-depth interview, take picture

3.4 Research Tools

The research tools were two questionnaires for quantitative data and guideline interview for In-depth interview Including camera for taking photo in real situation.

3.5 Data analysis

Quantitative data.
Bring information to the correctness, put them into code and analyze with computer by using the statistical package SPSS program for descriptive statistic by using frequency distribution, percentage, mean standard deviation

Qualitative data.

Qualitative data using content analysis for categorizing and theme.

3.6 Research Useful.
1.Know situation of traffic accident among old age between urban and rural area.
2. know risk of traffic accident of old age people in Northeastern Thailand
3. Receive guideline for set the regulation for increasing traffic accident prevention activities among old age people.

3.7 Expect Outcome
1.Situation of traffic accident among old age and how to solving the problem..
2.Reduction of mortality and disability from traffic accident of old age people

CHAPTER 4 RESULTS AND DISCUSSION

The results of this descriptive study were base on the response of 728general senior people and 208 senior people with traffic accident. The result will be present in 3 parts, firstly quantitative part of general senior people secondly was old age people with traffic accident and thirdly qualitative data.

Part 1. Quantitative data from general senior people

1. General characteristics of general old age people .
   1.1 Health literacy
   1.2 . The Cognitive skill in preventing traffic accident.

Part 2. Quantitative part of senior people with traffic accident

1. General characteristics of senior people who have experience of traffic accident.

Part 3 Qualitative data from old age people with traffic accident.

4.1 Part 1. Quantitative data from general senior people.

The results of this descriptive study were base on the response of 728 general old age people, 208 old age people who have experience of traffic accident and 147 of in-depth interview. Descriptive research study both qualitative and qualitative data. Study in Khon Kaen Province, and Buengkarn Province Thailand. Data were collected by questionnaire for quantitative data meanwhile qualitative data using in-depth interview, and observation. Content analysis for qualitative data and descriptive statistics for quantitative data. The results could summarize as follow.

1. General characteristics of general old age people .

The total sample size consists of general old age people 728 samples in Khon Kaen and Buengkarn province They live in municipal or urban area 485 samples and live in rural area 243 samples. Most of them were male 298 (61.44)in urban area and 136(55.97%) in rural area had age group of 65-70 years old (59.18%)in urban area and 70 years old 123 samples (50.62%) in rural area. Most of them were marital status 369 (76.08%)in urban area and 144(59.26%) in rural area, and education both in primary school 404 (83.30) in urban area and 174(71.60%) in rural area. Most no occupation 288 (59.38%) in urban area and 98 (40.33%) in rural area, Most of them were healthy both 143 (29.48%) in urban area and 91(37.45) in urban area .Income less than5,000bt (166 USD) Per month both. 376 (77.53) in urban area and 139 (57.20%) in rural area. Treatment privilege both were golden card424 (87.42) in urban area and 198 (81.48%) in rural area. The distant from home to health station both less than 5 km. 349(71.96%) in urban area and 106 (43.62%) in rural area. Ordinary transportation were pedestrian 144(29.69) subsequent was motorcycle and bicycle 142(29.28%) and 95 (19.59%) in

urban area and Motorcycle most 103(42.39%)subsequent by car and bicycle 71 (29.22%) and 25 (10.29%) in rural area.

2. The Cognitive skill in preventing traffic accident.

Most of cognitive skill in preventing traffic were in good level. Access to health information for traffic accident prevention was in good level (mean 13.95). Communication skill was good level also(14.05)Decision making skill was in good level (mean14.79) self management skill was in good level (17.46in urban area) and 17.64 in rural area. Media literacy skill was in middle level both in urban and rural area (mean=11.50 and 11.89) practical skill were in good level both urban and rural area (29.46and 30.09) as table

Health care intelligence matters from traffic accident prevention of the elderly during the urban and rural communities.

The table 3 personal data classified by seniors living in municipalities and county councils, the outside (n = 728).

The personal data.	**In the municipal area (n=485)**		**Outside the municipal area (n=243)**	
	Number	**percent**	**Number**	**percent**
Sex				
Male	187	38.56	107	44.03
Female	298	61.44	136	55.97
Age **(**years**)**				
60-70 years	287	59.18	120	49.38
> 70 years	198	40.82	123	50.62
Mean(SD)	71.09(5.97)		71.81(6.46)	
Median (Min:Max)	70(60:92)		71(63:98)	
Marital status				
Married	369	76.08	144	59.26
Widowed (spouses died.)	84	17.32	75	30.86
Divorce	16	3.30	10	4.12
Single	15	3.09	14	5.76
Other	1	0.21	0	0.00

Education				
No education	33	6.80	30	12.35
Primary school	404	83.30	174	71.60
Junior High school	33	6.80	26	10.70
Diploma	5	1.03	4	1.65
Bachelor degree	10	2.06	9	3.70

The table 3 personal data classified by seniors living in municipalities and county councils, the outside (n = 728). (cont.)

The personal data.	In the municipal area (n=485)		Outside the municipal area (n=243)	
	Number	percent	Number	percent
Occupation				
No occupation	288	59.38	98	40.33
Agriculture	89	18.35	88	36.21
Subcontracts	44	9.07	34	13.99
Commercial	52	10.72	22	9.05
Other	12	2.47	1	0.41
Illness				
Health	143	29.48	91	37.45
Diabetes Mellitus	76	15.67	58	23.87
Hypertension	98	20.21	45	18.52
Heart Disease	16	3.30	11	4.53
Hypertension & Diabetes Mellitus	124	25.57	32	13.17
Other	28	5.77	6	2.47
Income per month /family				
< 5,000 baht	376	77.53	139	57.20
5,000-10,000 baht	74	15.26	70	28.81
> 10,000 baht	35	7.22	34	13.99
Treatment Privilege				
No	6	1.24	0	0.00
Golden card	424	87.42	198	81.48
Government official	44	9.07	35	14.40
Self Payment	3	0.62	1	0.41
Social Insurance	6	1.24	7	2.88
Other	2	0.41	2	0.82

The table 3 personal data classified by seniors living in municipalities and county councils, the outside (n = 728).(cont.)

The personal data.	In the municipal area (n=485)		Outside the municipal area (n=243)	
	Number	percent	Number	percent
The distance from home to infirmary. (Health station / The hospital)				
< 5 kilometres	349	71.96	106	43.62
5 – 10 kilometres	97	20.00	98	40.33
11 – 15 kilometres	38	7.84	20	8.23
> 15 kilometres	1	0.21	19	7.82
Transportation for ordinary using				
Pedestrian	144	29.69	20	8.23
Bicycle	95	19.59	25	10.29
Motorcycle	142	29.28	103	42.39
Car	79	16.29	71	29.22
Bus	18	3.71	21	8.64
Other	7	1.44	3	1.23

The table 4 cognitive skills in preventing accidents from text list of traffic classified by seniors living in municipalities and county councils, the outside (n = 728).

Cognitive skills in preventing accidents from traffic.	In the municipal area (n=485)		Outside the municipal area (n=243)	
	Number	percent	Number	percent
1. Traffic accident is preventable.				
Yes	455	93.81	239	98.35
No	30	6.19	4	1.65
2. The traffic accident which injury and disability				
Yes	482	99.38	241	99.18
No	3	0.62	2	0.82
3. Traffic accidents cause burden per family.				
Yes	475	97.94	241	99.18
No	10	2.06	2	0.82
4. Traffic accident is the subject of the Sun or the evil creature that has no defense.				
Yes	247	50.93	81	33.33
No	238	49.07	162	66.67
5. To respect the traffic rules strictly are not accidents.				
Yes	429	88.45	205	84.36
No	56	11.55	38	15.64
6. Seniors need to use more caution. If driving				
Yes	480	98.97	243	100.00
No	5	1.03	0	0.00

The table 4 cognitive skills in preventing accidents from text list of traffic classified by seniors living in municipalities and county councils, the outside (n = 728). (Cont)

Cognitive skills in preventing accidents from traffic.	In the municipal area (n=485)		Outside the municipal area (n=243)	
	Number	percent	Number	percent
7. The elderly are at risk because of bad eye, ear. Negatively affect the decision error.				
Yes	481	99.18	241	99.18
No	4	0.82	2	0.82
8. Driving a car by a lack of caution may cause danger to people.				
Yes	471	97.11	241	99.18
No	14	2.89	2	0.82
9. Driving safe should set the speed does not exceed 80 kilometers per hour.				
Yes	474	97.73	239	98.35
No	11	2.27	4	1.65
10. Rough roads, it makes it dangerous.				
Yes	463	95.46	243	100.00
No	22	4.54	0	0.00
11. The old car, it can be dangerous.				
Yes	430	88.66	193	79.42
No	55	11.34	50	20.58
12. The environment is not good, such as a flood. The rain, it makes it dangerous.				
Yes	469	96.70	242	99.59
No	16	3.30	1	0.41

Table 4 the cognitive skills to prevent accidents as traffic in an overview of the elderly people by living in a municipality and outside the municipal zone (n = 728). (Cont.)

Cognitive skills in preventing accidents from traffic.	The inhabited zones.	
	In the municipal area (n=485)	Outside the municipal area (n=243)
Mean(SD)	11.02(0.95)	11.23(0.78)
Median (Min: Max)	11(7:12)	11(8:12)

Table at 5 skills and access to information about health services, prevention of accidents from traffic classified by seniors living in municipalities and county councils, the outside (n = 728).

Access to information and skills about health services, protection from traffic accidents.	Urban area (n=485)		Rural area (n=243)	
	Mean	SD	Mean	SD
1. you can search. For immediate inquiries regarding traffic accident occurrence statistics and data protection.	2.22	0.62	2.32	0.72
2. you find teaching materials to prevent traffic accidents as always.	2.20	0.62	2.33	0.68
3. you can find information on safety in traffic that are beneficial to both the subject vehicle. Road safe directions	2.30	0.63	2.31	0.73
4. If you have symptoms of illness from traffic you can receive medical treatment at hospitals close to home.	2.66	0.50	2.67	0.49
5. you have to check the information about traffic accidents from protection from multiple sources to confirm its authenticity.	2.28	0.63	2.29	0.72
6. you have to check the information about protecting yourself from traffic accidents, to provide accurate information.	2.28	0.59	2.28	0.72
The total score	13.95	2.75	14.22	3.36

Table 6 The communication skills to promote accident prevention in the elderly people by living in a municipality and the municipal zone (n = 728).

Communication skills to promote the practice in preventing accidents from traffic.	**Urban area (n= 485)**		**Rural area (n=243)**	
	Mean	**SD**	**Mean**	**SD**
1. you have read the story in the prevention of traffic accidents from and then find that it rarely understand the content often.	1.59	0.59	1.56	0.60
2. you have stories or talking about accident prevention in traffic with your family or other people to understand how often	2.46	0.53	2.43	0.55
3. you have to convince someone to accept the correct data, or recommend treatment in preventing accidents from traffic.	2.52	0.59	2.44	0.57
4.you can communicate. Explain the perceived channel news about accident prevention in practice from the traffic to someone else often understood.	2.42	0.60	2.37	0.62
5. you can also get help from another person to read information about accident prevention in traffic from various media.	2.51	0.55	2.44	0.60
6.you listen to advice and practical information to prevent accidents as traffic from people.	2.54	0.52	2.46	0.56
The total score.	14.05	1.87	13.70	2.07

Table at 7 skills to decide on the appropriate action to prevent disasters from the traffic of the elderly people by living in a municipality and the municipal zone (n = 728).

Decision making skills in practice to prevent disasters from traffic.	**Urban area (n=485)**		**Rural area (n=243)**	
	Mean	**SD**	**Mean**	**SD**
1. If you have unusual symptoms about eyes and ears you will cancel the driving.	2.74	1.08	2.76	0.46
2. If a person in your family to solicit you for driving license test?	1.92	0.79	2.27	0.71
3. you are introducing someone in practice to prevent disasters from traffic.	2.47	0.57	2.44	0.56
4. you will be asked when driving with children of various missions.	2.56	0.56	2.60	0.59
5. you have to develop and strengthen skills in order to prevent accidents from driving traffic.	2.51	1.50	2.44	0.62
6. would you be glad if health officials come into training on safety in traffic. You can participate in the activity.	2.58	0.58	2.59	0.58
The total score.	14.79	2.90	15.11	2.19

The table 8 self management skills to prevent accidents from the traffic of the elderly people by living in a municipality and the municipal zone (n = 728).

Self management skills to prevent accidents from traffic.	**Urban area (n=485)**		**Rural area (n=243)**	
	Mean	**SD**	**Mean**	**SD**
1. you have to assess or observe the driving skills for their own safety, always.	2.67	0.56	2.60	0.63
2. you must have a driver's license, so be brave driving.	2.12	0.80	2.40	0.68
3. you can behave according to traffic rules correctly.	2.49	0.62	2.56	0.58
4. When you ride If there are no police, he was not driving fast is overdue.	2.49	0.67	2.59	0.63
5. you will study the route before.	2.47	0.63	2.34	0.64
6. you can use reason to analyze the advantages and disadvantages in the use of the car using the road.	2.62	0.53	2.59	0.56
7. people and someone in your family, you have to talk and warned the car safety always use.	2.59	0.53	2.57	0.54
The total score.	17.46	2.91	17.64	3.05

The table 9 skills literacy regarding the prevention of traffic accidents from elderly people classified as living in a municipality and the municipal zone (n = 728).

Media literacy skills on how to prevent accidents from traffic.	**Urban area (n=485)**		**Rural area (n=243)**	
	Mean	**SD**	**Mean**	**SD**
1. When you are interested in information about protection from traffic accidents as people get more information according to different sources.	2.23	0.70	2.30	0.78
2. you can use any phone inquiries about traffic accidents from various sources correctly.	1.93	0.76	2.23	2.15
3. you can exchange knowledge and ways of protection from traffic accidents with someone in your family or others.	2.44	0.56	2.46	0.56
4. your use of reason to believe the information before making a decision about the accident from the traffic from various media.	2.43	0.55	2.43	0.58
5. you will have the analysis evaluated the content about the accident from the traffic by not believing in an instant. Often	2.47	0.56	2.46	0.58
The total score.	11.50	2.28	11.89	3.44

The table that 10 practical skills in prevention of traffic accidents from elderly people classified as living in a municipality and the municipal zone (n = 728).

Practical skills in preventing accidents from traffic.	**Urban area (n=485)**		**Rural area (n=243)**	
	Mean	**SD**	**Mean**	**SD**
1. before crossing the road. Looking left and right.	2.92	0.26	2.95	0.22
2. If the car seat you'll always seat belt.	2.82	0.42	2.82	0.45
3. If driving a motorbike, you will always wear a helmet.	2.41	0.62	2.46	0.62
4. If driving rot otnap require the support speeds up to 80 kilometers per hour.	2.67	0.53	2.68	0.56
5. a car to wait for the car park, a close first.	2.87	0.36	2.87	0.35
6. If the night journey. You are clothed in white or light color on a road trip.	2.43	0.68	2.58	0.67
7. you teach or recommend that children, regardless of their safety in traffic.	2.87	0.37	2.86	0.37
8. a person action as in the road traffic accident prevention.	2.76	0.45	2.84	0.40
9. you join forces in preventing traffic accidents	2.55	0.69	2.70	0.58
10. taking into consideration respect for traffic rules	2.76	0.45	2.84	0.39
11. to help when they encounter an accident. People will call, 1669.	2.38	0.76	2.48	0.73
The total score.	29.46	3.36	30.09	2.93

Table 11 compares the average of the different skills about health intelligence matters from traffic accident prevention of the elderly group living in the municipalities and groups living outside the municipal area (n = 728).

Health literacy for traffic accident prevention.	n	Mean	SD	Mean difference	t	95%CI	p-value
Cognitive skills in preventing accidents from traffic.							
Urban area	485	11.02	0.95	-0.21	-3.17	-0.34 ถึง -0.08	0.002*
Rural area	243	11.23	0.78				
Access to information and skills about health services, protection from traffic accidents							
Urban area	485	13.95	2.75	-0.27	-1.10	-0.76 to 0.22	0.272
Rural area	243	14.22	3.36				
Communication skills to promote the practice in preventing accidents from traffic.							
Urban area	485	14.05	1.87	0.35	2.31	0.05 to 0.65	0.021*
Rural area	243	13.70	2.07				
Decision making skills in practice to prevent disasters from traffic.							
Urban area	485	14.79	2.90	-0.32	-1.65	-0.70 to 0.06	0.100
Rural area	243	15.11	2.19				
Self management skills to prevent accidents from traffic.							
Urban area	485	17.46	2.91	-0.18	-0.80	-0.64 ถึง 0.27	0.423
Rural area	243	17.64	3.05				

*Significant at p-value < 0.05

Table 11 compares the average of the different skills about health intelligence matters from traffic accident prevention of the elderly group living in the municipalities and groups living outside the municipal area (n = 728). (Cont.)

Health literacy for traffic accident prevention.	n	Mean	SD	Mean difference	t	95%CI	p-value
Media literacy skills on how to prevent accidents from traffic.							
Urban area	485	11.50	2.28	-0.40	-1.62	-0.88 to 0.08	0.105
Rural area	243	11.89	3.44				
Practical skills in preventing accidents from traffic.							
Urban area	485	29.46	3.36	-0.62	-2.57	-1.10 to -0.15	0.010*
Rural area	243	30.09	2.93				

*Significant at p-value < 0.05

4.2 Part 2. Quantitative part of old age people with traffic accident

The traffic accident prevention of old age people who have experience of traffic.

1. General characteristics of old age people who have experience of traffic accident.

The total sample size consists of **old age people who have experience of traffic accident** 208 samples in Khon Kaen and Buengkarn province They live in municipal or urban area 133 samples and live in rural area75 samples. Most of them were male 77 (57.89)in urban area and 47 (62.67%) in rural area had age group of 65-70 years old 90 (67.67%)in urban area and > 65 years old also 40 samples (53.33%) in rural area. Most of them were marital status107 (80.45%)in urban area and 49 (65.33%) in rural area, and education both in primary schoo120 (90.23) in urban area and 70(93.33%) in rural area. Most no occupation 61 (45.89%) in urban area and 42 (56.00 %) in rural area, Most of them were healthy both 44(33.08%) in urban area and 35 (46.67) in urban area .Income less than5,000bt (166 USD) Per month both. 95 (71.43) in urban area and 59 (78.67%) in rural area. Treatment privilege both were golden card 110(82.71) in urban area and 61 (81.33%) in rural area. The distant from home to health station both less than 5 km. 89 66.92%) in urban area and 69(92.00%) in rural area. Ordinary transportation were motorcycle most 51 (38.35) subsequent was car and pedestrian 35(26.32%) and 33 (24.81 %) in urban area and bus and Motorcycle most 23 (30.67%)subsequent was car 20 (26.67%) in rural area. The people who taking car of them when sickness were son and nephew both urban and rural area 107 (80.45%) and 67(89.33%). The use to receive medical treatment from accident 70 (52.63%) and 62 (82.67%) in urban and rural area consequently.

The amount of time receive medical treatment most only 1 time 61(87.14%) in urban area and 57(91.94%) in rural area. The number of days for which hospitalization more than 5days 10 (55.56%)in urban area and 1-4 days in rural area. Most of them have a minor injuries 123 (92.48%) and 65 (86.67%) in rural area.

The traffic accident occurred of feature stories elderly people in urban and rural communities.

The table 12 personal data classified by seniors living in municipalities and county councils, the outside (n = 208)

The personal data.	Urban area (n = 133).	Rural area (n = 75).

	Number	percent	Number	percent
Sex				
Male	**77**	**57.89**	**47**	**62.67**
Female	**56**	**42.11**	**28**	**37.33**
Age (years)				
65-70 years	**90**	**67.67**	**40**	**53.33**
> 70 years	**43**	**32.33**	**35**	**46.67**
Mean(SD)	**69.96(4.67)**		**71.53(5.14)**	
Median (Min:Max)	**69(60:85)**		**70(62:85)**	
Marital status				
Married	**107**	**80.45**	**49**	**65.33**
Widowed (spouses died.)	**24**	**18.05**	**25**	**33.33**
Divorce	**0**	**0.00**	**0**	**0.00**
Single	**2**	**1.50**	**1**	**1.34**
Education				
No education	**1**	**0.75**	**4**	**5.33**
Primary school	**120**	**90.23**	**70**	**93.33**
Junior High school	**11**	**8.27**	**1**	**1.34**
Diploma	**1**	**0.75**	**0**	**0.00**

The table 12 personal data classified by seniors living in municipalities and county councils, the outside (n = 208)

The personal data.	Urban area **(n = 133).**		Rural area **(n = 75).**	
	Number	percent	Number	percent
Occupation				
No occupation	**61**	**45.86**	**42**	**56.00**
Agriculture	**39**	**29.32**	**28**	**37.33**
Subcontracts	**18**	**13.53**	**4**	**5.33**
Commercial	**12**	**9.02**	**1**	**1.34**
Other	**3**	**2.26**	**0**	**0.00**
Illness				
Health	**44**	**33.08**	**35**	**46.67**
Diabetes Mellitus	**20**	**15.04**	**11**	**14.67**
Hypertension	**38**	**28.57**	**19**	**25.33**
Heart Disease	**5**	**3.76**	**1**	**1.33**
Hypertension & Diabetes Mellitus	**16**	**12.03**	**6**	**8.00**
Other	**10**	**7.52**	**3**	**4.00**
Income per month /family				
< 5,000 baht	**95**	**71.43**	**59**	**78.67**
5,000-10,000 baht	**34**	**25.56**	**16**	**21.33**
> 10,000 baht	**4**	**3.01**	**0**	**0.00**

Treatment Privilege				
No	**1**	**0.75**	**2**	**2.67**
Golden card	**110**	**82.71**	**61**	**81.33**
Government official	**15**	**11.28**	**11**	**14.67**
Self Payment	**3**	**2.26**	**0**	**0.00**
Social Insurance	**1**	**0.75**	**0**	**0.00**
Other	**3**	**2.25**	**1**	**1.33**

The table 12 personal data classified by seniors living in municipalities and county councils, the outside (n = 208)

The personal data.	**Urban area (n = 133).**		**Rural area (n = 75).**	
	Number	**percent**	**Number**	**percent**
The distance from home to infirmary. (Health station / The hospital)				
< 5 kilometres	89	66.92	69	92.00
5 – 10 kilometres	40	30.08	4	5.33
11 – 15 kilometres	3	2.26	0	0.00
> 15 kilometres	1	0.74	2	2.67
Transportation for ordinary using				
Pedestrian	33	24.81	1	1.32
Bicycle	4	3.01	6	8.00
Motorcycle	51	38.35	23	30.67
Car	35	26.32	20	26.67
Bus	9	6.77	23	30.67
Other	1	0.74	2	2.67
People who take care of you while sick				
Self care	17	12.78	0	0.00
Husband/wife.	9	6.77	8	10.67
Son/nephew.	107	80.45	67	89.33
Neighbors/Village Health Volunteer	0	0.00	0	0.00
You ever receive medical treatment from the accident.				
Never receive medical treatment	63	47.37	13	17.33
Ever receive medical treatment	70	52.63	62	82.67

The table 12 personal data classified by seniors living in municipalities and county councils, the outside (n = 208)

The personal data.	Urban area (n = 133).		Rural area (n = 75).	
	Number	percent	Number	percent
The amount of time they receive medical treatment (if ever receive medical treatment) (n = 132).				
1 time	61	87.14	57	91.94
2 or more times	9	12.86	5	8.06
Mean(SD)	1.17(0.48)		1.19(0.78)	
Median (Min:Max)	1(1:3)		1(1:6)	
Receive medical treatment history				
Had attended the hospital back home	115	86.47	57	76.00
Ever receive medical treatment and hospitalization	18	13.53	18	24.00
The number of days for which hospitalization (if ever receive medical treatment and hospitalization) (n = 36).				
1 – 4 days	8	44.44	10	**55.56**
5 days or more.	10	55.56	8	**44.44**
Mean(SD)	7.28(7.48)		34.44(86.56)	
Median (Min:Max)	5(1:30)		3(1:365)	
The severity of the injury.				
Minor injuries	123	92.48	65	**86.67**
Much injury	10	7.52	10	**13.33**

The table 13 information in traffic accidents of the elderly. Classification according to the housing and municipality outside the municipal area (n = 208)

Traffic accidents occurred in the data.	Urban area (n = 133).		Rural area (n = 75).	
	Number	percent	Number	percent
The severity of road traffic accidents that occur.				
Very severe	6	4.51	8	10.67
Moderately severe	36	27.07	21	28.00
Not serious	91	68.42	46	61.33
Offenders of traffic accidents (accidents, traffic who is wrong).				
Dual case	22	16.54	19	25.33
You	106	79.70	46	61.33
Both parties	5	3.76	10	13.34
Factors related to traffic accidents that happened most.				
The person	87	65.41	42	56.00
Roadway	22	16.55	13	17.33
Car	12	9.02	5	6.67
Environment	12	9.02	15	20.00
The person who helped when the traffic accident occurs.				
Ambulance service	40	30.08	29	38.67
Relatives and acquaintances.	67	50.38	42	56.00
Policeman.	0	0.00	1	1.33
Other	26	19.54	3	4.00
To respect the traffic rules strictly would cause.				
Yes	113	84.96	69	92.00
No	20	15.04	6	8.00

The damage from the accident this time.				
Only the people	76	**57.14**	**35**	**46.67**
Only the car	5	**3.76**	**4**	**5.33**
people and Car	52	**39.10**	**36**	**48.00**

The table 13 information in traffic accidents of the elderly. Classification according to the housing and municipality outside the municipal area (n = 208)

Traffic accidents occurred in the data.	Urban area (n = 133).		Rural area (n = 75).	
	Number	percent	Number	percent
If there are updates to traffic, the better this will be accidents.				
Yes	108	81.20	64	85.33
No	25	18.80	11	14.67
The careless driving Cause accidents this time.				
Yes	121	90.98	69	92.00
No	12	9.02	6	8.00
the opponent is not so careful in this accident occurred.				
Yes	47	35.34	33	44.00
No	86	64.66	42	56.00
Bad roads cause accidents.				
Yes	41	30.83	27	36.00
No	92	69.17	48	64.00
Being admitted to the hospital from the accident this time.				
Not to get into the hospital.	59	44.36	15	20.00
To make the incision and return home.	56	42.11	47	62.67
Admitted to the hospital.	18	13.53	13	17.33

The table 13 information in traffic accidents of the elderly. Classification according to the housing and municipality outside the municipal area (n = 208) (Cont)

Traffic accidents occurred in the data.	Urban area (n = 133).		Rural area (n = 75).	
	Number	percent	Number	percent
The number of days at the hospital from the accident this time (if admitted to the hospital) (n = 31).				
1 – 5 days	10	55.56	6	46.15
6 days or more.	8	44.44	7	53.85
Mean(SD)	5.56(4.36)		47.31(99.85)	
Median (Min:Max)	5(1:14)		7(2:365)	
The severity of health characteristics.				
no injuries.	4	3.01	5	6.67
Minor injuries	73	54.89	24	32.00
Make an incision.	40	30.08	28	37.33
Put the taro	12	9.01	8	10.67
Ablation	4	3.01	9	12.00
Access to ICU	0	0.00	1	1.33

The table 14 suggestions for the sake of traffic. Classification according to the housing and municipality outside the municipal area (n = 208)

Suggestions for the benefit of traffic.	Urban area (n = 133).		Rural area (n = 75).	
	Number	percent	Number	percent
Road: should be checked, no bumpy road.				
Yes	57	42.86	25	33.33
No	76	57.14	50	66.67
Road: roads have warning signs on intersections.				
Yes	67	50.38	47	62.67
No	66	49.62	28	37.33
Road: roads are red lights.				
Yes	10	7.52	8	10.67
No	123	92.48	67	89.33
Road: traffic police or traffic Candler, with main points.				
Yes	17	12.78	10	13.33
No	116	87.22	65	86.67
Vehicle: not to exceed 10 old car used				
Yes	54	40.60	50	66.67
No	79	59.40	25	33.33
Vehicle: car not used for agriculture.				
Yes	6	4.51	4	5.33
No	127	95.49	71	94.67
Vehicle: a vehicle inspections every year.				
Yes	81	60.90	30	40.00
No	52	39.10	45	60.00
Environment: there are traffic lights.				
Yes	59	44.36	36	48.00
No	74	55.64	39	52.00

The table 14 suggestions for the sake of traffic. Classification according to the housing and municipality outside the municipal area (n = 208) (Cont.)

Suggestions for the benefit of traffic.	**Urban area (n = 133).**		**Rural area (n = 75).**	
	Number	**percent**	**Number**	**percent**
Environment: there is a suitable road crossing.				
Yes	33	24.81	19	25.33
No	100	75.19	56	74.67
Environment: there is ample traffic channels. There are no obstacles.				
Yes	52	39.10	34	45.33
No	81	60.90	41	54.67
Promote safe behavior: no driving for excess speed.				
Yes	87	65.41	48	64.00
No	46	34.59	27	36.00
Promote safe behavior: don't drink and drive.				
Yes	29	21.80	29	38.67
No	104	78.20	46	61.33
Promote safe behavior: do not use the phone while driving.				
Yes	10	7.52	8	10.67
No	123	92.48	67	89.33
Promote safe behavior: maintaining body condition, with strength in driving.				
Yes	28	21.05	9	12.00
No	105	78.95	66	88.00
Promote safe behavior: treat mental conditions, good. Not sleepy. Not angry. No irritability while driving.				
Yes	16	12.03	9	12.00
No	117	87.97	66	88.00

Should promote respect for traffic rules strictly.				
Yes	**130**	**97.74**	**74**	**98.67**
No	**3**	**2.26**	**1**	**1.33**

The table 14 suggestions for the sake of traffic. Classification according to the housing and municipality outside the municipal area (n = 208)

Suggestions for the benefit of traffic.	Urban area (n = 133).		Rural area (n = 75).	
	Number	percent	Number	percent
Traffic accident prevention campaign: exciting media attention.				
Yes	27	20.30	11	14.67
No	106	79.70	64	85.33
Traffic accident prevention campaign: a consistent continuity.				
Yes	100	75.19	61	81.33
No	33	24.81	14	18.67
Traffic accident prevention campaign: the campaign throughout the year.				
Yes	18	13.53	9	12.00
No	115	86.47	66	88.00
Community leaders, more important in preventing traffic accidents				
Yes	129	96.99	71	94.67
No	4	3.01	4	5.33
Communications system that is more efficient.				
Yes	126	94.74	73	97.33
No	7	5.26	2	2.67
System to receive treatment.				
Yes	121	90.98	74	98.67
No	12	9.02	1	1.33
The security system should be held in traffic, especially the elderly.				

Yes	127	95.49	72	96.00
No	6	4.51	3	4.00
Should show the statistics of accidents to the public widely seen to awareness.				
Yes	104	78.20	59	78.67
No	29	21.80	16	21.33

The table 14 suggestions for the sake of traffic. Classification according to the housing and municipality outside the municipal area (n = 208)

Suggestions for the benefit of traffic.	Urban area (n = 133).		Outside the municipal area (n = 75).	
	Number	percent	Number	percent
Awareness to the public in the use of the car by road: from family advocacy.				
Yes	80	60.15	43	57.33
No	53	39.85	32	42.67
Awareness to the public in the use of the car by road: advocacy since kindergarten.				
Yes	24	18.05	16	21.33
No	109	81.95	59	78.67
Awareness to the public in the use of the car by road: advocacy at all levels of education and continuous.				
Yes	42	31.58	23	30.67
No	91	68.42	52	69.33
Awareness to the public in the use of the car by road: the company sold car must give priority to safety each time when available and reasonably responsible.				
Yes	9	6.77	8	10.67
No	124	93.23	67	89.33

4.3 Part 3 The qualitative research from in-dept interview.

1. Accident by car

The study found that accident by car occur traffic accident in rural more than urban area and not too much severe, rural area occur at the afternoon most, cause of accident were risk behavior such as drunk drive, high speed, on the other hand due to animal in rural area. Traffic accident prevention by always check the vehicle, limit speed, don't drink drive, be careful. And respect for traffic rule. Beside these found that both urban and rural area same rate of traffic accident by motorcycle ,trike, three wheel vehicle, Urban are found accident by bus, bicycle, mean while rural area found more accident in pedestrian or walk on street and agricultural vehicle.

Table 15. Compare of The qualitative research from in-dept interview between old age people in urban and rural area.

Cars		
	Urban Area (7 cases)	**Rural area (13 case)**
- Place of accident	• A row of Phang Khon, Sakon Nakhon (1 case). • In front of the house itself (1 case). • Front fork in Nong sang (1 case). • Middle Chinese and 1 junction (case). • The village Nong don (1 case). • The page in shrimp (1 case). Ban Khok Samran (1 case)	• Main street (9 case) • The streets in the village. (2 case) • The road cut the train.(1 case) The front of the school (1 case)
- The characteristic injuries.	• Have the left eyebrow laceration wounds, and left hand finger fingers 2 and 3 (1 case).	• Ulcers, torn by the body. (The face/body/arms/legs/fingers/toes.) (1 case) • Belly pain (1 case)

	• Chest pains (2 cases). • Neck pain (1 case). • Wounds, abrasions, according to bottom arms (1 case). • Blisters, abrasions to the head (1 case). The shoulder wound, contusion (1 case).	• Neck pain. (1 case) • Bruises on the body (The face/body/arms/legs/fingers/toes.) (6 case) Broken bones/bones crack (4 case)
- At the time of the accident	• The accident just 1 record time. - Is the time 7.00 pm.	• With a record time of the accident only 6 case. Is: - 10.00 AM.(1 case) - 1.00 PM.(1 case) - 2.00 PM.(2 case) - 5.30 PM.(1 case) 11.00 PM.(1 case)
- The cause of accident.	• Break break. • Panic. • Driving fast. • The driver was drunk alcohol. • Motorcycle clash. • Drinking alcohol. Party drunk.	• doze off • The dog ran in front of the car. • Reckless driver • The child ran in front of the car. • Panic. • Driving at high speeds. The truck turned out in front of the car.
- Accidental manner.	<u>No parties.</u> • Car brake causing the car	<u>No parties.</u> • The driver fell asleep in

	hit a tree. • Measles symptoms are driving new panic, making driving the car ramming pole. <u>Have a party.</u> • Car collides with a car of the litigant. • Driving the couple's car, the stern cases. • Driving a car in collision with the motorcycle of the litigant. • Truck collides with the couple's pickup truck a sleek case. Pickup trucks with Sesame solder bump of the litigant. Because the parties drunk.	the car was overturned, the balance • Not good at driving causes panic, making the car down the street. • Driving past can bend road. • Driving a car hit a tree beside the road. Making a tire explosion • Falling car seat (rear end tailgate). <u>Have a party.</u> • Broken Dodge dogs. Make the car down the street. • Car collides with train • Automobile collisions with pedestrians. • Car collides with an 18-wheel trailer The truck, turn the page, cutting down the side of the road..
-How is this not on the person. Case to environmental aspects as a whole	• Always check the vehicle before departure, every time. • Don't drive fast. • No reckless driver • Time to practice driving, and rubella driving under the supervision of an	• Adequate rest prior to departure. • Should not be driving fast. • Driving without reckless. • Should take care of a child, well under the supervision of your

	expert. • Don't drink and drive. • Driving time should look left and right before the road turn. Not drunk while driving.	parents not to come out to play on the road. • Driving with a respect for traffic rules strictly.
Suggestions to prevention of traffic accidents in the elderly.		• Should not be driving if the driver is not overrated. • The use of the car in the seniors must use caution rather than young people, because the eyes and nervous system, every part of the body is slower than a lot of young people. • If it's not necessary, don't travel far, or if your child is supposed to go.

2. Accident motorcycle.

Traffic accident by motorcycle occur same rate in urban and rural area.

Motorcycles		
	Urban Area (48 cases)	**Rural area (47 case)**
- Place of accident	• *Main Street (10 cases).* • *The canal water, water inflatable (1 case) sub-district.* • *Inflatable water municipal page (1 case).* • *Page, plant, water, sugar water, or the inflatable inflatable. (2 cases)*	• *The Central village shop page.(2 cases)* • *The streets in the village. (26 cases)* • *Main street (3 cases)* • *The road to farms The forest Temple (8 cases)* *The front of the school.(2*

	• *Chonburi (1 case).* *School (2 cases).* • *The road to the ground to the rubber plantation (3 cases).* • *In front of the house itself (1 case).* • *Market (2 cases).* • *Page hospital (2 cases).* • *The roads in the village (14 cases).* • *The front of the restaurant 7-11 (1 case).* • *Crossroads district (4 cases).* • *Three separate intersection on the market (2 cases).* • *In front of the temple (1 case).* *Police station (1 case)*	*cases)* • *The front of the Subdistrict Administration Organization (1 case)* • *in front of the temple. (2 cases)* • *In front of sugar factory (1 case)* • *In front of health promoting hospital district. (1 case)* *Crossroads district (1 case)*
- The characteristic injuries.	• *Blisters, abrasions, according to the body.* (The face/body/arms/legs/fingers/toes) *(15 cases).* • *Knee swelling (1 case).* • *Tight chest (1 case).* • *The head swell or crack (5 cases).* • *Leg pain (3 cases).* • *Broken bones/bones crack (8 cases).*	• *Ulcers, torn by the body.* *(The face/body/arms/legs/fingers/toes.) (18 cases)* • *Bruises on the body* *(The face/body/arms/legs/fingers/toes.) (16 cases)* • *Broken bones/bones crack (6 cases)* • *Swelling or cracking the head.(1 cases)* • *Eye swelling or*

	• *Body pain (6 cases).* *Ulcers, torn by the body.* (The face/body/arms/legs/fingers/toes) (8 cases). *Warped arm (1 case).*	*cracking.(1 case)* • *Bloody crazy in the brain (1 case)* • *Chest pain(1 case)* • *Contusion (2 cases)* *Knee swelling. (1 case)*
- At the time of the accident	• *With a record time of the accident, only 9 cases. Is:* - *7.00 AM.(1 case)* - *8.00 AM.(2 cases)* - *9.00 AM.(2 cases)* - *9.30 AM.(1 case)* - *5.00 ม PM.(1 case)* - *6.30 PM.(1 case)* - *7.30 PM. (1 case)*	• *With a record time of the accident only 3 cases. Is:* - *10.30 AM.(1 case)* - *3.00 PM.(1 case)* *19.00 PM.(1 case)*
- The cause of accident.	• *Rain, slippery streets seen* • *Driving speed* • *Under the influence of alcohol* • *Fright cars honk insert* • *Falling on the road.* • *The sight of people driving badly, making easy to look bad.* • *Car brakes suddenly.* • *Symptoms of alcohol and a disputant intoxication.* • *Dog run, cutting the front of the*	• *The dog ran in front of the car.* • *Drive fast.* • *Drunk.* • *Invisible car cars driver back on the road* • *The roads are bad road hole.* • *Slippery road* • *Panic overtaking cars came back.* • *Reckless.*

	bus. • *Car, driving, cutting case page.* • *Comanche car crash case* *The main vehicle. The car driver was not.*	• *Older, the supporting.* • *Car, driving, cutting pages* • *Sleek automobile collision.* • *Dark/obscure tree. Invisible way.* • *Raining invisible way.* • *Car brakes suddenly.* *Can not get car brakes*
- Accidental manner.	. *<u>No parties.</u>* • *Rain, slippery streets, the car seen falling.* • *Driving a motorcycle at a speed to cause an accident.* • *Car brakes suddenly, making the car fails.* • *Driving past can bend road.* • *Overlapping motorcycle then fell in the street, making the car fall splashes.* • *Driving a motorcycle down a side street.* • *Alcohol makes driving a motorcycle falling itself.* • *Driving a motorcycle smash walls of the temple.* • *Overlapping motorcycles, thus making the car fall.* *<u>Have a party.</u>*	*<u>No parties.</u>* • *The motorcycle fell in the street, making the bankruptcy.* • *Driving a motorcycle falling itself.* • *Panic overtaking cars coming back making motorcycles, flip upside down.* • *Ramming pole electric motorcycle.* • *Car brakes are not damaged, the car down main street.* • *Driving a motorcycle collision warning signs* *<u>Have a party.</u>* • *Dog run, cutting the motorcycle page, making the car fails.* • *Kids cutting pages run*

	• *Driving a motorcycle collision with a motorcycle of the litigant.* *Children run around the car* • *suddenly brakes, front cut, making the car falling.* • *The dog ran a car suddenly brakes, front cut, making the car falling.* • *Driving a motorcycle collision with tricycle of litigant.* • *Comanche motorcycle cases came to the stern while driving.* • *Comanche cars case came the stern while driving/took.* • *Driving a motorcycle collides with car of the litigant.* • *Overlapping motorcycle driver brakes the car suddenly because of a pickup truck, hit the lights, the car came to a sudden falling.* • *Car brakes suddenly, is cutting car. Make the motorcycle from falling out.* *Driving a motorcycle collisions, pedestrian*	*motorcycle vehicles falling.* • *Motorcycle, motorcycle collision of the litigant.* *Motorcycle collides with car* • *parking.* • *Driving a motorcycle, motorcycle collision cars driving back on the road.* • *Car brakes suddenly, is cutting car. Make the motorcycle from falling out.* • *Comanche cars plying collision.* • *Motorcycle collides with car wheels of the litigant.* • *Three-wheel drive cut the pages. Causes of panic, making the car falling.* • *Driving a motorcycle collision with a bicycle of the litigant.*
-How is this not on the person. Case to environmental aspects as a whole	• *Should not hurry driving rain episodes* • *Don't drive fast.* • *Follow the traffic rules.* • *Don't drink and drive.*	• *Should not be driving fast is overdue.* • *There are signs warning the intersection curve.* • *Driving with caution is not complacent.*

	• *Careful driving is not reckless and conscious the entire time.* • *When the road forks, should slow the car first to see if there is a car park or not.* • *Increase brightness by lighting adequately, especially the road curve.* • *Repair work is always the road improvements, so the streets are ready-to-use.* *Check before every use.*	• *Don't drink and drive.* • *Road improvements are available.* • *Consciously driving all the time.* • *Allow your child to send instead of driving by yourself.* • *There are lights to brighten the streets is adequately.* • *There are no obstacles on the road.* • *Follow the traffic rules strictly.* *Check the car before driving it every time.*
Suggestions to prevention of traffic accidents in the elderly.	• *Don't drink and drive.* • *Should give priority to the use of the vehicle using the road in the elderly.* • *Beware to accident, wear a helmet, not reckless.* *Should refrain from driving a car. If the eyes are not good*	

-***3. Accident when walk on the streets***..found that occur in rural area more than urban area.

Walk the streets		
	Urban Area	**Rural area (6 case)**
- Place of accident		• *The streets in the village.(5 case)* *The front of the Sub-*

		district Administration Organization (1 case)
- The characteristic injuries.		• *A swollen head. (1 case)* • *Ulcers, torn by the body.* *(The face/body/arms/legs/fingers/toes.) (2 case)* • *Bruises on the body* *(The face/body/arms/legs/fingers/toes.) (2 case)* *Broken bones/bones crack(1 case)*
- At the time of the accident		*There are no data to record the time of the accident.*
- The cause of accident.		• *Comanche pickup truck a sleek butt.* • *Comanche sleek motorcycles collide* *Not enough light on the dark road.*
- Accidental manner.		*Have a party.* • *Are the trucks plying in while walking* • *Being a motorcycle collision while walking on a sleek* *Is the truck plying butt while walking*
-How is this not on the person. Case to environmental aspects as a whole		• *Should never walk the streets at night or in the dark.* • *There are lights to brighten the streets is adequately.* *Before crossing the road,*

		the car should look left and right before deciding to walk across

4. Accident by Bus. Found that traffic accident by bus occur in urban area more than rural area.

Bus		
	Urban Area (3 cases)	**Rural area**
- Place of accident	• *Main Street (1 case).* • *In front of Nam Phong Market (1 case).* *In front of Chum Phae school (1 case).*	
- The characteristic injuries.	• *A swollen head (2 cases).* *Left arm pain, chest bottom deformation (1 case).*	
- At the time of the accident	• *There are no data to record the time of the accident.*	
- The cause of accident.	• *18-wheel trailer is hitting.* • *Speed driving, the car.* *Reckless driver*	
- Accidental manner.	*Have a party.* • *18-wheel trailer trailer finally came unraveled collides with bus.* • *Comanche motorcycle beforehand makes the bus.* *Buses (van) collides with car, 6 wheels.*	• .
-How is this not on the person. Case to environmental	*The bus driver drove very carefully and not reckless* • *driving, no sooner than the*	

aspects as a whole	*law.*	

5.Accident by Trike .found that occur the same level in urban and rural area and not much, cause of fast driving.

Trike		
	Urban Area (3 cases)	**Rural area (2 cases)**
- Place of accident	• *The streets in the village. (3 cases)*	• *The streets in the village.(2*
- The characteristic injuries.	• *Blisters, abrasions, according to the body.* *(The face/body/arms/legs/fingers/toes) (2 cases).* *Hip flask (1 case).*	• *Bruises on the body* • *(The face/body/arms/legs/fingers/toes.) (2 cases)*
- At the time of the accident	• *With a record time of only 1 accident cases is at 10.00 am.*	• *There are no data to record the time of the accident*
- The cause of accident.	• *Driving speed.* • *Drinking alcohol.*	• *Tire cracking* • *Three-wheel driver driving fast.*
- Accidental manner.	*No parties.* • *Speed driving, the car overturned.* • *Fishing the Trike.* • *Drunk and then drive three Wheeler collision with electric poles.* *Have a party.* • *Broken Dodge car trailer overturned.*	*No parties.* • *Tires make the car damaged crack master failover.* • *Fishing the Trike.*
-How is this not on the person. Case to	• *Should not be driving fast. The car used the*	• *Check the car before*

environmental aspects as a whole	*road regulations.* • *Don't drink until intoxicated before driving.*	*driving it every time.* • *Don't drive fast.*

6.Accident by Saleng car ***(Three wheel Motorcar)*** found that occur the same level in urban and rural area cause of careless.

Saleng car *(Three wheel Motorcar)*		
	Urban Area (3 cases)	**Rural area (2 cases)**
- Place of accident	• *The front of the school (1 case).* • *The front of the market (1 case).* • *The front of municipal (1 case).*	• *The streets in the village (2 cases)*
- The characteristic injuries.	• *Blisters, abrasions, according to the body.* (The face/body/arms/legs/fingers/toes) (1 case). • *Ulcers, torn by the body.* **(The face/body/arms/legs/fingers/toes) (2 cases).**	• *Broken bones/bones crack(1 case)* • *Bruises on the body* ***(The face/body/arms/legs/fingers/toes.) (1***
- At the time of the accident	• *There are no data to record the time of the accident.*	• *There are no data to record the time of the accident.*
- The cause of accident.	• *Car tire cracking* • *Careless, reckless driving*	• *Drunk.* *Party drunk.*
- Accidental manner.	***No parties.*** • *Car tires, causing the main vehicle and flipped upside down.* ***Have a party.*** • *Tailgate bump saleng*	***No parties.*** • *Driving the saleng smash advertising* ***Have a party.*** • *The drunken man driving a*

	car. *6-wheel vehicle car smash saleng, Judith*	*pickup truck came to smash while driving accident saleng road.* •
-How is this not on the person. Case to environmental aspects as a whole	• *Should check the condition of the car before driving.* • *Used car road use with caution.* *Follow the traffic rules strictly.*	• *Don't drink and drive.* •

7. *Accident by Bicycle* occur in urban area more than rural area.

Bicycle		
	Urban Area (7 cases)	**Rural area (4 cases)**
- Place of accident	• *The front of the School (1 case).* • *The front of the Market (3 cases).* • *Huai yellow lever bridge (1 case).* • *The road to ines (1 case).* *The roads in the village (1 case).*	• *Road entrance to the village (2 cases)* • *In front of the temple.(1 case)* • *The roads in the village (1 case)*
- The characteristic injuries.	• *Blisters, abrasions, according to the body.* (The face/body/arms/legs/fingers/toes) (3 cases). • *Ulcers, torn by the body.* (The face/body/arms/legs/fingers/toes) (2 cases). • *Leg pain (2 cases).*	• *Contusion (2 cases)* • *Broken bones/bones crack (2 cases)*
- At the time of the accident	*With a record time of only 2 accident cases*	• *There are no data*

	Is: *-8.00 pm (1 cases).* *-10.00 p.m. (1 cases).*	*to record the time of the accident.* •
- The cause of accident.	• *Drinking alcohol.* • *Riding a bicycle is not careful.* • *Slippery road* • *Stumbling stone because the stone is not visible on the road.* • *The leg is rarely strong stability is no car.* • *No car is braking..*	• *Not enough light on the dark road.* • *Slippery road* • *Drunk.* • *Careless cycling time.*
- Accidental manner.	*No parties.* • *Fails, makes bike wounds, abrasions,* • *Biking: fall, making the bike falling* • *Street bike slip falling.* • *Cycling, notably falling stones.* • *Bike down the Hill, then the brake is not a bicycle, so butt trash.*	*No parties.* • *Cycling the bankruptcy itself.* *Have a party.* • *Ramming bike to Trike of the litigant.* *Is a sleek pickup collide while cycling*
-How is this not on the person. Case to environmental aspects as a whole	• *Do not drink alcohol* • *Used car road use with caution.* *A healthy body is not strong, it should not be driving.*	• *Should not be cycling at night.* • *Check the bike, is in good condition and can be used.* • *Don't be careless*

		and consciousness *Don't drink and drive/biking*

8.Accisent by *Agricultural vehicles (mini-tractor) occur in rural area most.*

Agricultural vehicles (mini-tractor)		
	Urban Area	**Rural area (1 cases)**
- Place of accident		*Middle infield (1 case)*
- The characteristic injuries.		*Contusion (1 case)*
- At the time of the accident		*There are no data to record the time of the accident.*
- The cause of accident.		*Pavement.*
- Accidental manner.		• *No parties.* *The road is not equal, the car turn over.*
-How is this not on the person. Case to environmental aspects as a whole		*Do not be careless in the use of the vehicle using the road.*

CHAPTER 5 SUMMARY AND RECOMMENDATION

5.1 The results

The results of this descriptive study were base on the response of 728 general old age people, 208 old age people who have experience of traffic accident and 147 of in-depth interview. Descriptive research study mix method , data collection both qualitative and qualitative data. Study in Khon Kaen Province, and Buengkarn Province Thailand. Data were collected by questionnaire for quantitative data meanwhile qualitative data using in-depth interview, and observation. Content analysis for qualitative data and descriptive statistics for quantitative data. The results could summarize as follow.

Part 1 General characteristics of general old age people .

The total sample size consists of general old age people 728 samples in Khon Kaen and Buengkarn province They live in municipal or urban area 485 samples and live in rural area 243 samples. Most of them were male 298 (61.44)in urban area and 136(55.97%) in rural area had age group of 65-70 years old (59.18%)in urban area and 70 years old 123 samples (50.62%) in rural area. Most of them were marital status 369 (76.08%)in urban area and 144(59.26%) in rural area, and education both in primary school 404 (83.30) in urban area and 174(71.60%) in rural area. Most no occupation 288 (59.38%) in urban area and 98 (40.33%) in rural area, Most of them were healthy both 143 (29.48%) in urban area and 91(37.45) in urban area .Income less than5,000bt (166 USD) Per month both. 376 (77.53) in urban area and 139 (57.20%) in rural area. Treatment privilege both were golden card424 (87.42) in urban area and 198 (81.48%) in rural area. The distant from home to health station both less than 5 km. 349(71.96%) in urban area and 106 (43.62%) in rural area. Ordinary transportation were pedestrian 144(29.69) subsequent was motorcycle and bicycle 142(29.28%) and 95 (19.59%) in urban area and Motorcycle most 103(42.39%)subsequent by car and bicycle 71 (29.22%) and 25 (10.29%) in rural area.

2. The Cognitive skill in preventing traffic accident.

Most of cognitive skill in preventing traffic were in good level. Access to health information for traffic accident prevention was in good level (mean 13.95). Communication skill was good level also(14.05)Decision making skill was in good level (mean14.79) self management skill was in good level (17.46in urban area) and 17.64 in rural area. Media literacy skill was in middle level both in urban and rural area (mean=11.50 and 11.89) practical skill were in good level both urban and rural area (29.46and 30.09) .

Part 2**. General characteristics of** senior **people who have experience of traffic accident.**

The total sample size consists of senior **people who have experience of traffic accident** 208 samples in Khon Kaen and Buengkarn province They live in

municipal or urban area 133 samples and live in rural area75 samples. Most of them were male 77 (57.89)in urban area and 47 (62.67%) in rural area had age group of 65-70 years old 90 (67.67%)in urban area and > 65 years old also 40 samples (53.33%) in rural area. Most of them were marital status107 (80.45%)in urban area and 49 (65.33%) in rural area, and education both in primary schoo120 (90.23) in urban area and 70(93.33%) in rural area. Most no occupation 61 (45.89%) in urban area and 42 (56.00 %) in rural area, Most of them were healthy both 44(33.08%) in urban area and 35 (46.67) in urban area .Income less than5,000bt (166 USD) Per month both. 95 (71.43) in urban area and 59 (78.67%) in rural area. Treatment privilege both were golden card 110(82.71) in urban area and 61 (81.33%) in rural area. The distant from home to health station both less than 5 km. 89 66.92%) in urban area and 69(92.00%) in rural area. Ordinary transportation were motorcycle most 51 (38.35) subsequent was car and pedestrian 35(26.32%) and 33 (24.81 %) in urban area and bus and Motorcycle most 23 (30.67%)subsequent was car 20 (26.67%) in rural area. The people who taking car of them when sickness were son and nephew both urban and rural area 107 (80.45%) and 67(89.33%). The use to receive medical treatment from accident 70 (52.63%) and 62 (82.67%) in urban and rural area consequently.

The amount of time receive medical treatment most only 1 time 61(87.14%) in urban area and 57(91.94%) in rural area. The number of days for which hospitalization more than 5days 10 (55.56%)in urban area and 1-4 days in rural area. Most of them have a minor injuries 123 (92.48%) and 65 (86.67%) in rural area.

3. Vehicle and accident

The study found that accident by car occur traffic accident in rural more than urban area and not too much severe, rural area occur at the afternoon most, cause of accident were risk behavior such as drunk drive, high speed, on the other hand due to animal in rural area. Traffic accident prevention by always check the vehicle, limit speed, don't drink drive, be careful. And respect for traffic rule. Beside these found that both urban and rural area same rate of traffic accident by motorcycle ,trike, three wheel vehicle, Urban are found accident by bus, bicycle, mean while rural area found more accident in pedestrian or walk on street and agricultural vehicle.

5.2 Recommendation from research.

1. Focus on traffic accident prevention and their limitation and problem solving appropriate both in urban and rural area.
2. Concern the difference of transport capacity of old age people in the difference group .. young old, middle old and old old people.
3. Local authority should available various activities and club for old age people for increasing traffic accident prevention.

5.3 Recommendation for further research

1. Study the effectiveness program for increasing good behavior of traffic accident prevention among old age people both in urban and rural area.
2. Study factor effecting traffic accident among old age people both in urban and rural area.
3. Study a different characteristic of urban and rural area.
   on traffic accident prevention among old age people
4. Create health literacy media for traffic accident prevention among old age people both in urban and rural area.
5. Study the effectiveness program of health literacy for traffic accident prevention.

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Final Report

Research Grant 2017

ATRANS

APPENDIX

Questionnaire 1

พื้นที่ ☐ ในเขตเทศบาล ☐ นอกเขตเทศบาล ตำบล.....

อำเภอ.....จังหวัด.....

ลงชื่อ.....ผู้สัมภาษณ์

วันเดือนปี.....

แบบสอบถามในการวิจัย

เรื่อง ความฉลาดทางสุขภาพเรื่องการป้องกันอุบัติภัยจากการจราจร ของผู้สูงอายุ ระหว่างชุมชนเมืองและชุมชนชนบท

คำชี้แจง

แบบสอบถามนี้เป็นส่วนหนึ่งของการวิจัยเรื่อง **ความฉลาดทางสุขภาพเรื่องการป้องกันอุบัติภัยจากการจราจร ของผู้สูงอายุ ระหว่างชุมชนเมืองและชุมชนชนบท** ช้เวลาในการตอบแบบสอบถามประมาณ 20-30 นาที

ผู้วิจัยจึงใคร่ขอความร่วมมือในการตอบแบบสอบถามนี้ ตามความเป็นจริงและโปรดตอบแบบสอบถามทุกข้อ คำตอบของท่านถือว่าเป็นความลับ ข้อมูลที่ได้จะนำไปวิเคราะห์ในภาพรวม จึงไม่มีผลกระทบใดๆต่อผู้ตอบแบบสอบถามนี้ ข้อมูลที่ท่านตอบจะเป็นประโยชน์ต่อการสนับสนุนแนวทางในการป้องกันและวางแผนแก้ไขปัญหา**อุบัติภัยจากการจราจร ของผู้สูงอายุ ระหว่างชุมชนเมืองและชุมชนชนบท** แบบสอบถามชุดนี้ 3 ส่วน ได้แก่

ส่วนที่ 1 ข้อมูลด้านส่วนบุคคลของผู้สูงอายุ

ส่วนที่ 2 ความรู้ป้องกันอุบัติภัยจากการจราจร

ส่วนที่ 3 ทักษะด้านการเข้าถึงข้อมูลและบริการสุขภาพ

ส่วนที่ 4 ทักษะการสื่อสารเพื่อเสริมสร้าง**ป้องกันอุบัติภัยจากการจราจร**

ส่วนที่ 5 ทักษะการตัดสินใจในการปฏิบัติ**ป้องกันอุบัติภัยจากการจราจร**

ส่วนที่ 6 ทักษะการจัดการตนเอง**ป้องกันอุบัติภัยจากการจราจร**

ส่วนที่ 7 ทักษะการรู้เท่าทันสื่อ **ป้องกันอุบัติภัยจากการจราจร**

ส่วนที่ 8 การปฏิบัติ, **ป้องกันอุบัติภัยจากการจราจร**

รองศาสตราจารย์ ดร.จุฬาภรณ์ โสตะ
คณะสาธารณสุขศาสตร์
มหาวิทยาลัยขอนแก่น โทร 086-2389779

ส่วนที่ 1 ข้อมูลด้านส่วนบุคคลของผู้สูงอายุ

คำชี้แจง โปรดทำเครื่องหมาย ✓ลงใน ☐ และเติมข้อความในช่องว่างที่ตรงกับความเป็นจริงของท่านมากที่สุด

ข้อ	ข้อความ
1	เพศ ☐1. ชาย ☐2. หญิง
2	ปัจจุบันท่าน อายุ.....ปี (เต็ม)
3	สถานภาพสมรส ☐1. สมรส (แต่งงานแล้ว) ☐2. หม้าย (คู่สมรสเสียชีวิต) ☐3. หย่าร้าง (แต่งงานแล้วจดทะเบียนหย่า) ☐4. โสด (ยังไม่ได้แต่งงาน) ☐5. อื่นๆ ระบุ.....
4	ระดับการศึกษา ☐1. ไม่ได้เรียนหนังสือ ☐2. ประถมศึกษา ☐3. มัธยมศึกษา ☐4. อนุปริญญา ☐5. ปริญญาตรีขึ้นไป
5	อาชีพ ☐1. ไม่ได้ประกอบอาชีพ ☐2. เกษตรกร (ทำนา,ทำไร่,ทำสวน) ☐3. รับจ้างทั่วไป ☐4. ค้าขาย ☐5. อื่นๆ ระบุ.....
6	โรคประจำตัว ☐1. ไม่มีโรคประจำตัว ☐2. เบาหวาน ☐3. ความดันโลหิต ☐4. โรคหัวใจ ☐5. ความดันและเบาหวาน ☐6. อื่นๆ ระบุ.....
7	รายได้เฉลี่ยต่อเดือนของครอบครัว ☐1. รายได้น้อยกว่า 5,000 บาท ☐2. รายได้ 5,000-10,000 บาท ☐3. รายได้มากกว่า 10,000 บาทขึ้นไป
8	สิทธิการรักษาพยาบาล ☐1. ไม่มีสิทธิรักษาพยาบาล ☐2. บัตรทอง 30 บาท ☐3. สิทธิข้าราชการ ☐4. จ่ายเอง ☐5. ประกันสังคม ☐6. อื่นๆ ระบุ.....

9	ระยะทางจากบ้านถึงสถานบริการสาธารณสุข (สถานีอนามัย/โรงพยาบาล) ❑1. น้อยกว่า 5 กิโลเมตร ❑2. ระยะทาง 5 – 10 กิโลเมตร ❑3. ระยะทาง 11 – 15 กิโลเมตร ❑4. มากกว่า 15 กิโลเมตร
10	ยานพาหนะที่ใช้เดินทางประจำ ❑1. เดินเท้า ❑2. จักรยาน ❑3.จักรยานยนต์ ❑4. รถยนต์ ❑5. รถโดยสารประจำทาง❑6. อื่นๆ ระบุ.....

ตอนที่ 1 ทักษะด้านความรู้ ความเข้าใจในการป้องกันอุบัติภัยจากการจราจร

คำชี้แจงโปรดทำเครื่องหมาย ✓ ลงใน ❑ ที่ท่านเห็นว่าถูกต้องที่สุดเพียงข้อเดียว

ข้อ	ข้อความ
1	อุบัติภัยจราจรเป็นภัยที่สามารถป้องกันได้ ❑1. ใช่ ❑**2. ไม่ใช่**
2	อุบัติภัยจราจรนำมาซึ่งความบาดเจ็บและพิการ ❑1. ใช่ ❑**2. ไม่ใช่**
3	อุบัติภัยจราจร ทำให้เกิดภาระต่อครอบครัว ❑1. ใช่ ❑**2. ไม่ใช่**
4	อุบัติภัยจราจรเป็นเรื่องของดวงหรือกรรมเวรที่ป้องกันไม่ได้ ❑**1. ใช่** ❑2. ไม่ใช่
5	การเคารพกฎจราจรอย่างเคร่งครัด จะไม่เกิดอุบัติเหตุ ❑**1. ใช่** ❑2. ไม่ใช่
6	ผู้สูงวัย ต้องใช้ความระมัดระวังเพิ่มมากขึ้น หากต้องขับรถ ❑**1. ใช่** ❑2. ไม่ใช่
7.	ผู้สูงวัย มีความเสี่ยง เนื่องจากหู ตา ไม่ค่อยดี มีผลเสียต่อการตัดสินใจผิดพลาดได้ ❑**1. ใช่** ❑2. ไม่ใช่
8.	การขับขี่รถ โดยขาดความระมัดระวัง อาจจะทำให้เกิดอันตรายกับท่านได้ ❑**1. ใช่** ❑2. ไม่ใช่
9.	การขับขี่รถยนต์ให้ปลอดภัยควรกำหนดความเร็วไม่เกิน 80 กม ต่อ ชม ❑**1. ใช่** ❑2. ไม่ใช่
10.	ถนนที่ขรุขระ ก็ทำให้เกิดอันตรายได้ ❑**1. ใช่** ❑2. ไม่ใช่

11.	สภาพรถเก่า ก็ทำให้เกิดอันตรายได้ ☐**1. ใช่** ☐2. ไม่ใช่
12.	สิ่งแวดล้อมไม่ดี เช่น น้ำท่วม ฝนตกก็ทำให้เกิดอันตรายได้ ☐**1. ใช่** ☐2. ไม่ใช่

ทักษะด้านการเข้าถึงข้อมูลและบริการสุขภาพ, ทักษะการสื่อสารเพื่อเสริมสร้างการปฏิบัติ, ทักษะการตัดสินใจในการปฏิบัติ,

ทักษะการจัดการตนเองและทักษะการรู้เท่าทันสื่อ และการปฏิบัติ เกี่ยวกับการป้องกันอุบัติภัยจากการจราจร

คำชี้แจง โปรดทำเครื่องหมาย ✓ ลงในช่องความถี่ในการปฏิบัติที่ตรงกับความเป็นจริงที่สุด

3 คะแนน หมายถึง ปฏิบัติทุกครั้ง

2 คะแนน หมายถึง ปฏิบัติเป็นบางครั้ง

1 คะแนน หมายถึง ไม่ได้ปฏิบัติ

ข้อ	ข้อความ	ความคิดเห็น		
		ทุกครั้ง	บางครั้ง	ไม่ปฏิบัติ
ส่วนที่ 3 ทักษะด้านการเข้าถึงข้อมูลและบริการสุขภาพเกี่ยวกับการป้องกันอุบัติภัยจากการจราจร				
1	ท่านสามารถค้นหา สอบถามข้อมูลได้ทันที เกี่ยวกับข้อมูล สถิติการเกิดอุบัติภัยจราจรและการ**การป้องกัน**			
2	ท่าน พบสื่อ การสอน เพื่อการป้องกันอุบัติภัยจราจรเสมอ			
3	ท่านสามารถค้นหาข้อมูลเพื่อความปลอดภัยใน**การจราจร**ที่มีประโยชน์ต่อท่านได้ ทั้งเรื่อง รถ ถนนเส้นทาง ที่ปลอดภัย			
4	หากท่านมีอาการเจ็บป่วยจากการจราจรท่านสามารถเข้ารับการรักษา ณ สถานพยาบาลใกล้บ้าน			
5	ท่านมีการตรวจสอบข้อมูลเกี่ยวกับ**การป้องกันอุบัติภัยจากการจราจร**จากหลายๆ แหล่งเพื่อยืนยันความถูกต้อง			
6	ท่านมีการตรวจสอบข้อมูลการปฏิบัติตัวเกี่ยวกับ**การป้องกันอุบัติภัยจากการจราจร** เพื่อให้ได้ข้อมูลที่ถูกต้อง น่าเชื่อถือ			
ส่วนที่ 4 ทักษะการสื่อสารเพื่อเสริมสร้างการปฏิบัติตัวในการป้องกันอุบัติภัยจากการจราจร				

7	ท่านได้อ่านเอกสารเรื่องการปฏิบัติตัวใน**การป้องกันอุบัติภัยจากการจราจร** แล้วพบว่าไม่ค่อยเข้าใจเนื้อหาบ่อยครั้งแค่ไหน			
8	ท่านได้เล่าเรื่อง หรือพูดคุย เกี่ยวกับการปฏิบัติตัวใน**การป้องกันอุบัติภัยจากการจราจร** ให้กับครอบครัว เพื่อนหรือบุคคลอื่นเข้าใจบ่อยครั้งแค่ไหน			
9	ท่านมีการโน้มน้าวให้บุคคลอื่น ยอมรับข้อมูลที่ถูกต้อง หรือแนะนำให้สามารถปฏิบัติตัวในการ**การป้องกันอุบัติภัยจากการจราจร**ได้ บ่อยครั้ง			
10	ท่านสามารถสื่อสาร อธิบายช่องทางการรับรู้ข่าวสารเกี่ยวกับการปฏิบัติตัวใน**การป้องกันอุบัติภัยจากการจราจร**ให้กับบุคคลอื่นเข้าใจบ่อยครั้งแค่ไหน			
11	ท่านสามารถขอความช่วยเหลือจากบุคคลอื่นในการอ่านข้อมูลเกี่ยวกับการปฏิบัติตัวในการป้องกันอุบัติภัยจราจรจากสื่อสุขภาพต่างๆ			
12	ท่านฟังคำแนะนำเรื่องการปฏิบัติตัวในการป้องกันอุบัติภัยจราจรจากบุคคลต่างๆ			

ส่วนที่ 5 ทักษะการตัดสินใจในการปฏิบัติตัวเพื่อการป้องกันอุบัติภัยจากการจราจร				
13	หากท่านมีอาการผิดปกติเกี่ยวกับสายตาและหู ท่านจะยกเลิกการขับขี่			
14	หากบุคคลในครอบครัวท่านชักชวนท่านให้ไปทดสอบเพื่อทำใบขับขี่			
15	ท่านจะแนะนำบุคคลอื่นในการปฏิบัติตัวเพื่อป้องกัน**การป้องกันอุบัติภัยจากการจราจร**			
16	ท่านจะขอร้องลูกหลานขับรถให้ เมื่อมีภาระกิจต่างๆ			
17	ท่านมีพัฒนาและเสริมสร้างทักษะในการขับขี่ เพื่อ**การป้องกันอุบัติภัยจากการจราจร**			
18	ท่านจะยินดีหากเจ้าหน้าที่สาธารณสุข เชิญท่านมาเข้าอบรมเรื่องความปลอดภัยในการจราจร ท่านสามารถมาเข้าร่วมกิจกรรม			

ส่วนที่ 6 ทักษะการจัดการตนเองในการป้องกันอุบัติภัยจากการจราจร				
19	ท่านมีการประเมินหรือสังเกตทักษะในการขับขี่เพื่อความปลอดภัยของตนเองเสมอ			
20	ท่าน ต้องมีใบขับขี่ จึงจะกล้าขับขี่รถ			
21	ท่านสามารถปฏิบัติตัวตามกฎจราจรได้ถูกต้อง			
22	เมื่อท่านขับขี่รถ หากไม่มีตำรวจ ท่านก็ไม่ขับขี่เร็วเกินกำหนดได้			
23	เมื่อท่านจะศึกษาเส้นทางก่อนเดินทางเสมอ			

24	ท่านสามารถใช้เหตุผลในการวิเคราะห์ข้อดีและข้อเสียในการใช้รถใช้ถนน			
25	ท่านและบุคคลในครอบครัวท่านมีการพูดคุยและเตือนเรื่อความปลอดภัยในการใช้รถใช้ถนนเสมอ			

ส่วนที่ 7 ทักษะการรู้เท่าทันสื่อเกี่ยวกับการป้องกันอุบัติภัยจากการจราจร				
26	เมื่อท่านสนใ จข้อมูลเกี่ยวกับ**การป้องกันอุบัติภัยจากการจราจร** ท่านจะหาข้อมูลเพิ่มเติมที่ตามแหล่งข้อมูลต่างๆได้			
27	ท่านสามารถใช้โทรศัพท์สอบถามข้อมูลเกี่ยวกับ**อุบัติภัยจากการจราจร**จากแหล่งข้อมูลต่างๆ ได้ถูกต้อง			
28	ท่านสามารถแลกเปลี่ยนความรู้และแนวทาง**การป้องกันอุบัติภัยจากการจราจร**กับบุคคลในครอบครัวหรือผู้อื่น			
29	ท่านใช้เหตุผลก่อนตัดสินใจเชื่อ ข้อมูลเกี่ยวกับ**อุบัติภัยจากการจราจร**จากสื่อต่างๆ			
30	ท่านจะมีการวิเคราะห์ ประเมิน เนื้อหาเกี่ยวกับ**อุบัติภัยจากการจราจร**โดยไม่เชื่อในทันที บ่อยครั้งแค่ไหน			

ส่วนที่ 8 การปฏิบัติตัวในการป้องกันอุบัติภัยจากการจราจร		**ปฏิบัติ** ประจำ	นานๆ ครั้ง	ไม่เคย **ปฏิบัติ**
31	ก่อนข้ามถนนท่านมองซ้าย กว่าก่อนเสมอ			
32	ถ้านั่งรถยนต์ท่านจะคาดเข็มขัดนิรภัยเสมอ			
33	ถ้าขับขี่รถมอเตอร์ไซด์ท่านจะสวมหมวกกันน็อคเสมอ			
34	ถ้าขับรถหรือสนับสนุนให้มีการกำหนดความเร็วไม่เกิน 80 กมต่อชั่วโมง			
35	การขึ้นลงรถ ต้องรอให้รถจอดสนิทก่อน			
36	ถ้าเดินทางกลางคืน ท่านจะใส่เสื้อผ้าสีขาว หรือสีสว่างในการเดินถนน			
37.	ท่านสอนหรือแนะนำให้ลูกหลานคำนึงถึงความปลอดภัยในการจราจร			
38.	ท่านปฏิบัติตัวเป็นแบบอย่างที่ดีในการป้องกันอุบัติภัยจราจร			
39.	ท่านร่วมรณรงค์ในการป้องกันอุบัติภัยจราจร			
40.	ท่านคำนึงถึงการเคารพกฎจราจร			
41	เมื่อต้องการความช่วยเหลือเมื่อพบอุบัติเหตุ ท่านจะโทร 1669			

ขอบคุณค่ะ

In dept Interview

สำหรับผู้สูงวัยที่เคยมีประสบการณ์อุบัติภัยจราจร

ชื่อ.....บ้านเลขที่ .....หมู่บ้าน.....

พื้นที่ □ ในเขตเทศบาล □ นอกเขตเทศบาล ตำบล.....

อำเภอ.....จังหวัด.....

ลงชื่อ.....ผู้สัมภาษณ์ วันเดือนปี.....

1. ชื่อ…… 2.

อายุ……

3. สถานที่เกิด

อุบัติเหตุ……..

4. ลักษณะการบาดเจ็บของ

ท่าน…….

5. ความเสียหายของยานพาหนะ □ รถยนต์ □ รถมอเตอร์ไซด์

□ รถจักรยานยนต์ □ เดินถนน □ อื่นๆระบุ.....

6. วัน เวลาเกิดอุบัติเหตุโดยประมาณ…… □ ……

7. สาเหตุการเกิด

อุบัติเหตุ……

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8.ลักษณะการเกิด

อุบัติเหตุ……

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……

9.ทำอย่างไรจึงจะไม่เกิดอุบัติเหตุครั้งนี้ ในด้านตัวท่าน ด้านคู่กรณี ด้านสิ่งแวดล้อม ด้านส่วนรวม……..

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10.ข้อเสนอแนะเพื่อการป้องกันอุบัติภัยจราจรในผู้สูงวัย

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……

ผู้สัมภาษณ์.....วันเดือนปี.....

ชื่อ.....บ้านเลขที่ .....หมู่บ้าน.....

พื้นที่ ☐ ในเขตเทศบาล ☐ นอกเขตเทศบาล ตำบล.....

อำเภอ.....จังหวัด.....

ลงชื่อ.....ผู้สัมภาษณ์

วันเดือนปี.....

แบบสอบถามในการวิจัย

เรื่อง ลักษณะการเกิดอุบัติภัยจราจรของผู้สูงอายุในชุมชนเมืองและชุมชนชน

สอบถามเฉาะผู้สูงอายุที่เคยได้รับอุบัติภัยจราจร เท่านั้น

แบบสอบถามมี 3 ส่วน

1.ส่วนที่ 1 ข้อมูลด้านส่วนบุคคลของผู้สูงอายุ

2. ส่วนที่ 2 การเกิดอุบัติภัยในการจราจร

3. ข้อเสนอแนะเพื่อประโยชน์ในด้านอุบัติภัยจราจร

ส่วนที่ 1 ข้อมูลด้านส่วนบุคคลของผู้สูงอายุ

คำชี้แจง โปรดทำเครื่องหมาย ✓ลงใน ☐ และเติมข้อความในช่องว่างที่ตรงกับความเป็นจริงของท่านมากที่สุด

ข้อ	ข้อความ
1	เพศ ☐1. ชาย ☐2. หญิง
2	ปัจจุบันท่าน อายุ.....ปี (เต็ม)
3	สถานภาพสมรส ☐1. สมรส (แต่งงานแล้ว) ☐2. หม้าย (คู่สมรสเสียชีวิต) ☐3. หย่าร้าง (แต่งงานแล้วจดทะเบียนหย่า) ☐4. โสด (ยังไม่ได้แต่งงาน) ☐5. อื่นๆ ระบุ.....
4	ระดับการศึกษา ☐1. ไม่ได้เรียนหนังสือ ☐2. ประถมศึกษา ☐3. มัธยมศึกษา ☐4. อนุปริญญา ☐5. ปริญญาตรีขึ้นไป
5	อาชีพ ☐1. ไม่ได้ประกอบอาชีพ ☐2. เกษตรกร (ทำนา,ทำไร่,ทำสวน) ☐3. รับจ้างทั่วไป ☐4. ค้าขาย ☐5. อื่นๆ ระบุ.....
6	โรคประจำตัว ☐1. ไม่มีโรคประจำตัว ☐2. เบาหวาน ☐3. ความดันโลหิต ☐4. โรคหัวใจ ☐5. ความดันและเบาหวาน ☐6. อื่นๆ ระบุ.....
7	รายได้เฉลี่ยต่อเดือนของครอบครัว ☐1. รายได้น้อยกว่า 5,000 บาท ☐2. รายได้ 5,000-10,000 บาท ☐3. รายได้มากกว่า 10,000 บาทขึ้นไป
8	สิทธิการรักษาพยาบาล

	☐1. ไม่มีสิทธิรักษาพยาบาล ☐2. บัตรทอง 30 บาท ☐3. สิทธิข้าราชการ ☐4. จ่ายเอง ☐5. ประกันสังคม ☐6. อื่นๆ ระบุ.....
9	ระยะทางจากบ้านถึงสถานบริการสาธารณสุข (สถานีอนามัย/โรงพยาบาล) ☐1. น้อยกว่า 5 กิโลเมตร ☐2. ระยะทาง 5 – 10 กิโลเมตร ☐3. ระยะทาง 11 – 15 กิโลเมตร ☐4. มากกว่า 15 กิโลเมตร
10	ยานพาหนะที่ใช้เดินทางประจำ ☐1. เดินเท้า ☐2. จักรยาน ☐3.จักรยานยนต์ ☐4. รถยนต์ ☐5. รถโดยสารประจำทาง☐6. อื่นๆ ระบุ.....

ข้อ	ข้อความ
11	บุคคลที่ดูแลท่านขณะเจ็บป่วย ☐1. ดูแลตนเอง ☐2. สามี/ภรรยา ☐3. บุตร/หลาน ☐4. เพื่อนบ้าน/อสม.
12	ท่านเคยเข้ารับการรักษาพยาบาลจากการเกิดอุบัติเหตุ ☐1. ไม่เคยเข้ารับการรักษาพยาบาล ☐2. เคยเข้ารับการรักษาพยาบาล จำนวน.....ครั้ง
13	ท่านเคยรับการรักษาพยาบาล นานแค่ไหน ☐1. เคยเข้าโรงพยาบาลแล้วกลับบ้าน ☐2. เคยเข้ารับการรักษาพยาบาลนอนโรงพยาบาล.....วัน
14	ท่านบาดเจ็บ อย่างไร ☐1. บาดเจ็บเล็กน้อย..... ☐2. บาดเจ็บมากคือ.....

ส่วนที่ 2 การเกิดอุบัติภัยในการจราจร

ข้อ	ข้อความ

1	อุบัติภัยจราจรที่เกิดขึ้น มีระดับรุนแรงหรือไม่ ☐1. รุนแรงมาก ☐**2. รุนแรงปานกลาง** ☐**3. ไม่รุนแรง** อธิบายรายละเอียด ....
2	อุบัติภัยจราจรใครเป็นฝ่ายผิด ☐1. คู่กรณี ☐**2. ตัวท่าน** ☐**2. ทั้งสองฝ่าย**
3	อุบัติภัยจราจรที่เกิดขึ้น เกี่ยวข้องกับปัจจัยใดมากที่สุด ☐1.ตัวบุคคล ☐**2. ถนน** ☐**3. รถ** ☐**4. สิ่งแวดล้อม**
4	อุบัติภัยจราจรที่เกิดขึ้น ท่านได้รับการช่วยเหลืออย่างไร ☐**1. รถพยาบาล** ☐2. ญาติและคนรู้จัก ☐3. ตำรวจ ☐4. อื่นๆระบุ .....
5	ถ้าท่าเคารพกฎจราจรอย่างเคร่งครัด จะไม่เกิดอุบัติเหตุในครั้งนี้ ☐**1. ใช่** ☐2. ไม่ใช่
6	ความเสียหายที่ได้รับในการเกิดอุบัติภัยครั้งนี้ ☐**1.เฉพาะคน** ☐2. เฉพาะรถ ☐3. ทั้งรถทั้งคน อธิบาย ....
7.	อุบัติเหตุครั้งนี้ ถ้ามีการปรับปรุงระบบจราจรให้ดีกว่านี้ จะไม่เกิดอุบัติเหตุขึ้น ☐**1. ใช่** ☐2. ไม่ใช่
8.	การขับขี่รถไม่ระมัดระวังของท่าน ทำให้เกิดอุบัติภัยในครั้งนี้ ☐**1. ใช่** ☐2. ไม่ใช่
9.	ฝ่ายตรงข้ามไม่ระมัดระวัง จึงเกิดอุบัติภัยในครั้งนี้ ☐**1. ใช่** ☐2. ไม่ใช่
10.	ถนนที่ไม่ดี คือ.....ทำให้เกิดอุบัติเหตุ ☐**1. ใช่** ☐2. ไม่ใช่
11.	อุบัติเหตุครั้งนี้ ทำให้ท่านเข้า โรงพยาบาลนาน .....วัน ☐**1. ไม่เข้าโรงพยาบาล** ☐2. ไปทำแผลแล้วกลับบ้าน ☐3. เข้ารักษาในโรงพยาบาล.....วัน

12.	ลักษณะความรุนแรงของสุขภาพ หลังการเกิดอุบัติเหตุ ☐**1. ไม่มีการบาดเจ็บ** ☐2. บาดเจ็บเล็กน้อย ☐3. ทำแผล ☐**4. Minor injuries** ☐5. ผ่าตัด ☐6.เข้าห้องไอซียู

3. ข้อเสนอแนะเพื่อประโยชน์ในด้านอุบัติภัยจราจร

3.1 ด้านถนน

ข้อ	ข้อความ
1	ควรมีการตรวจสอบถนน เพื่อความปลอดภัย ☐1. ไม่ให้เป็นหลุมเป็นบ่อ ☐**2. มีสัญญาณเตือน ทางแยก ทางร่วม** ☐**3. มีสัญญาณไฟแดง** ☐**4 มีตำรวจจราจร หรืออาสาจราจรตามจุดที่สำคัญ** อธิบายรายละเอียดเพิ่มเติม ....
2	ควรมีการตรวจสอบรถ ยานพาหนะ เพื่อความปลอดภัย ☐1.ไม่นำรถเก่าเกิน 10 ปีมาใช้ ☐**2. ไม่นำรถเพื่อการเกษตรมาใช้** ☐**3. มีการตรวจสภาพรถทุกปี**
3	ควรจัดสิ่งแวดล้อม เพื่อความปลอดภัย ☐1.มีสัญญาไฟจราจร ☐**2. มีที่ข้ามถนน เหมาะสม** ☐**3. มีช่องทางจราจรที่กว้างพอ ไม่มีสิ่งกีดขวาง**
4	ส่งเสริมพฤติกรรมที่ปลอดภัยของคน ☐**1. ไม่ขับรถเร็วเกินกำหนด** ☐2. เมาไม่ขับ ☐3. ไม่ใช้โทรศัพท์ขณะขับรถ ☐4.รักษาสภาพร่างกายให้แข็งแรงมีความพร้อมในการขับขี่ ☐5..รักษาสภาพจิตใจให้ดี ไม่ง่วง ไม่โกรธ ไม่หงุดหงิดขณะขับรถ อธิบายเพิ่มเติม.....

5	ควรส่งเสริมการเคารพกฎจราจรอย่างเคร่งครัด ให้เคร่งครัด ☐**1. ใช่** ☐2. ไม่ใช่
6	ควรรณรงค์การป้องกันอุบัติภัยจราจรให้สม่ำเสมอ ☐**1.สื่อที่เร้าความสนใจ** ☐2. มีความต่อเนื่อง สม่ำเสมอ ☐3. รณรงค์ตลอดปี อธิบายเพิ่มเติม ....
7.	ผู้นำชุมชน ให้ความสำคัญมากขึ้น ในการป้องกันอุบัติภัยจราจร ☐**1. ใช่** ☐2. ไม่ใช่
8.	ระบบสื่อสารที่มีประสิทธิภาพมากขึ้น ☐**1. ใช่** ☐2. ไม่ใช่
9.	ระบบส่งต่อเพื่อรับการรักษาให้มีประสิทธิภาพมากขึ้น ☐**1. ใช่** ☐2. ไม่ใช่
10.	ควรจัดระบบความปลอดภัยในการจราจรให้ผู้สูงอายุโดยเฉพาะ ☐**1. ใช่** ☐2. ไม่ใช่ อธิบายเพิ่มเติม .....
11.	ควรมีการแสดงสถิติ การเกิดอุบัติเหตุให้ประชาชนเห็นอย่างกว้างขวาง เพื่อเกิดความตระหนัก ☐**1. ใช่** ☐2. ไม่ใช่
12.	สร้างจิตำสำนึกเพื่อส่วนรวมในการใช้รถใช้ถนนให้มากขึ้น โดย ☐**1. รณรงค์ตั้งแต่ครอบครัว** ☐2. **รณรงค์ตั้งแต่อนุบาล** ☐3. **รณรงค์ทุกระดับการศึกษา อย่างต่อเนื่อง** ☐**4. บริษัทจำหน่ายรถ ต้องให้ความสำคัญในความปลอดภัยทุกครั้งเมื่อมีจำหน่ายและร่วมรับผิดชอบตามสมควร**