Compliance with the Law on Car Seat-Belt Use in Four Cities of Thailand

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Abstract

Surveys to determine the scope of compliance with the law requiring seat-belt use in Thailand were conducted by observation and interviews with drivers in four cities: namely, Bangkok Metropolis, Chiang Mai, Phuket and Nakhon Ratchasima. The work was carried out in two separate sessions: during the first month following enactment of the law, and six months after its enactment. The sample comprised 46,949 vehicles in the first session (January 1996) and 76,188 vehicles in the second session (July 1996). The results showed that 42.7 per cent of drivers used seat-belts in January and 30.7 per cent in July. When the data were disaggregated according to cities, it was found that more Bangkok drivers complied with the seat-belt law than in Phuket, 24.6 per cent; Chiang Mai, 22.1 per cent; and Nakhon Ratchasima, 18.3 per cent relatively low compliance rate was encountered among drivers of pick-up trucks (including those with modified roofs) and vans, particularly farmers and the self-employed. Women drivers tended to abide by the law more often than men (OR=1.7, 95%CI=1.12, 1.23). Inter-city travelers wore seat-belts more than those traveling in the city (OR=1.74, 95%CI=1.68, 1.80). About one-fifth of non-users or those who rarely used seat-belts were unsure of the effectiveness of seat-belts in preventing serious injury or death in the case of an accident. Discomfort associated with using seat-belts and the perception that they were rendered unnecessary because of slow traffic in cities were other reasons for non-compliance in 50.6 per cent and 43.9 per cent of cases, respectively. The decline in compliance with the law six months after its enactment indicates that there may be a problem with uniform and consistent enforcement of the law.

Key word : Seat Belt, Seat-Belt Use Rate, Observational Survey, Predictor for Seat-Belt Use

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Traffic injuries are the third leading cause of death in Thailand. Each year, motor-vehicle-related trauma results in approximately 18,000 deaths and costs 69,656.2 million baht in economic loss or 2.23 of the Gross National Product[1,2]. The use of seat-belts has been shown to be one of the most effective methods in preventing injuries from motor-vehicle crashes and reducing deaths and serious injury by 43-52 per cent[3-5]. In addition, wearing safety belts substantially decreased enormous costs associated with motor-vehicle injuries[6].

Many developed countries have enacted laws to improve the seat belt use rates. Most countries have succeeded in improving the use rate over 50 per cent and reducing fatalities and serious injuries about 40-50 per cent[7]. In Britain, the seat belt law was enacted in early 1983, the seat belt use rate increased from voluntary belt use rates of 30 per cent to 90 per cent. Death and serious injury to front-seat occupants casualties declined by 25 per cent the year after introduction of the laws[8]. However, worldwide experience with the compliance of seat-belt use varies. For instance, in the United States, the belt use law was enacted by 26 states and the District of Columbia in 1986. After the law went into effect, the use rate increased from less than 20 per cent to 50-70 per cent in the first month, then in subsequent month in most states, rates dropped to below 50 per cent, and was 68 per cent in 1995 and 1996[9,10].

In 1996, Thailand enacted a law that required all 4- wheel - motor vehicles' drivers and front-seat occupants to use seat-belts. This legislation took effect from January 1, 1996 for all new vehicles registered after October 7, 1995, and for old vehicles registered before October 8; 1995, from January 1998. At present, there is no surveillance data to show the use rate of seat-belts before and after the enactment in Thailand. The information on the proportion of seat-belt use rate is of importance for monitoring the effectiveness of public campaign, enforcement and further public action. This study aimed to assess the seat-belt use rate, knowledge and attitude towards seat-belt use before and after enactment of the law in Thailand.

MATERIAL AND METHOD

Material (Study samples)

Two separate surveys were conducted six months apart, i.e. during the first month following enactment of the law on car seat-belts (January 1996), and six months after its enactment (July 1996). The study sites were four main cities in Thailand: namely, Bangkok Metropolis (a city in the central region), Chiang Mai (a northern city), Nakhon Ratchasima (a north-eastern city), and Phuket (a southern city). The sample comprised 46,949 observed cars, 5321 interviewed drivers in the first session, and 76,188 observed cars, 5205 interviewed drivers in the second session.

Method

Each survey comprised two different methods of data collection: an observation of automobile occupants to estimate the prevalence of seat-belt use among drivers and front-seat passenger; and an interview to determine the attitudes toward the use of seat-beats.

The one-week observational survey was conducted in the morning from 7:00 A.M.-9:00 A.M. and from 10:00 A.M. - noon. In Bangkok, the observation was made at 10 city intersections randomly selected from 36 districts in the business sectors of the city, and three other intersections at principal outlets directing to the north, west and south of the city (the tollgate to Rangsit, Bangyai intersection, and Puthamonthon line II intersection, respectively). In the other three cities, the observational survey was conducted at 7-14 city intersections, and 1-4 principal exits from the city. At each site, the roadside observational survey operation involved 10 two-person teams in each city. The drivers and front-seat occupants of vehicles that stopped at the intersections traffic lights were observed. The observers took notes of the vehicles in the first to the third line together with the drivers' and front seat occupants' use of seat belts. Each front-seat occupant was counted separately. The vehicles studied involved four-wheel automobiles as follows: personal cars, pick-up trucks, modified pick-up trucks, vans and taxi cabs (taxis existed only in Bangkok). During the 4 - hour - day of 7-day survey, occupants of 46,949 vehicles in January 1996, and 76,188 vehicles in July 1996 were observed.

In the two-week interview survey, 5,321 drivers were interviewed in January and 5,205 in July. The interviews took place at gas stations and public places (malls, banks, public transport stations). In Bangkok, 10 gas stations in the same previously observed districts were included, while in the other three cities, all gas stations and public

places were included. The interviews were conducted by teams of trained interviewers. The types of vehicles studied were similar to the observational survey. After the vehicles entered the gas stations for service or public places for parking, teams of trained interviewers observed the drivers' use of seat belts. Interviews were conducted only if that vehicle had seat-belts installed. The interviewers asked the drivers' attitude regarding seat-belt use and filled in a questionnaire form. In each city, the sample size of approximately 300 was allocated for each type of vehicle.

Statistical Analysis

The prevalence and 95 per cent confidence interval (CI) were calculated by using Epiinfo version 6.04 software. The two prevalences being compared were considered significantly different when their 95 per cent CI did not overlap. SPSS-PC software was used to analyse factors related to use of seat belts, and logistic regression method was applied to control the confounding factors and calculate Odds Ratio (OR). Dependent variable was seat-belt use,while independent variables were sex, site, day of the week, hour of the day, types of the vehicle and provinces.

RESULTS

Observational survey

The two surveys revealed that 42.7 per cent of drivers used seat-belts in the first month of law enactment and 30.7 per cent six months later. In January, the seat-belt use rates in Bangkok, Chiang Mai, Nakhon Ratchasima and Phuket were 64.9 per cent, 25.9 per cent, 22.4 per cent and 30.6 per cent respectively and six months later the use rates declined to 42.1 per cent, 22.1 per cent, 18.5 per cent and 24.6 per cent respectively. Bangkok, even having the highest use rate, had the greatest decline change rate (-35.1%). In January, the seat-belt use rate among drivers of different types of vehicles : car, pick-up, modified pick-up, van, and taxi were 53.5

Table 1. Proportion of drivers wearing seat-belts by characteristics in 2 observational surveys of 4-cities in Thailand, January and July 1996.

Characteristics	January		July		
	No. Observed	% use (95% CI*)	No. Observed	% use (95% CI*)	% change
Drivers	46949	42.7 (42.2, 43.1)	76188	30.7 (30.4, 31.1)	-28.1
Sex					
Male	40098	41.7 (41.2, 42.2)	65455	29.8 (29.4, 30.1)	-28.5
Female	6851	48.5 (47.4, 49.7)	10728	36.7 (35.8, 37.6)	-24.3
Site					
In-cities	23532	36.2 (35.6, 36.8)	37181	26.2 (25.8, 26.7)	-27.6
Interurban	23417	49.1 (48.5, 49.8)	39007	35.0 (34.6, 35.5)	-28.7
Time of day					
7 - 9 A.M.	24511	42.4 (41.8, 43.0)	37923	32.8 (32.3, 33.3)	-22.6
10 A.M. - noon	22438	43.0 (42.4, 43.6)	38265	28.7 (28.3, 29.2)	-33.3
Day of week					
Weekday	33720	41.4 (40.8, 41.9)	54965	30.5 (30.1, 30.9)	-26.3
Weekend	13229	46.1 (45.2, 46.9)	21223	31.3 (30.7, 31.9)	-32.1
Type of vehicle					
Car	18285	53.5 (52.7, 54.2)	30439	40.6 (40.0, 41.2)	-24.1
Pick-up	15456	26.5 (25.8, 27.2)	24107	20.9 (20.4, 21.4)	-21.1
Modified-car	6372	32.0 (30.9, 33.2)	11960	22.1 (21.3, 22.8)	-30.9
Van	3352	31.4 (29.8, 33.0)	4904	23.3 (22.1, 24.5)	-25.8
Taxi	3484	88.0 (86.9, 89.1)	4754	47.1 (45.6, 48.5)	-46.5
City					
Bangkok	20255	64.9 (64.3,65.6)	34603	42.1 (41.6, 42.6)	-35.1
Chiang Mai	9974	25.9 (25.0, 26.7)	14988	22.1 (21.4, 22.8)	-14.7
Nakhon Ratchasima	9899	22.4 (21.6, 23.3)	16366	18.5 (17.9, 19.1)	-17.4
Phuket	6821	30.6 (29.5, 31.7)	10231	24.6 (23.7, 25.4)	-19.6

* Confidence interval

per cent, 26.5 per cent, 32.0 per cent, 31.4 per cent and 88.0 per cent respectively, and six months later the rate had dropped to 40.6 per cent, 20.9 per cent, 22.1 per cent, 23.3 per cent and 47.1 per cent respectively. The proportion of those using seat belts was lower among males and in-city traveling (Table 1).

For front-seat occupants, only 16.5 per cent wore seat belts in July, dropping from 37 per cent in January. The seat-belt use rates of front-seat occupants in Bangkok, Chiang Mai, Nakhon Ratchasima and Phuket were 60.9 per cent, 13.9 per cent, 13.4 per cent and 24.3 per cent respectively in January and six months later the use rates declined to 23.7 per cent, 9.9 per cent, 8.3 per cent and 17.6 per cent respectively. Front seat occupants with drivers wearing seat belts were more likely to wear seat belts than those with drivers not wearing seat belts (48.8% *vs* 2.5%).

Interview survey

In January, a low proportion of using seat belts was reported by 31.7 per cent of persons < 26 years of age and 32.0 per cent of those >45 years. But in July, the use rate among the youngest group increased to 34.5 per cent, while the oldest group declined to 30.8 per cent, and those of 26 - 35 and 36 - 45 years of age decreased slightly to 36.1 per cent and 34.2 per cent respectively. (Table 2) The percentage of users was also lower among certain occupations in July such as, farmers and self-employed business people (19.6%), merchants (29.2%), government agency drivers (30.7%), company drivers (39.1%), government officers (39.1%), and taxi drivers who had the highest rate in January of 83.3 per cent which declined to 60.7 per cent in July (Table 2).

Attitude towards seat-belt use

Table 3 shows the attitude regarding use of seat-belts among regular users and seldom or nonusers, the regular users (96.7%) were more likely than nonusers (73.0%) to recognize that wearing seat belts decreased their risk of injury in a motor vehicle collision. In July, more nonusers believed that wearing seat-belts increased the risk of injury (4.4% *vs* 0.6%) and more nonusers were unsure about the effectiveness of protection while wearing a seat-belt (18.2% *vs* 2.0%). (Table 3) Table 4 demonstrates the reasons for not wearing a seat-belt in seldom and nonusers. More nonusers than seldom users reasoned that wearing seat-belts caused discomfort (50.6% *vs* 1.4%), not necessary while driving a short distance (43.9% *vs* 3.7%), fear of entrapment (14.5%, 0.2%) and forgetfulness (17.4% *vs* 1.8%). The proportion of misconception in seat-belt use among nonusers increased in the second survey.

Table 2. Proportion of drivers wearing seat-belts by characteristics in 2-interviewed surveys of 4-cities in Thailand, January and July 1996.

Characteristics	January		July		
	No.	% use (95% CI*)	No.	% use (95% CI*)	% change
Age (years)					
< 26	674	31.7 (28.2, 35.3)	631	34.5 (30.8, 38.4)	+8.8
26-35	2263	39.7 (37.7, 41.7)	2166	36.1 (34.1, 38.2)	-9.1
36-45	1814	35.2 (33.0, 37.4)	1644	34.2 (32.0, 36.6)	-2.8
> 45	582	32.0 (28.2, 35.7)	764	30.8 (27.0, 34.2)	-3.8
Occupation					
Government service drivers	198	34.3 (27.7, 41.0)	218	30.7 (24.7, 37.3)	-10.5
State enterprise drivers	133	44.4 (35.9, 52.8)	151	41.7 (33.8, 50.0)	-6.1
Company drivers	725	25.4 (22.2, 28.5)	594	39.1 (35.1, 43.1)	+53.9
Taxi drivers	317	83.3 (79.2, 87.4)	323	60.7 (55.1, 66.0)	-27.1
Government officers	1099	39.9 (37.0, 42.7)	1034	39.0 (36.0, 42.0)	-2.3
Merchants	1680	31.4 (29.2, 33.7)	1611	29.2 (27.0, 31.5)	-7.0
Farmers, Self-employed	507	24.6 (21.0, 28.7)	607	19.6 (16.6, 23.0)	-20.3
Company officers	659	40.8 (37.1, 44.6)	662	37.3 (33.6, 41.1)	-8.6
New vehicles	3682	29.4 (28.0, 30.9)	3890	30.8 (29.4, 32.3)	+4.8
Old vehicles	619	47.8 (43.9, 51.8)	1312	45.4 (42.7, 48.2)	-5.0

* Confidence interval

Predictors of seat-belt use

Logistic regression was employed to control confounding factors in order to indicate which factors were associated with the use of seat-belts. (Table 5) Female drivers were more likely than male drivers to be buckled up (OR. = 1.17, 95%CI= 1.12, 1.23). Drivers of vehicles traveling to interurban areas were more likely than those traveling in cities to wear seat-belts (OR=1.74, 95%CI= 1.68, 1.80), and those driving in the early morning (7-9:00 A.M.) were found to be buckled up more often than those driving at 10:00 A.M. - noon (OR= 1.18, 95%CI=1.14, 1.22). Drivers of pick-ups, modified pick-ups and vans were less likely than those of personal cars to be buckled up (OR=0.42, 0.46, and 0.42 respectively). Finally, drivers in Chiang Mai, Nakhon Ratchasima and Phuket were less likely to wear seat belts than drivers in Bangkok (OR = 0.44, 0.35, and 0.58 respectively). The belt use rate did not vary by day of the week. From the interviewed data, by using logistic regression analysis, it was found that there was no significant difference of seat belt use rate among various occupations and age groups. However, drivers of new vehicles (registered after October 7, 1996) were more likely than those of old vehicles (registered before October 7, 1996) to be wearing seat-belts (OR=1.9, 95%CI=1.64, 2.2).

Table 3. Attitude reported in an interview survey regarding use of seat-belts, 4-cities, Thailand, January and July 1996.

How does wearing a seat belt affect risk of injury?	Regular users		Seldom and nonusers	
	Jan. %	July %	Jan. %	July %
Decreases risk	97.6	96.7	77.8	73.0
Increases risk	2.3	0.6	3.1	4.4
No effect	0.5	0.6	2.0	3.0
Not sure	2.4	2.0	16.7	18.2

Table 4. Reason for not wearing seat-belts among seldom and nonusers, 4-cities, Thailand, January and July 1996.

Why do you not wear a seat-belt?	Seldom users		Nonusers	
	Jan. %	July %	Jan. %	July %
Uncomfortable	19.4	1.4	46.5	50.6
Not necessary for driving in city, short distance	38.3	3.7	34.7	43.9
Fear of entrapment	3.4	0.2	9.0	14.5
Forgetfulness	21.0	1.8	10.3	17.4

Table 5. Adjusted Odds Ratio (OR) of factors related to seat-belt use of drivers in 4-cities, Thailand July, 1996.

Characteristics	ß	SE	OR.	95% CI
Sex				
Female	0.1603	0.0241	1.17	(1.12, 1.23)[a]
Site				
Interurban	0.553	0.0173	1.74	(1.68, 1.80)[b]
Time of day				
7-9:00 A.M.	0.1663	0.0166	1.18	(1.14, 1.22)[c]
Type of vehicle				
Pick-up	-0.8592	0.0209	0.42	(0.41, 0.44)[d]
Modified pick-up	-0.7716	0.0264	0.46	(0.44, 0.48)[d]
Van	-0.8604	0.0372	0.42	(0.39, 0.45)[d]
Taxi	0.0335	0.0335	1.03	(0.97, 1.10)[d]
Province				
Chiang Mai	-0.8260	0.0238	0.44	(0.42, 0.46)[e]
Nakhon Ratchasima	-1.0392	0.0241	0.35	(0.34, 0.37)[e]
Phuket	-0.5389	0.0268	0.58	(0.55, 0.61)[e]

Note OR = Odds Ratio, CI = Confidence Interval
[a] *vs* Male, [b] *vs* city, [c] *vs* 10 A.M.-noon, [d] *vs* car, [e] *vs* Bangkok.

Table 6. Adjusted Odds Ratio (OR) of factors related to seat-belts use of front-seat passengers in 4-cities, Thailand July, 1996.

Characteristics	ß	SE	OR.	(95% CI)
Drivers wearing belts	3.4499	0.486	31.50	(28.63, 34.64)[a]
Site				
Interurban	0.6384	0.0418	1.89	(1.74, 2.05)[b]
Weekend	-0.1989	0.0413	0.82	(0.76, 0.89)[c]
Type of vehicle				
Pick-up	-0.6058	0.0471	0.55	(0.5, 0.6)[d]
Modified pick-up	-0.5373	0.0588	0.58	(0.52, 0.66)[d]
Van	-0.7437	0.0855	0.47	(0.4, 0.56)[d]
Taxi	-1.2515	0.0874	0.29	(0.24, 0.34)[d]
Province				
Chiang Mai	-0.4332	0.0607	0.65	(0.58, 0.73)[e]
Nakhon Ratchasima	-0.7064	0.0566	0.49	(0.44, 0.51)[e]
Phuket	0.2711	0.0563	1.3	(1.17, 1.46)[e]

Note OR = Odds Ratio, CI = Confidence Interval
[a] *vs* drivers not wearing belt, [b] *vs* in cities, [c] *vs* weekday, [d] *vs* car, [e] *vs* Bangkok.

Front-seat passengers in vehicles with drivers who were wearing belts were far more often buckled up than those with drivers not wearing belts (OR=31.50, 95%CI=28.63, 34.64, Table 6). Passengers of vehicles traveling to interurban cities were more likely than those traveling in cities to be buckled up (OR=1.89, 95%CI=1.74, 2.05), and those traveling on weekends were found to be wearing belts less often than were those traveling on weekdays. Front-seat passengers of vehicles in Chiang Mai and Nakhon Ratchasima were less likely than those in Bangkok to be wearing seat belts (OR= 0.65, and 0.49 respectively), but passengers in Phuket were buckled up more frequently than were passengers in Bangkok (OR= 1.3 95%CI= 1.17, 1.46). Seat belt use by front-seat passengers was not significant by difference by time of day.

DISCUSSION

Six months after the enactment, seat-belts use was lower than it was in the first month after the law took effect (declined from 42.7% to 30.7%). Previously, a self-reported survey in 1994 found that voluntary seat-belt use was 16 per cent in males and 15 per cent in females[11]. The results from this study also suggest that persons in these 4 cities were less likely to use seat-belts while in vehicles traveling within cities than while traveling to interurban cities. This finding is similar to other studies in Spain and Budapest[12,13]. The reasons that the use rate was low might be - 1) the law provided a 2-year exemption for old vehicles registered before October 7, 1995, it was not easy for policemen to differentiate between old and new cars, therefore, it was not practical to enforce the law during this period; 2) a portion of persons were aware of the advantages of wearing seat-belts when traveling longer distances but unaware of the risks for a traffic accident associated with shorter distances traveled within cities. 3) the nonuser had a misconcept about the benefit of wearing a seat belt when a traffic accident occurred.

The present study demonstrates that passengers were less likely than drivers to wear a seat belt and similar to drivers, their belt use rate declined. In addition, the front-seat passengers who were traveling with non-buckled up drivers were far less likely to buckle up than those traveling with belted drivers. This infers that drivers strongly influence the behavior of passengers about wearing a belt. Public education and enforcement of seat-belt use towards drivers should benefit the compliance among passengers as well.

It is of concern that drivers of pickups, modified pick-ups and vans were less likely to wear seat belts than those of personal cars. Young and old age group drivers were less likely to wear seat belts than were the middle age group, also the low socioeconomic status (farmers, self-employed business people) were found to be less frequently buckled up than those with other occupations. It should be noted that government agency drivers

who should be the model for a public campaign also had a low percentage of seat-belt use. This finding should help indicate the target group for a public education campaign. Furthermore, the finding of seat-belt use rate being lower among the other three cities than in Bangkok, might be due in part to the fact that Bangkok has relatively more enforcement than other cities especially among taxi drivers who were subjected to be stopped and fined if they failed to compile with any regulation.

The direct observation survey provided valid estimates of seat-belt use. The interview survey elucidated knowledge and attitude related to safety belt use. This study indicated that a positive attitude towards seat-belt benefit was most strongly associated with safety belt use. The seldom and nonusers were more likely to have the misconception that wearing a seat-belt might risk entrapment in vehicles after a crash. Other reasons among the nonusers also included, unnecessary for driving in cities, discomfort and forgetfulness. These findings should lead to a health education program among these risk groups for their better understanding about the benefit of seat-belts and encourage them to use seat-belts.

There are some limitations that should be mentioned, this study only reflects daytime seat-belt use. Initially, the study team tried to observe at night time and found that it was difficult to observe seat-belt wearing during dim light. Further study might pay attention to the methodology of how to monitor the use rate at the night time because this group may have different behavior from daytime drivers. The interview survey in this study could not include some information, due to the limited available time of the drivers. Some of the factors which were found to be associated with belt use in other studies include education level, marital status and behavioral risks[12,13].

Experience from other countries has shown that both enforcement and publicity programs would increase compliance with seat-belt laws, thereby making the laws more successful. In the United States, seat belt use typically increased initially, then decreased modestly in the absence of enforcement, and finally stabilized at 40-50 per cent. The use rate varied by states due to different degrees of enforcement. Public information and education programs without accompanying enforcment have been ineffective in changing these postlaw stabilization rates[14]. Therefore, to increase seat belt use, the government (by responsible agencies) should set a goal of seat-belt use rate to be achieved in a certain time followed by a strategic plan about a public education campaign and a law enforcement act.

SUMMARY

The average seat-belt use rate in 4 cities was 42.7 per cent in the first month of law enactment and was 30.7 per cent six months later. The seat-belt rate had a tendency to continually decline if there was no strong measure of enforcement. Low seat-belt use rate was found in males, pick-ups, van drivers, and persons driving in cities. A high proportion of nonusers was also found in farmers and self-employed business people. The seat-belt use rate was lower in three cities other than in Bangkok. There were misconceptions among unbuckled-up drivers about not wearing seat belts when driving in cities or short distances, and fear of entrapment by the belt when a traffic accident crashes occurs. To improve compliance with the seat-belt law, the government should increase intense, continual campaigns combining public education about the benefit of seat belt use and strict enforcement. A periodic observational survey conducted to assess change in safety belt use in major cities is also necessary.

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อัตราการคาดเข็มขัดนิรภัยของผู้ขับขี่รถยนต์ใน 4 จังหวัด ประเทศไทย พ.ศ. 2539

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การศึกษานี้ได้สำรวจอัตราการคาดเข็มขัดนิรภัยในเดือนแรกที่กฎหมายบังคับใช้ให้มีการคาดเข็มขัดนิรภัยในคนขับรถยนต์และผู้โดยสารด้านหน้า และใน 6 เดือนต่อมา พื้นที่การศึกษา 4 จังหวัดคือ กรุงเทพมหานคร, เชียงใหม่, ภูเก็ต และนครราชสีมา สำรวจโดยการสังเกตและการสัมภาษณ์ คนขับรถยนต์ 5 ประเภทคือ รถเก๋งส่วนบุคคล, รถกระบะ, รถกระบะดัดแปลง, รถตู้ และแท็กซี่ ในการสำรวจครั้งแรกเดือน มค. 2539 ได้สังเกตจำนวนตัวอย่างรวม 46,949 คัน และครั้งที่ 2 เดือน กค. 2539 จำนวน 76,188 คัน ทำการสัมภาษณ์ คนขับรถ 5,321 คนในเดือน มค. และ 5,205 คนในเดือน กค. ปีเดียวกัน ผลการศึกษาพบว่า อัตราการคาดเข็มขัดในคนขับรถยนต์เฉลี่ย 4 จังหวัด เท่ากับ 42.7% ในเดือนแรกและลดเหลือ 30.7% ใน 6 เดือนต่อมา ส่วนอัตราการคาดในผู้โดยสารด้านหน้าพบว่าในเดือนแรกเท่ากับ 37.0% และลดลงเป็น 16.5% ใน 6 เดือนต่อมา อัตราการคาดเข็มขัดนิรภัยต่ำสุดในจังหวัดนครราชสีมา (18.25%), รองลงมาเชียงใหม่ (22.1%), ภูเก็ต (24.6%) สูงสุดในกทม. (42.1%) อัตราการคาดต่ำในคนขับรถประเภทกระบะ, กระบะดัดแปลง, รถตู้ และในคนอาชีพ อาชีพเกษตรกรและอาชีพรับจ้างงานเหมา อัตราการคาดในเพศหญิงเป็น 1.17 เท่าของเพศชาย (95% CI.OR= 1.12, 1.23) คนขับรถวิ่งระหว่างเมืองคาดเป็น 1.74 เท่าของคนขับในเมือง (95% CI. OR=1.68, 1.80) ความคิดเห็นเกี่ยวกับการคาดเข็มขัดพบว่าร้อยละ 18 ของกลุ่มคนที่ไม่คาดประจำและไม่คาดเลยไม่แน่ใจว่าการคาดเข็มขัดช่วยป้องกันอันตรายได้จริงเวลาเกิดอุบัติเหตุ ส่วนเหตุผลที่ไม่คาดเข็มขัดเพราะว่าอึดอัด (50.6%), และไม่จำเป็นต้องคาดเนื่องจากขับรถระยะทางใกล้ (43.9%) จะเห็นว่าการคาดเข็มขัดนิรภัยยังมีอัตราต่ำและแนวโน้มลดลง จึงควรมีการบังคับใช้กฎหมายอย่างจริงจังร่วมกับการให้ความรู้, ความเข้าใจที่ถูกต้องเพื่อป้องกันการบาดเจ็บรุนแรงและลดอัตราการเสียชีวิตจากอุบัติเหตุจราจรต่อไป

คำสำคัญ : เข็มขัดนิรภัย, การสำรวจ, ปัจจัยที่เกี่ยวข้อง, กฎหมาย

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