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Prepared for: Handicap International Belgium Cambodia

Ref: ***Quantitative Executive Findings***

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1. BACKGROUND:

Traffic accidents and road casualties in Cambodia are currently at alarmingly high rates as everyday almost four people die and more than seventy are injured on the nation's roads. Cambodia has the highest traffic accident mortality rate among Asian countries as out of every 10,000 vehicles, 18 vehicles are involved in fatal collisions.

More than 70% of the total number of casualties and almost 60% of fatalities have involved motorcycles. Almost half of these casualties have been between the ages of 15 - 24. Out of 18,351 motorcycles casualties in 2006, 97% were not wearing a helmet, which meant that head casualties accounted for 38% of the total injuries.

Handicap International Belgium has been implementing a "road safety" campaign from earlier 2008 to earlier 2009. The campaign has aimed to reduce the increasing number of traffic accidents mainly caused by motorcyclists and to encourage all riders to wear a helmet. The campaign strategy has consisted of three stages:

- Stage 1 – Raising awareness of the importance of wearing a helmet: this was a multi-media campaign (TV, radio, posters and leaflets) and a community-based campaign in key locations by utilizing youth road safety ambassadors and the traffic police.

- Stage 2 – Subsidized helmet distribution: this has been conducted during the awareness raising stage. The subsidize helmets have been distributed to mainly students.

- Stage 3 – Road traffic law enforcement and helmet law enforcement: This has been done through the support of the Phnom Penh Traffic police. A one and a half month period of enforcing the helmet wearing law by the traffic police, followed directly after the awareness stage.

- The face-to-face pre survey was conducted during the period of 21-22 June, 2008.

- The face-to-face post survey was running during the period of 13-15 February, 2009.

2. STUDY OBJECTIVES:

a) To assess helmet wearing behaviour prior to the road safety campaign and then also to re-evaluate helmet wearing behaviour after the activation of the campaign.

b) To evaluate the proportion of correct and incorrect helmet use in 7 Makara district, Phnom Penh.

c) To explore people's general perception towards the habit of wearing a helmet. The study covered a broad range of the risks and rewards of wearing a helmet when travelling on the streets.

d) To identify people's source of information regarding the road safety campaign and the new enforcement of the traffic law.

e) To explore people's perception of the enforcement of the helmet wearing rule by the traffic police.

3. RESEARCH METHODOLOGY:

Two survey methodologies were deployed for the study for each phase 1) the Traffic Audit and 2) the Face-to-face Interview.

3.1). The Traffic Audit Methodology:

- Traffic Auditor were placed in selected traffic points in reflection of traffic movement from school boys/girls, market vendors, general population and police check points.
- Auditor recorded motorcyclists using audit form for drivers and passengers
- Auditor in a group and each was assigned separate task:
  - 1 auditor: recorded proportion of correct & incorrect helmet wearing for drivers.
  - 1 auditor: recorded proportion of correct & incorrect helmet wearing for passengers.
  - 1 auditor: recorded helmet wearing rate for drivers.
  - 1 auditor: recorded helmet wearing rate for passengers.
- The proportion of correct and incorrect will be calculated as :
  - Correct/incorrect wearing proportion = total correct/incorrect wearing/total wearing
- Record starts from the first motorbike with drive or passenger wearing helmet passing by the auditor. The auditor will then count the subsequent motorbikes till another bike with either the driver or passenger wearing helmet passing by. The record will be the number of drivers or passengers without helmet plus the last driver or passenger with helmet within the interval.
- Auditor will break about 30 seconds prior to restart the same process. The process will repeat like this until 20 scores is entered into the auditor form.
- The wearing rate is the average of all the scores recorded
- The survey did not include people that required to wear their own uniform in which helmet is not part of 1) Monks, 2) Police/armed force in uniform and 3) Other civil servants
- Incorrect wearing helmet defined as helmet not fit or string is not tightening properly.
- The survey did also not take in to account the passengers that are not sitting on the bike for example passengers on the cart of Tuk Tuk and so on.

Auditing Map

- 5 points were selected:
  - Road 182 (market)
  - Road Tchecoslovaquie (school premise)
  - Road Sok Hok (small road)
  - Kampuchea Krom (main road)
  - Sihanouk Blvd (police check point)

- Survey was conducted 3 times/day from Mon-Sun:
  - 6.30am-7.30am
  - 9.30am-10.30am
  - 4.30pm-5.30pm

3.2). The Quantitative Research Methodology:

- Face-to-face with a structured questionnaire was deployed of the fieldwork for data collection.

- A random systematic with a five skipping interval during the fieldwork.

- Only 7 Makara district, Phnom Penh was selected for the fieldwork interviews.

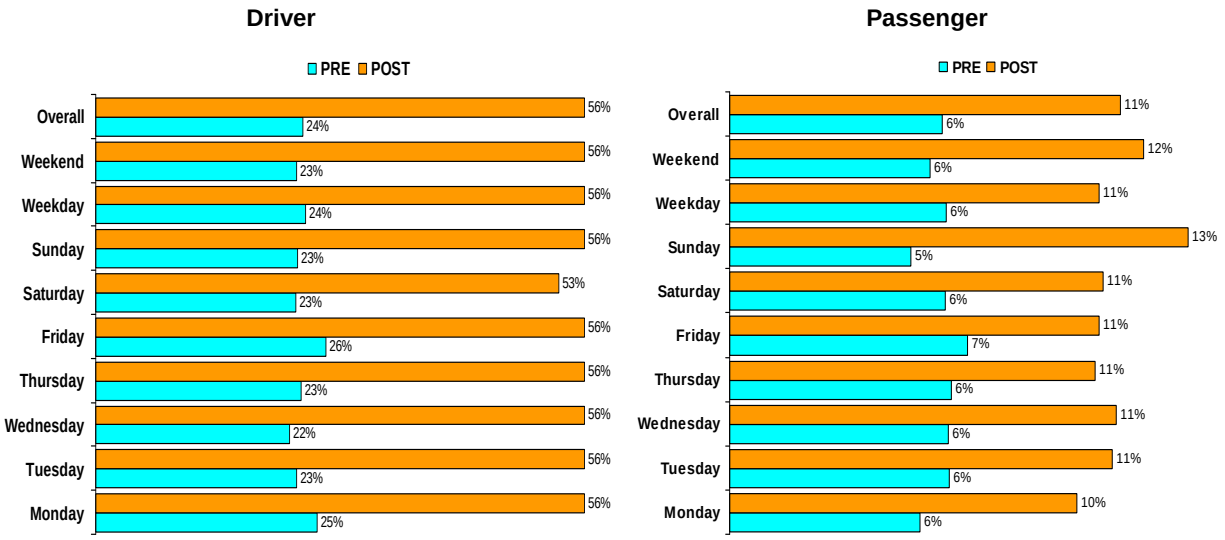
3.2.a. SAMPLE SIZE:

The sample consisted of both the motorcycle taxi drivers and passengers and also covered individual owners with the following profiles:

Respondents' Profile	Pre-Survey		Post-Survey		
	Sample Size	Level of Confidence	Sample Size	Level of Confidence	
High School and University Students	68	90% @ 10+/- Standard Error	68	90% @ 10+/- Standard Error	136
Motorcycle Taxi Drivers	68	90% @ 10+/- Standard Error	68	90% @ 10+/- Standard Error	136
General Public and Market vendors	68	90% @ 10+/- Standard Error	68	90% @ 10+/- Standard Error	136
Total	**204**		**204**		**408**

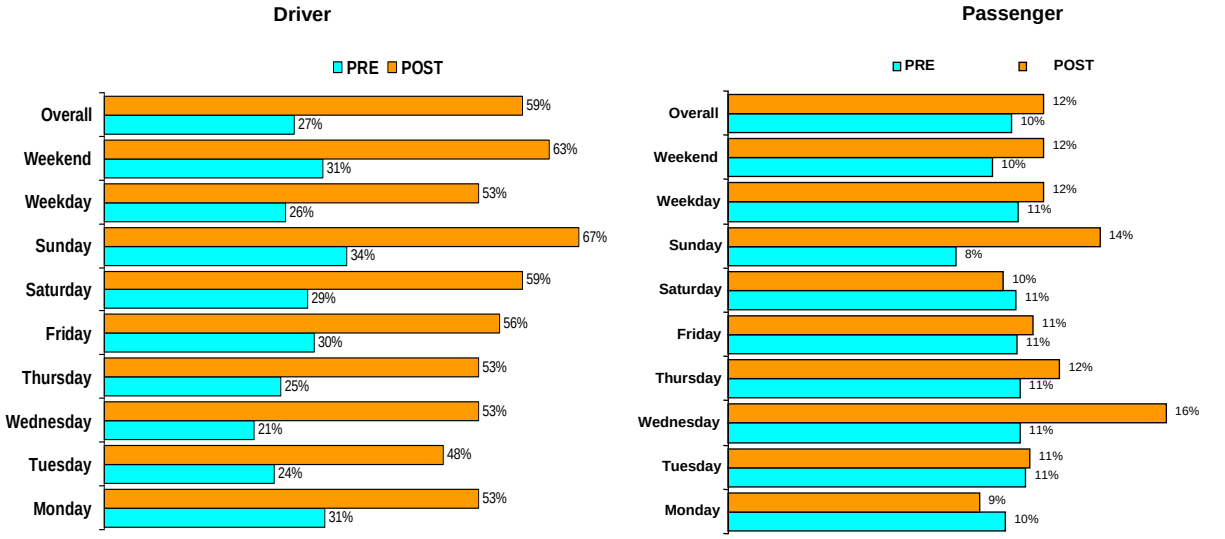
4-) HELMET WEARING RATE

4.1 Overall Helmet Wearing Rate (by-day)



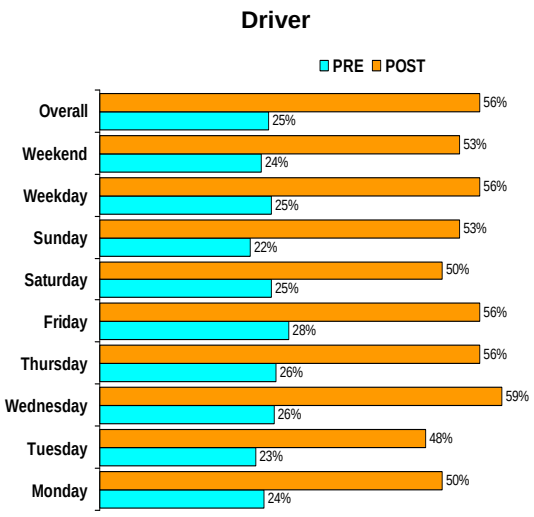
In overall, the helmet wearing rate both for drivers and passengers have been increased significantly after the launched of the road safety campaign. It is noted that the rate of helmet wearing for the drivers increase on average of 32% while the rate for passengers increase only (5%).

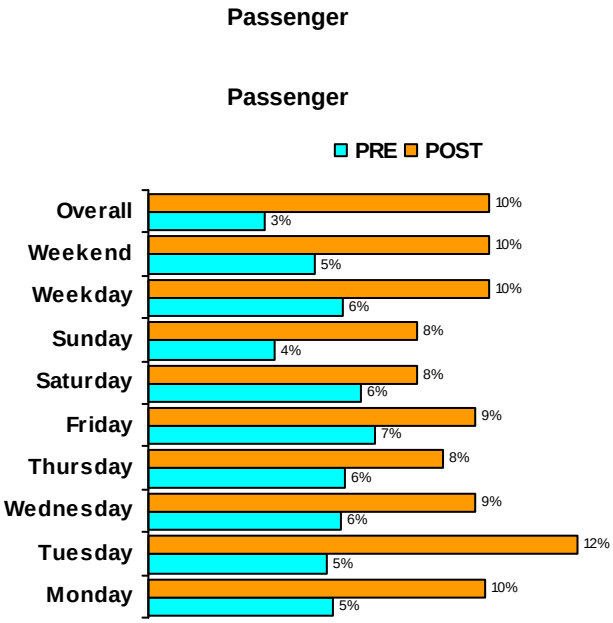
4.1.1 Helmet Wearing Rate (by-day) @ Police Check Point



The post audit suggests that the helmet wearing rate for the drivers increase on average of 32% unlike the passengers only (1%).

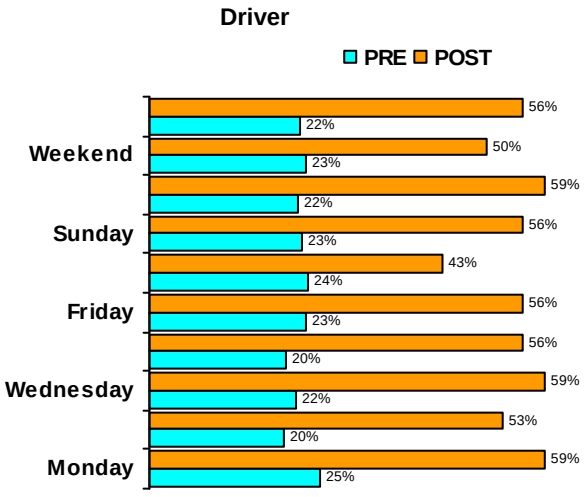
4.1.2 Helmet Wearing Rate (by-day) @ Market

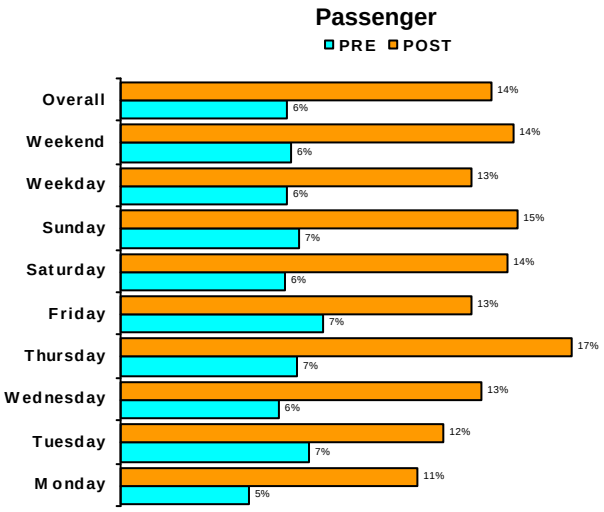




The post audit indicates that at the market, the helmet wearing rate for the drivers increase on average of 29% while the rate for passengers increase only (6%).

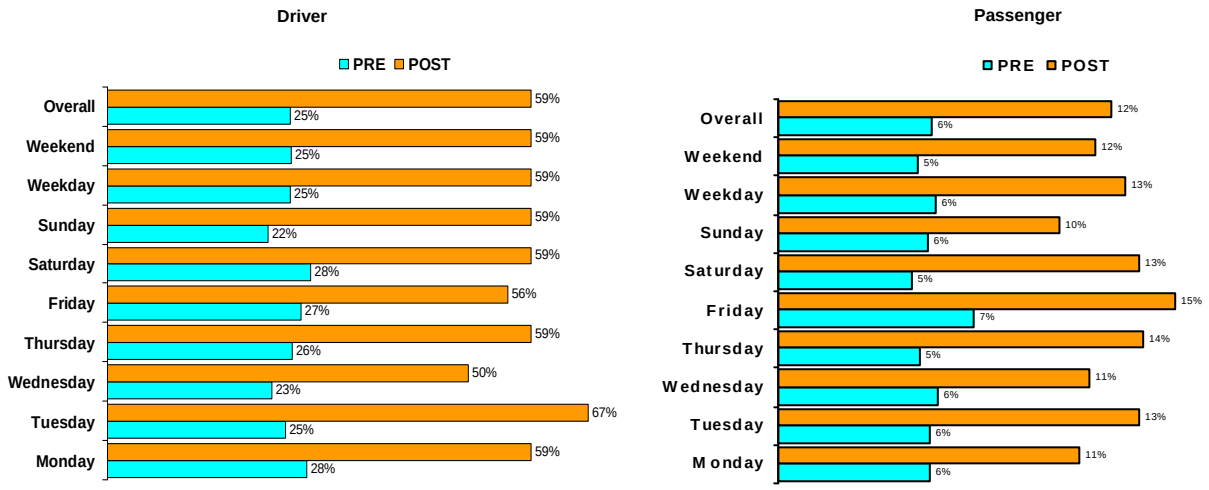
4.1.3 Helmet Wearing Rate (by-day) @ School





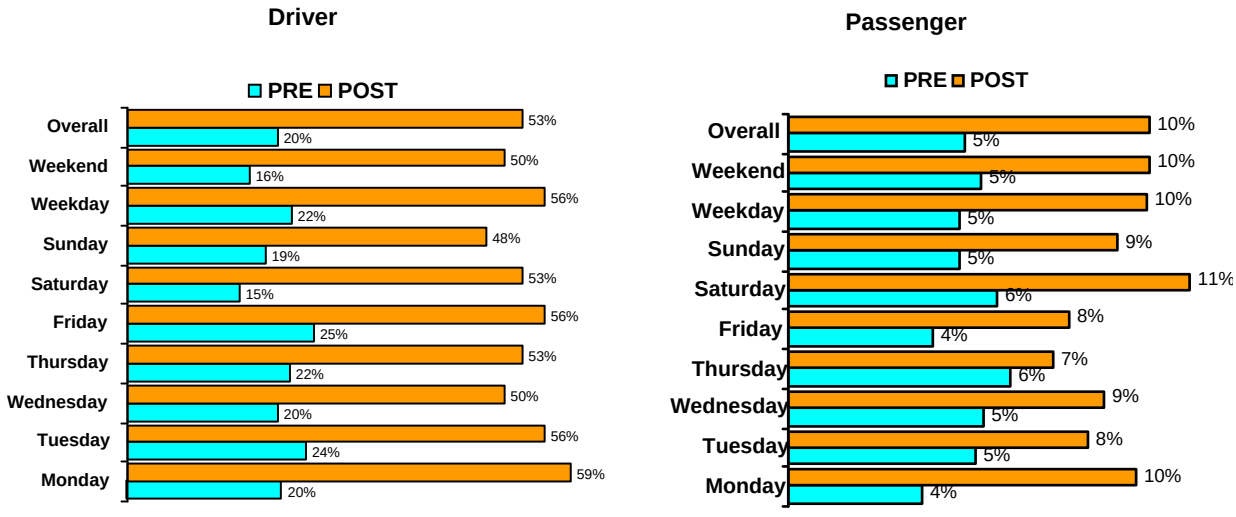
The post audit shows that at school, the helmet wearing rate for the drivers increase on average of 33% while the rate for passengers increase only (7%).

4.1.4 Helmet Wearing Rate (by-day) @ Main Road



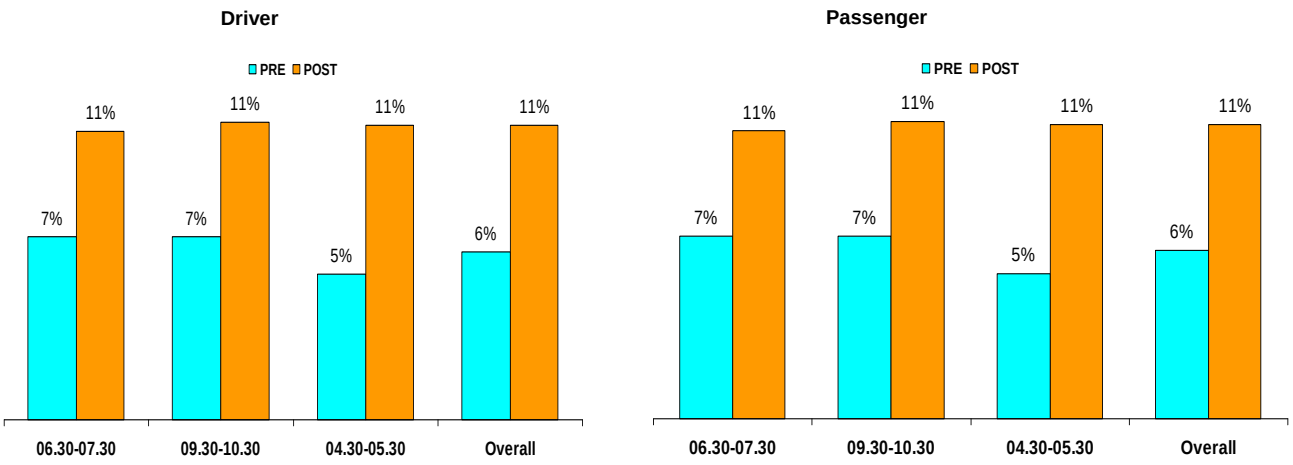
The post audit suggests that at the main road, the rate of helmet wearing for the drivers increase on average of 33% while the rate for passengers increase only (7%).

4.1.5 Helmet Wearing Rate (by-day) @ Small Road



The post audit confirms that at the small road, the helmet wearing rate for the drivers increase on average of 32% while the rate for passengers increase only (5%).

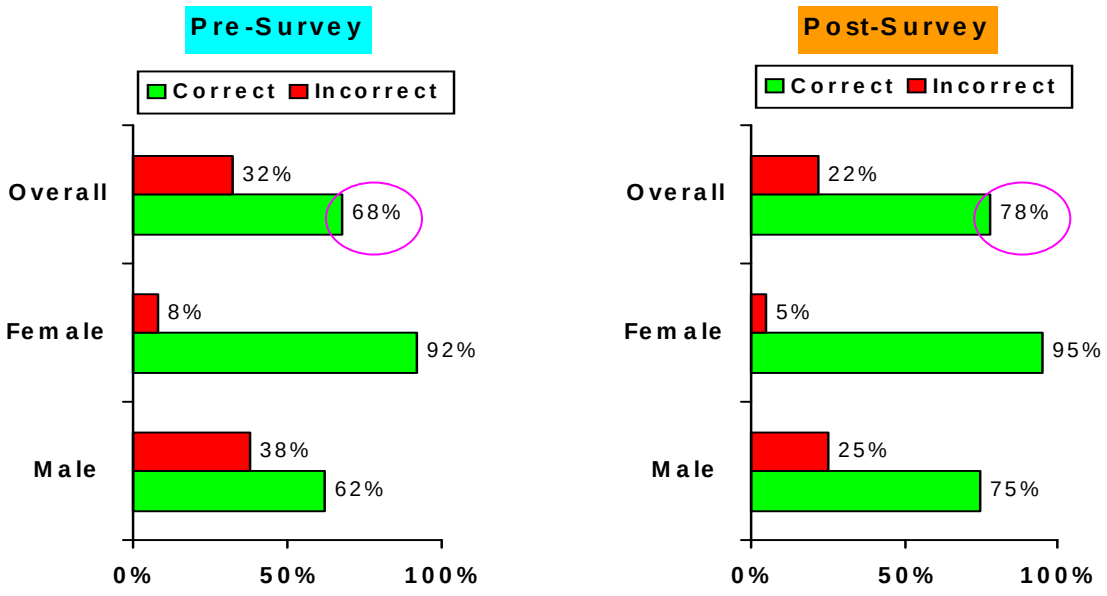
4.2 Overall Helmet Wearing Rate (By-Time Slot)



In overall, the post audit suggests across the different time slots of the day, the helmet wearing rate for the drivers increase on average of 29% whereas the passengers only (5%).

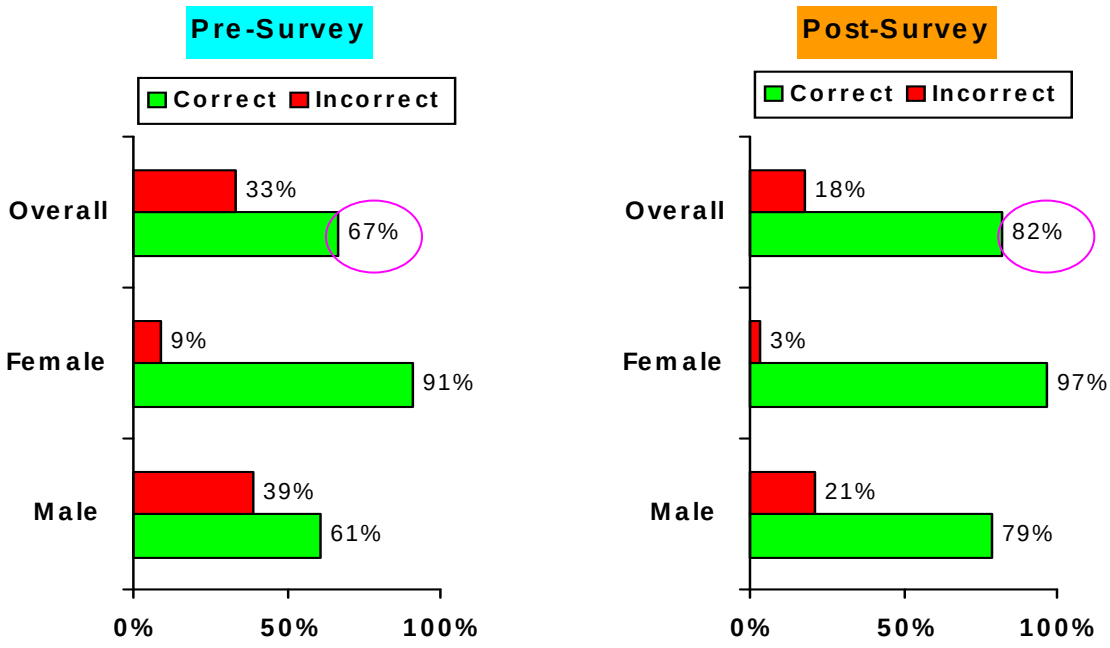
5 - DRIVER'S PROPORTION OF CORRECT AND INCORRECT WEARING OF A HELMET.

5.1 Driver's Proportion of Correct and Incorrect Wearing – Overall (all locations)



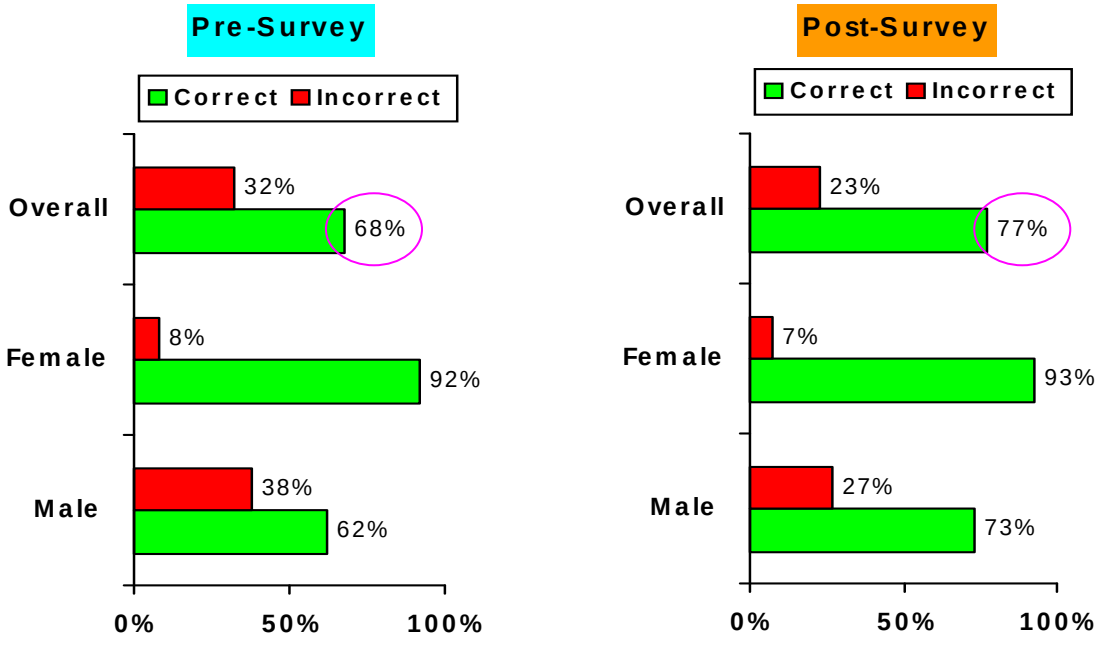
The post audit suggests that for all locations, in overall the correct helmet wearing rate for the drivers increase 10% (from 68% to 78%) and the incorrect helmet wearing rate decrease at the same rate (from 32% to 22%).

5.2 Driver's Proportion of Correct and Incorrect Wearing – Overall @ (police check point)



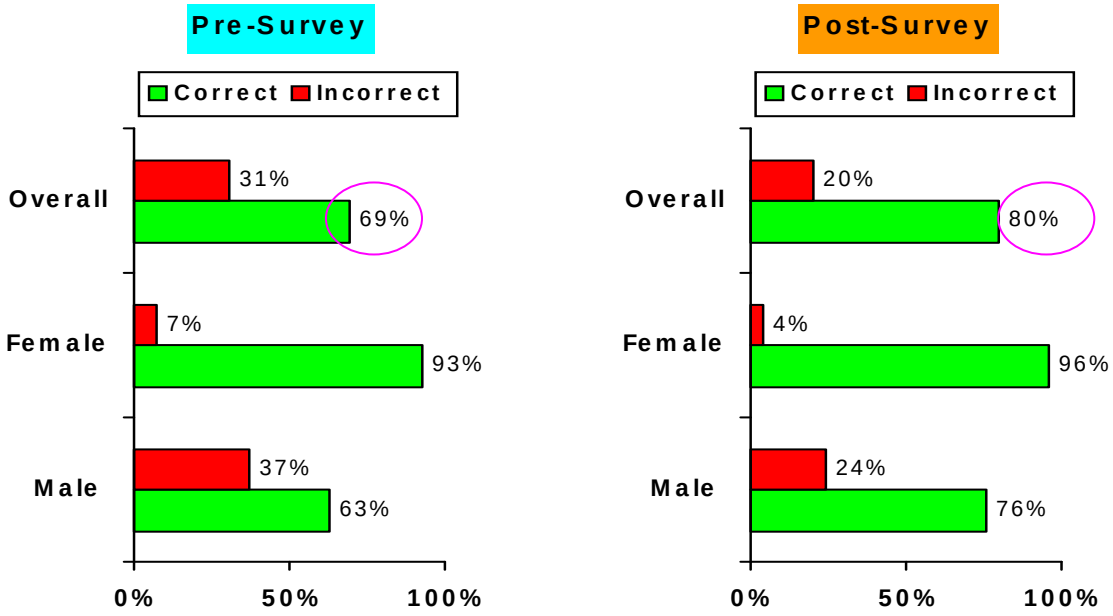
The post audit shows that At the police check point, in overall the correct helmet wearing rate for the drivers increase 15% (from 67% to 82%) and the incorrect helmet wearing rate decrease at the same rate (from 33% to 18%).

5.3 Driver's Proportion of Correct and Incorrect Wearing - Overall @ (market)



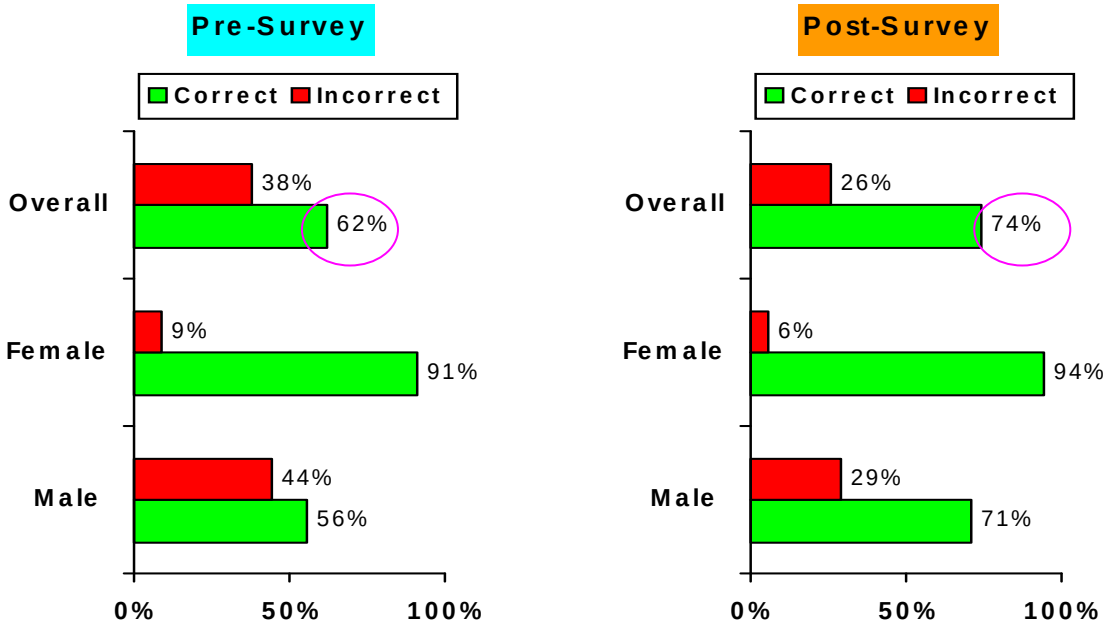
At the market, in overall the correct helmet wearing rate for the drivers increase 9% (from 68% to 77%) and the incorrect helmet wearing rate decrease from 32% to 23% after the campaign.

5.4 Driver's Proportion of Correct and Incorrect Wearing - Overall @ (school)



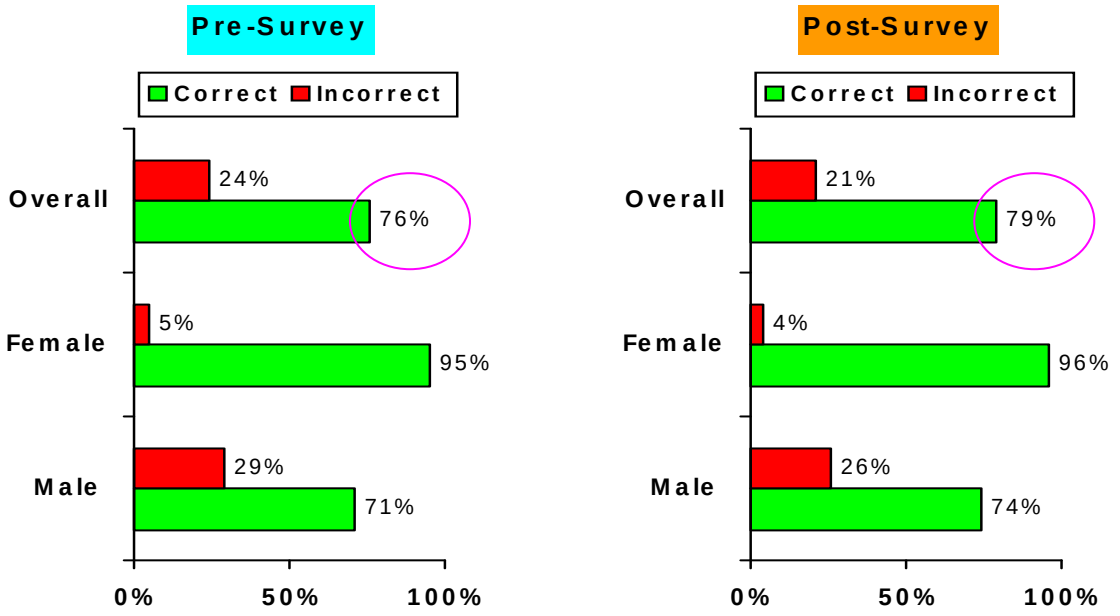
At school, in overall the correct helmet wearing rate for the drivers increase 11% (from 69% to 80%). The incorrect helmet wearing rate decreases from 31% to 20% after the campaign.

5.5 Driver's Proportion of Correct and Incorrect Wearing – Overall @ (small road)



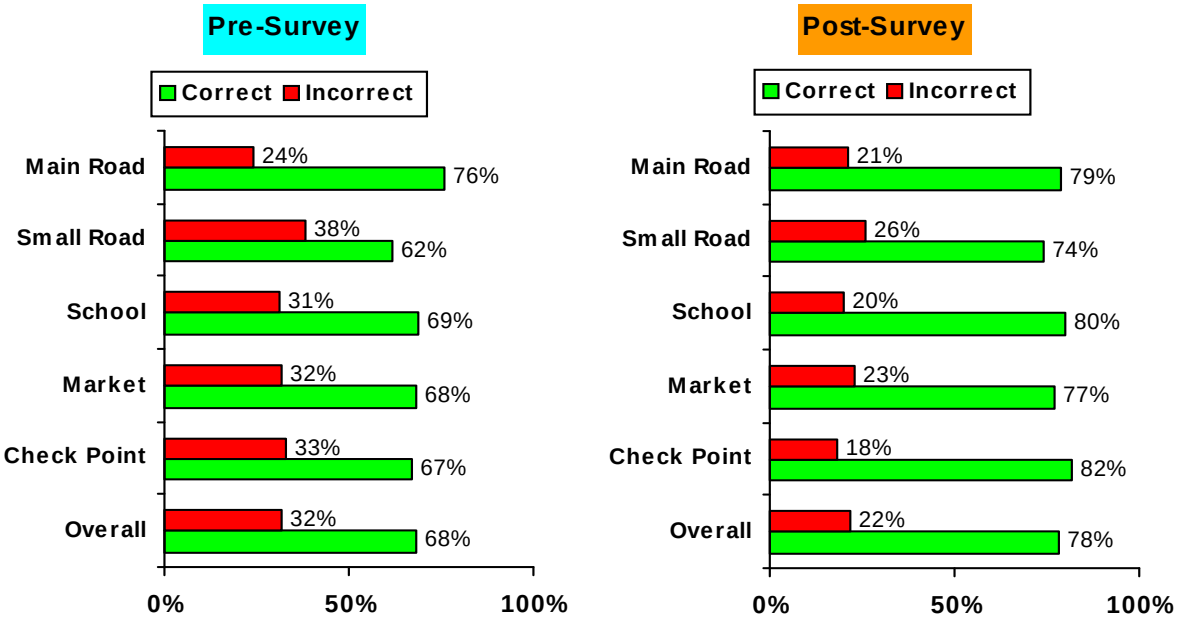
The post audit confirms that at school, in overall the correct helmet wearing rate for the drivers increase 12% (from 62% to 74%) and the incorrect helmet wearing rate decreases the same level (from 38% to 26%).

5.6. Driver's Proportion of Correct and Incorrect Wearing – Overall @ (main road)



The post audit indicates that at main road, in overall the correct helmet wearing rate for the drivers increase 3% (from 76% to 79%) and the incorrect helmet wearing rate decreases at the same level (from 24% to 21%).

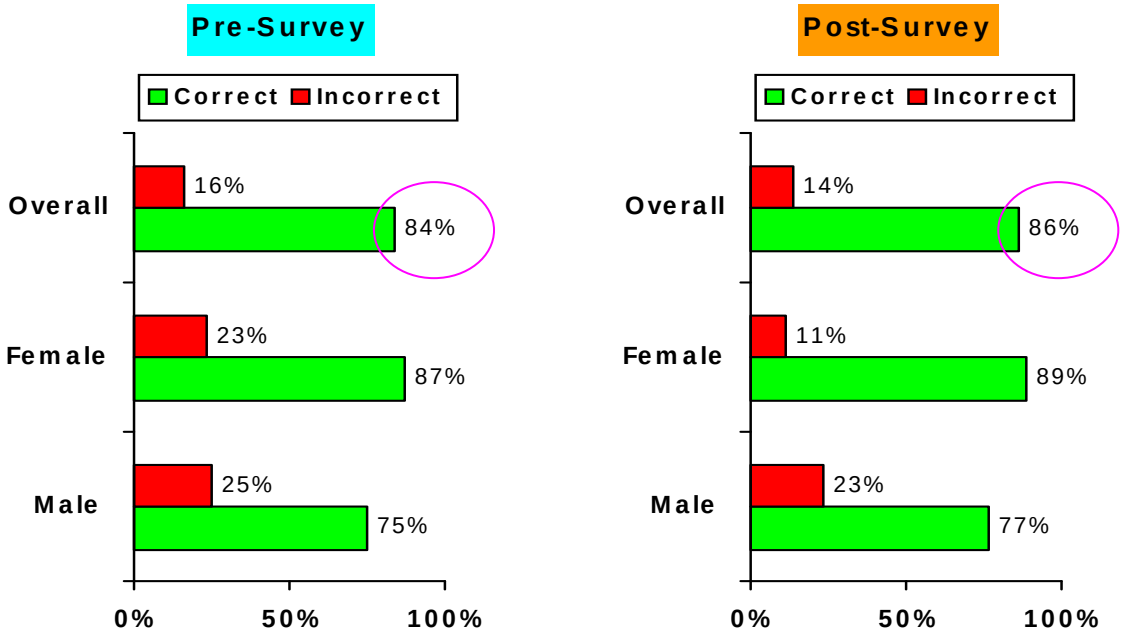
5.7. Driver's Proportion of Correct and Incorrect Wearing – Compare all Locations



The post audit indicated that across all roads, in overall the correct helmet wearing rate for the drivers has been increased (from 68% to 78%) whereas it reflected the incorrect wearing rate of an decrease (from 32% to 22%).

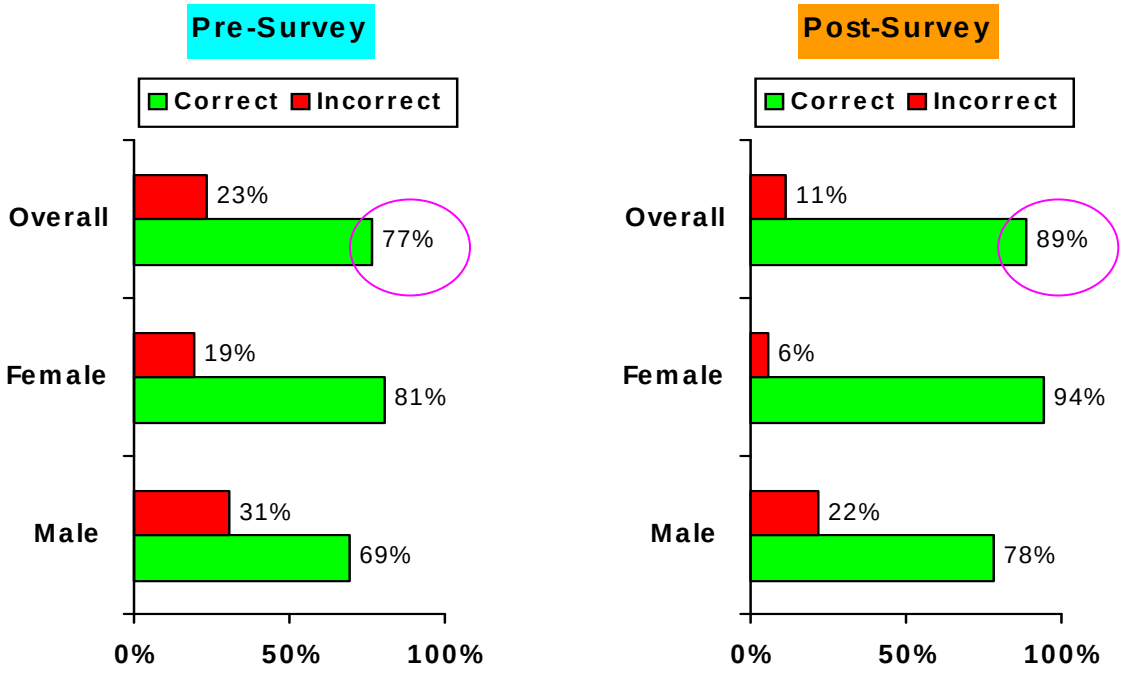
6. PASSENGER'S PROPORTION OF CORRECT AND INCORRECT WEARING OF A HELMET

6.1 Passenger's Proportion of Correct and Incorrect Wearing – Overall (all Locations)



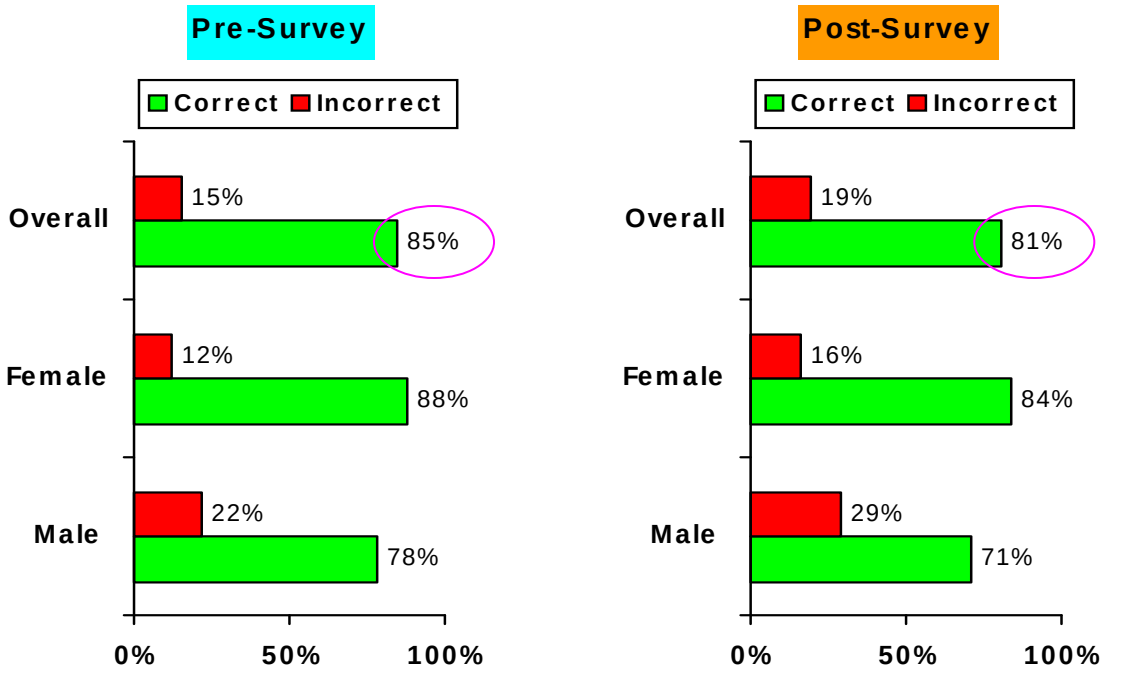
The post audit shows that for all locations, in overall the correct helmet wearing rate for the passengers increase 2% (from 84% to 86%) and the incorrect helmet wearing rate decreases at the same level (from 16% to 14%).

6. 2 Passenger's Proportion of Correct and Incorrect Wearing – Overall @ (check point)



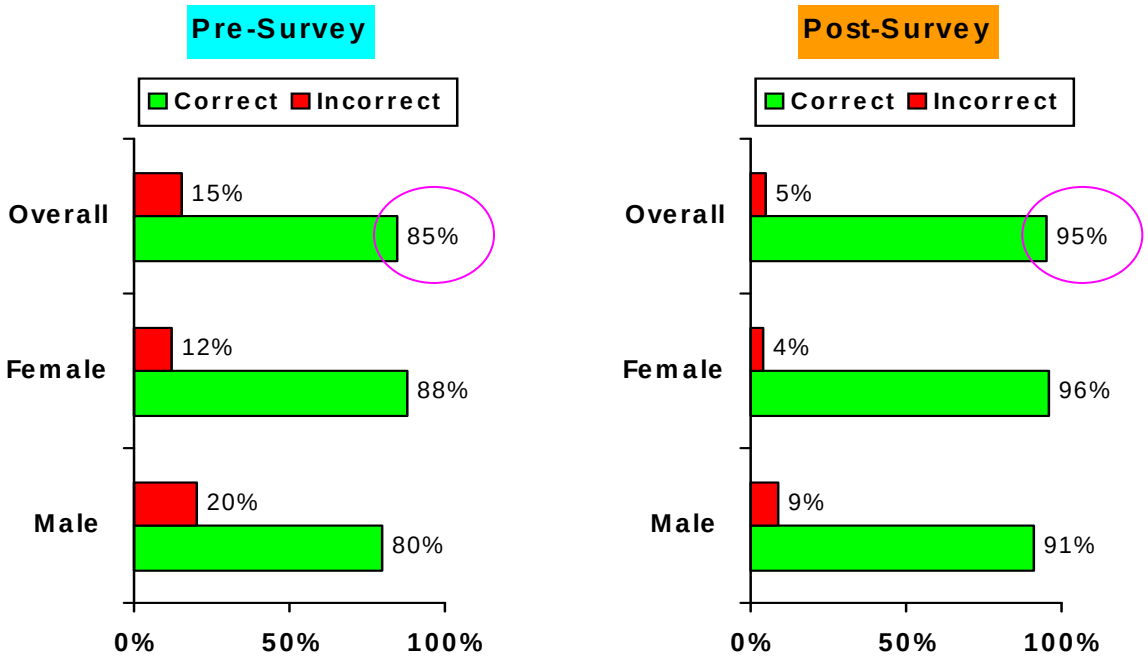
The post audit indicates that at police check point, in overall the correct helmet wearing rate for the drivers increase 12% (from 77% to 89%) and the incorrect helmet wearing rate decrease at the same level (from 23% to 11%).

6.3 Passenger's Proportion of Correct and Incorrect Wearing - Overall @ (market)



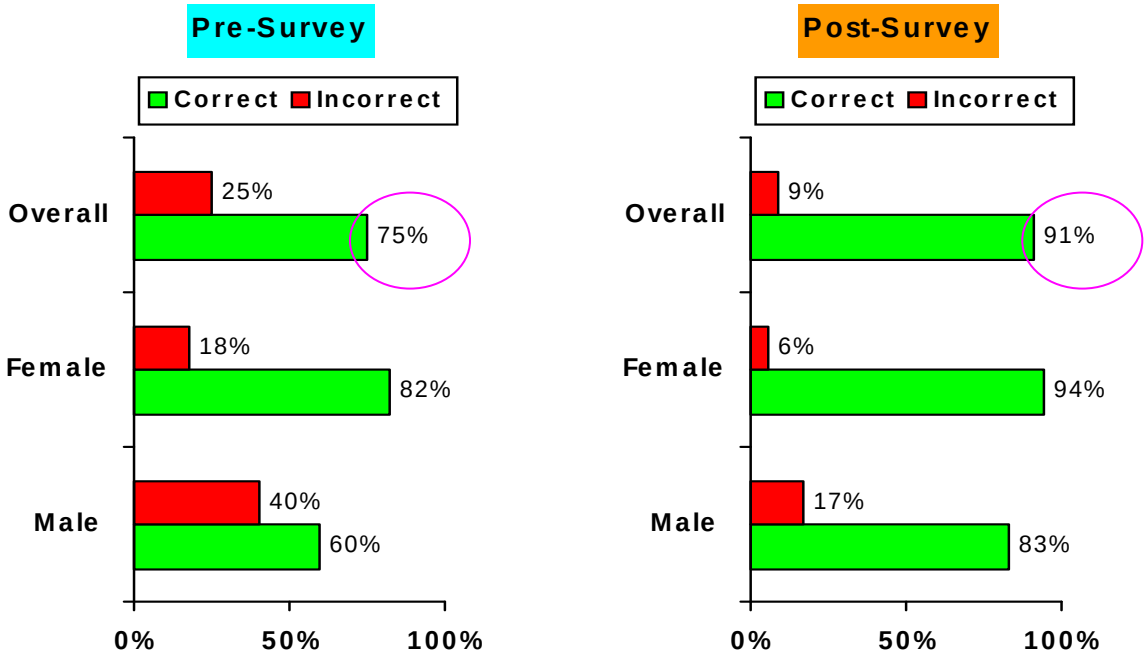
The post audit confirms that at the market, in overall the correct helmet wearing rate for the drivers decrease 4% (from 85% to 81%) and the incorrect helmet wearing rate increase at the same level (from 15% to 19%). It is noted that this statistic is contradict to others.

6.4 Passenger's Proportion of Correct and Incorrect Wearing – Overall @ (school)



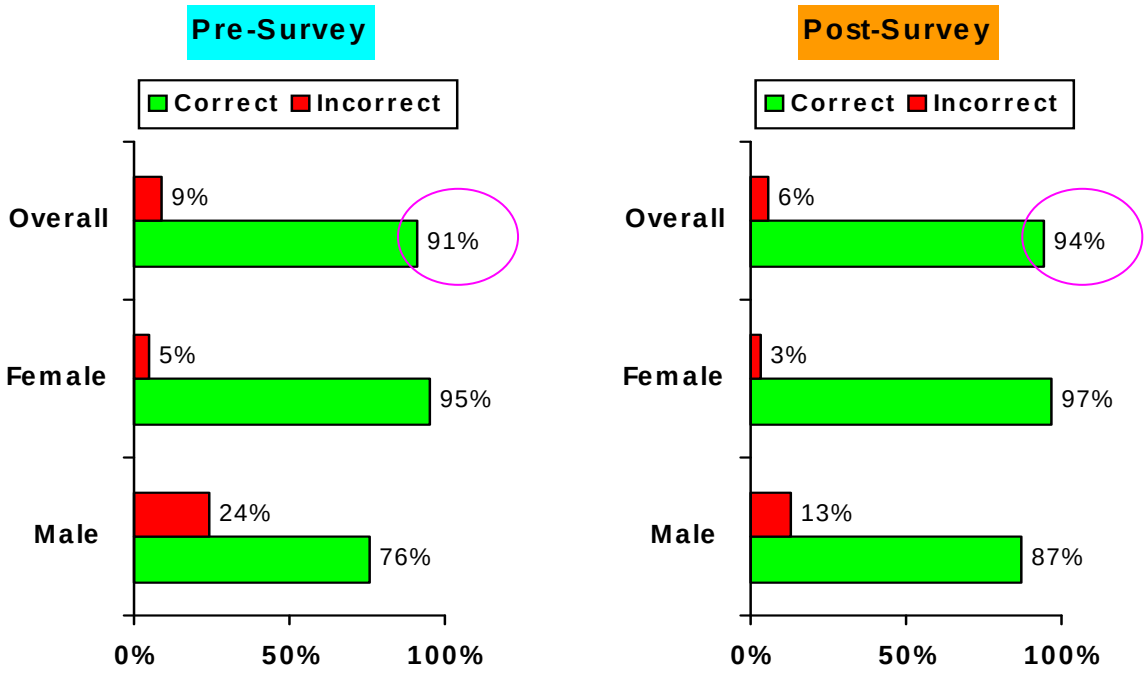
The post audit indicates that at police check point, in overall the correct helmet wearing rate for the drivers increase 10% (from 85% to 95%) and the incorrect helmet wearing rate decrease at the same level (from 15% to 5%).

6.5 Passenger's Proportion of Correct and Incorrect Wearing – Overall @ (small road)



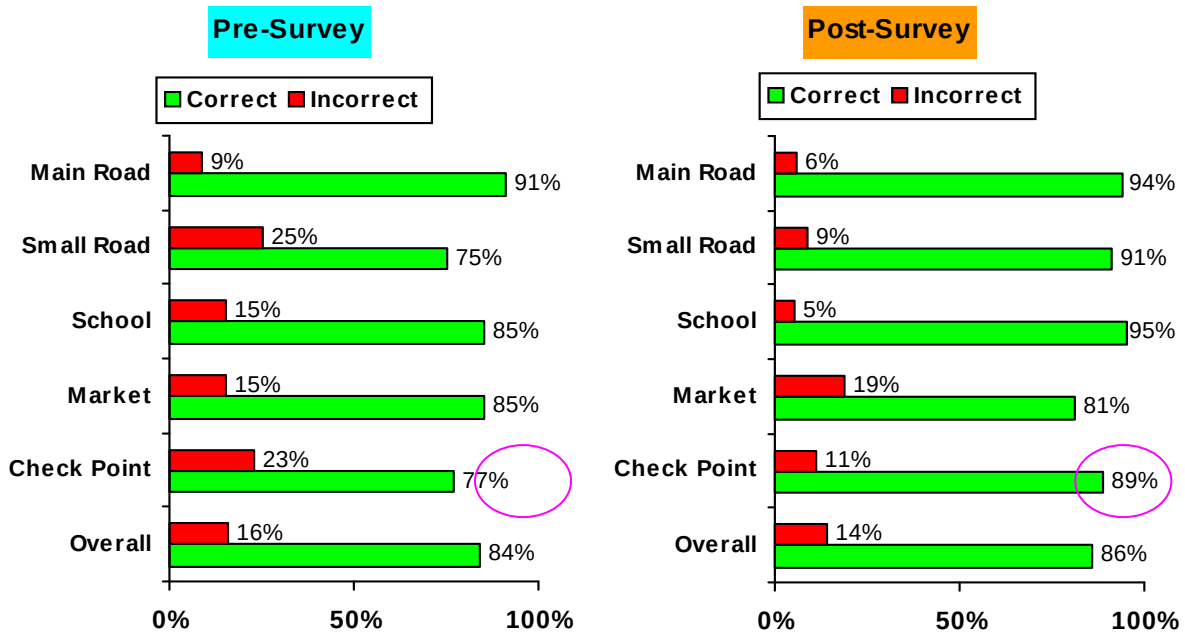
The post audit suggests that at small road, in overall the correct helmet wearing rate for the drivers increase 16% (from 75% to 91%) and the incorrect helmet wearing rate decrease at the same level (from 25% to 9%).

6.6. Passenger's Proportion of Correct and Incorrect Wearing – Overall @ (main road)



The post audit confirms that at main road, in overall the correct helmet wearing rate for the drivers increase 3% (from 91% to 94%) and the incorrect helmet wearing rate decrease at the same level (from 9% to 6%).

6.7. Passenger's Proportion of Correct and Incorrect Wearing – Compare all Locations

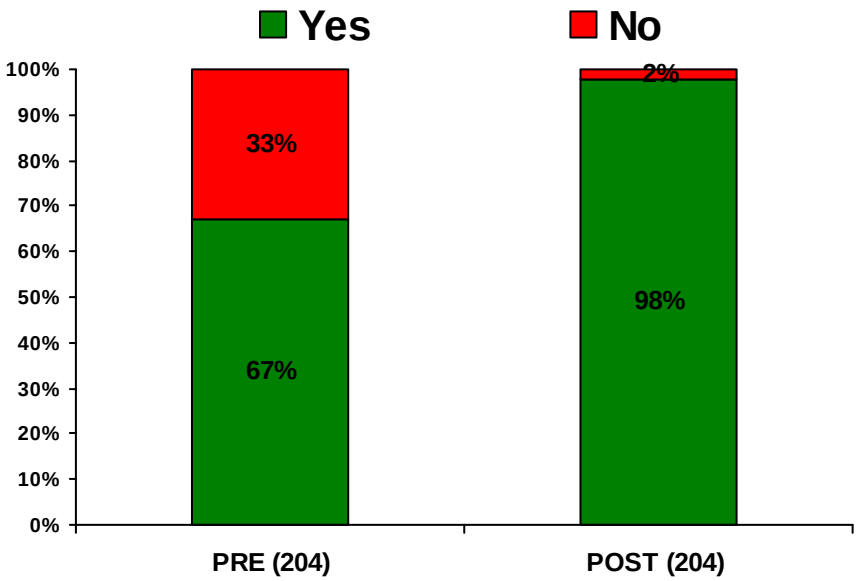


The post audit indicated across all the locations, in overall the correct helmet wearing rate for the passengers have been lightly increased only 2% (from 84% to 86%).

7. THE MAIN FINDINGS OF FACE TO FACE:

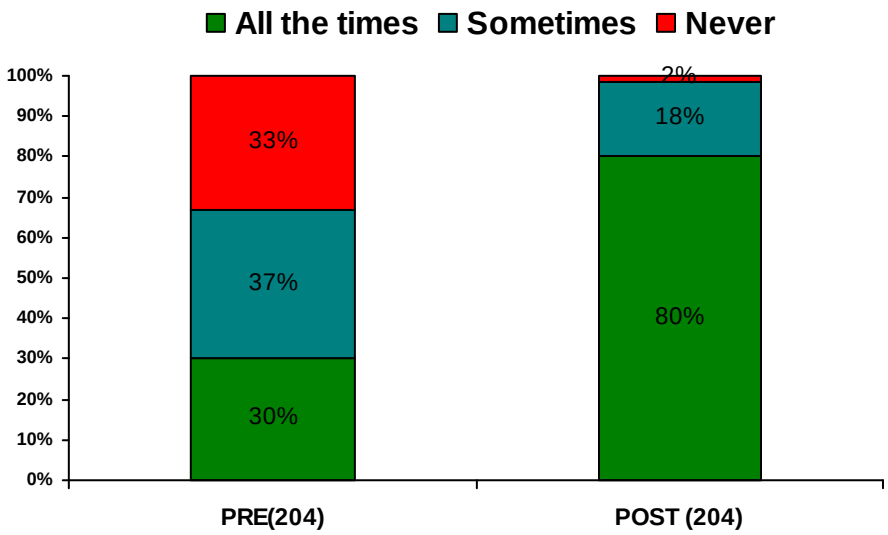
A - INECIDENCE OF WEARING A HELMET

Q: Incidence of wearing a helmet when travelling on a motorcycle.



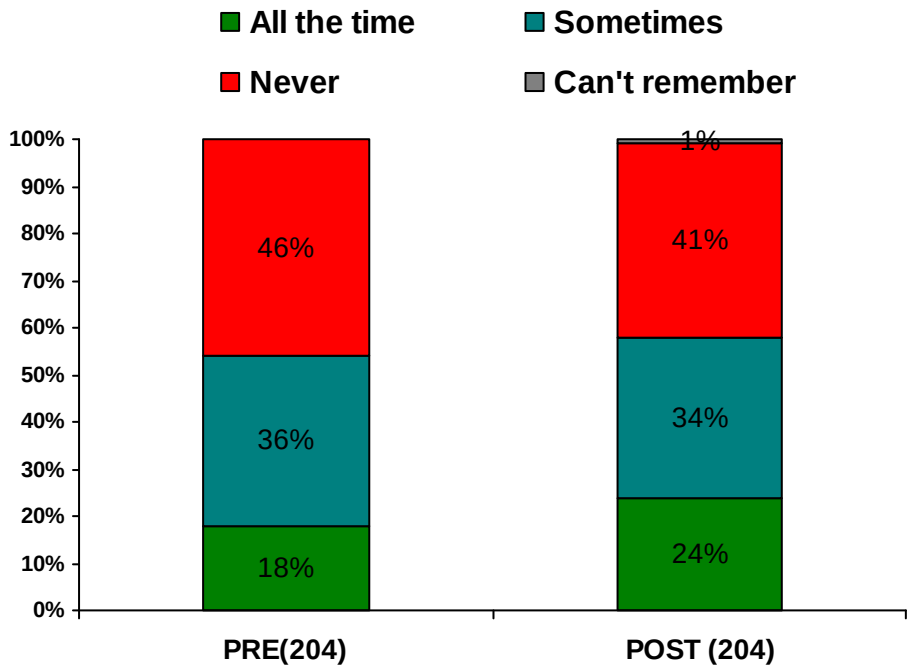
Prior to the Road Safety Campaign, only 67% of the respondents claimed that they didn't wear a helmet when travelling on a motorcycle. After the campaign, almost everyone in the sample (98%) claimed that they did wear a helmet when travelling on a motorbike.

Q: How often do you usually wear a helmet when you drive a motorcycle?



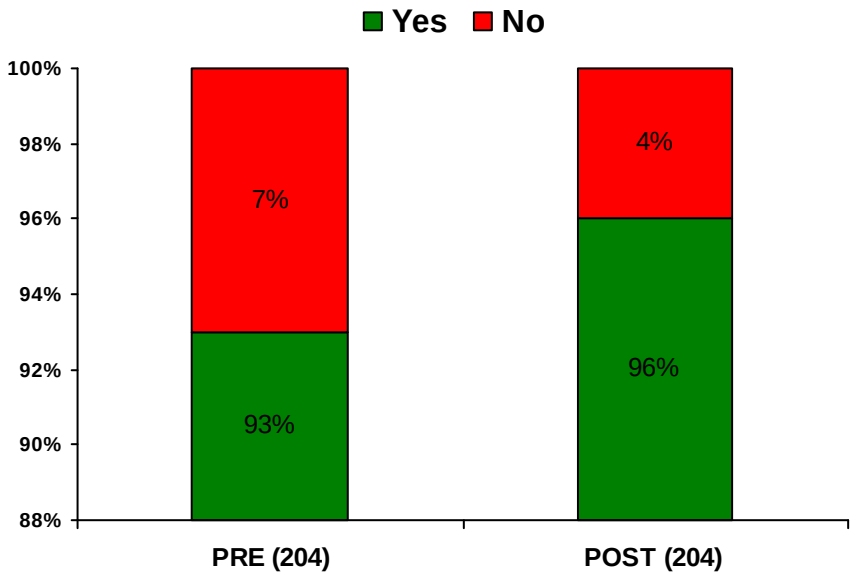
Prior to the Road Safety Campaign, only 30% of the respondents actually wore a helmet all time, and another 37% only did so occasionally. After the campaign, the respondents had become more cautious as at least 80% of them reported that they wore helmets every time they drove a motorcycle.

Q: How often do you usually wear a helmet when you are a passenger on motorcycle?



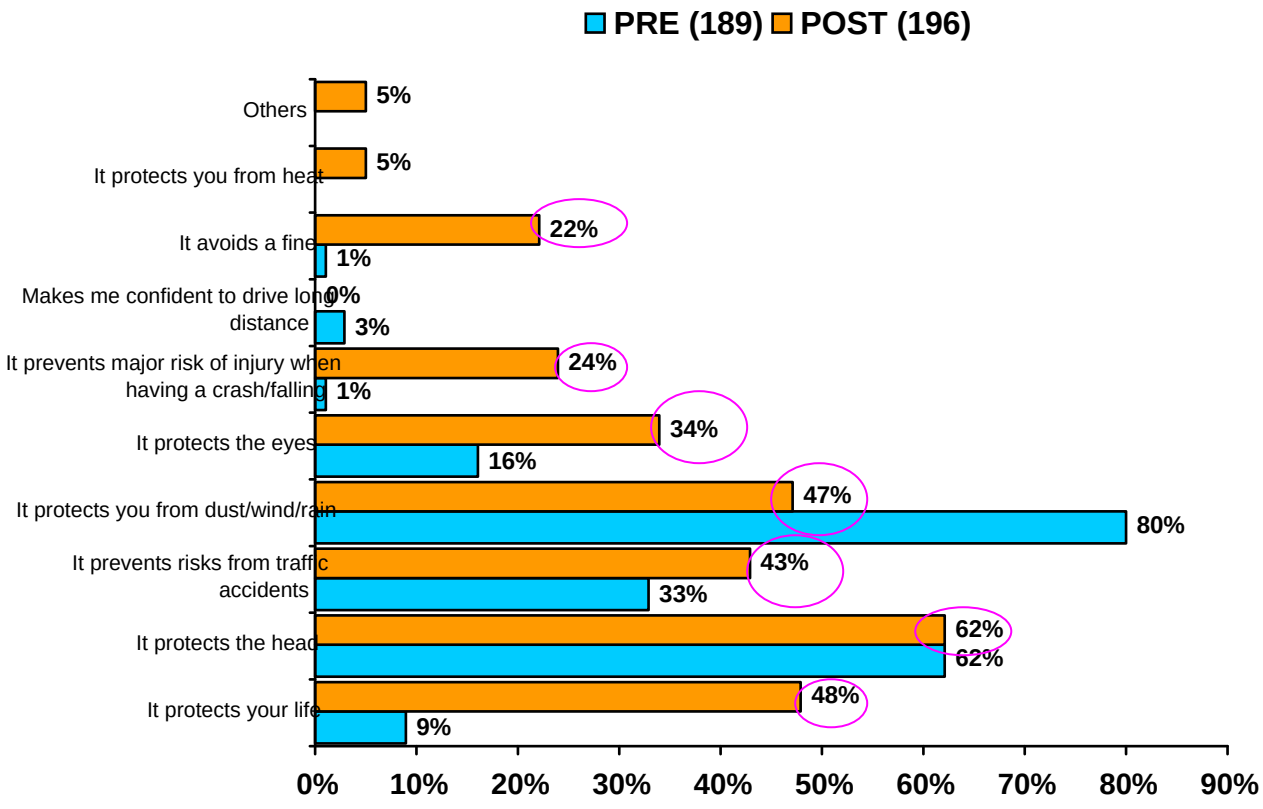
Before the Road Safety Campaign, only 18% of passengers wore a helmet at all times and almost half (46%) never wore a helmet. As a result of the Road Safety Campaign, not much has changed among this group of passengers, as 41% still do not wear helmets. However, there has been a small positive change as the percentage of those who do wear helmets all the time has increased from 18% to 24%.

Q: Do you think that wearing helmet is necessary?



Nine out of every ten people surveyed believed that wearing a helmet is necessary. This perception did not really change significantly after the Road Safety Campaign, as the proportion of those think it is necessary rose from 93% to 96%.

Q: Can you tell me in your own words a reason why wearing a helmet is necessary?

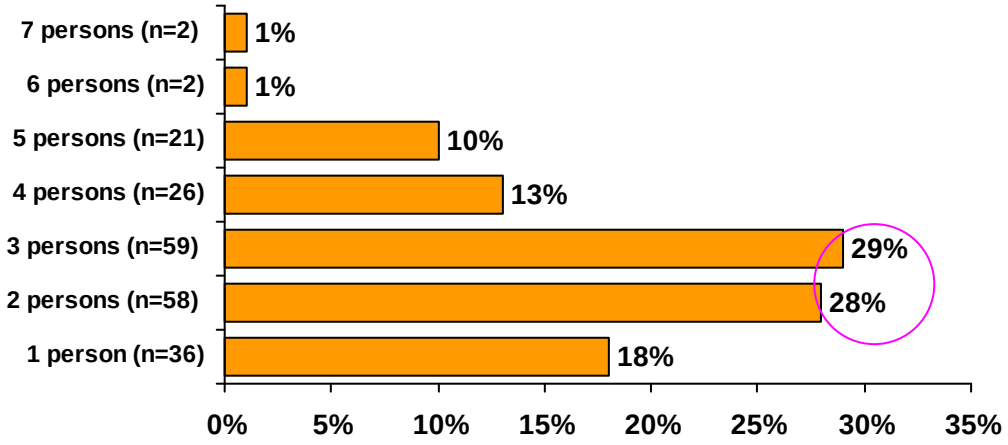


Prior to the campaign, the popular belief was that wearing a helmet is primarily going to protect them from dust, wind or rain (80%). Protection of the head (62%) and the prevention of risks from accidents (33%) were only secondary concerns.

After the campaign, people now said that they use a helmet to protect their life, their head and their eyes, and that a helmet reduces risks when being involved in a traffic accident. The perception that a helmet protects you from dust, wind and rain reduced from 80% down to 47% after the campaign. Also as many as 22% were now aware that there is a fine for not wearing a helmet.

B - LEVEL OF HELMET PENETRATION

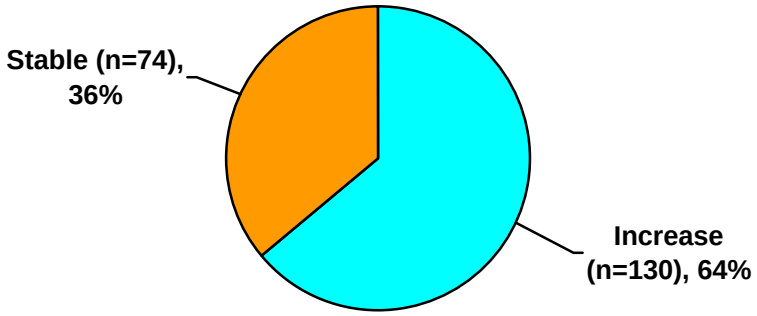
Q. After enforcing the helmet wearing rule, how many members in your family having helmet?



Source: general census 2008: an urban household size = 5.4 persons.

57% of the total sample size claimed that they owned an average of 2.5 helmets per household after the Road Safety Campaign has been introduced.

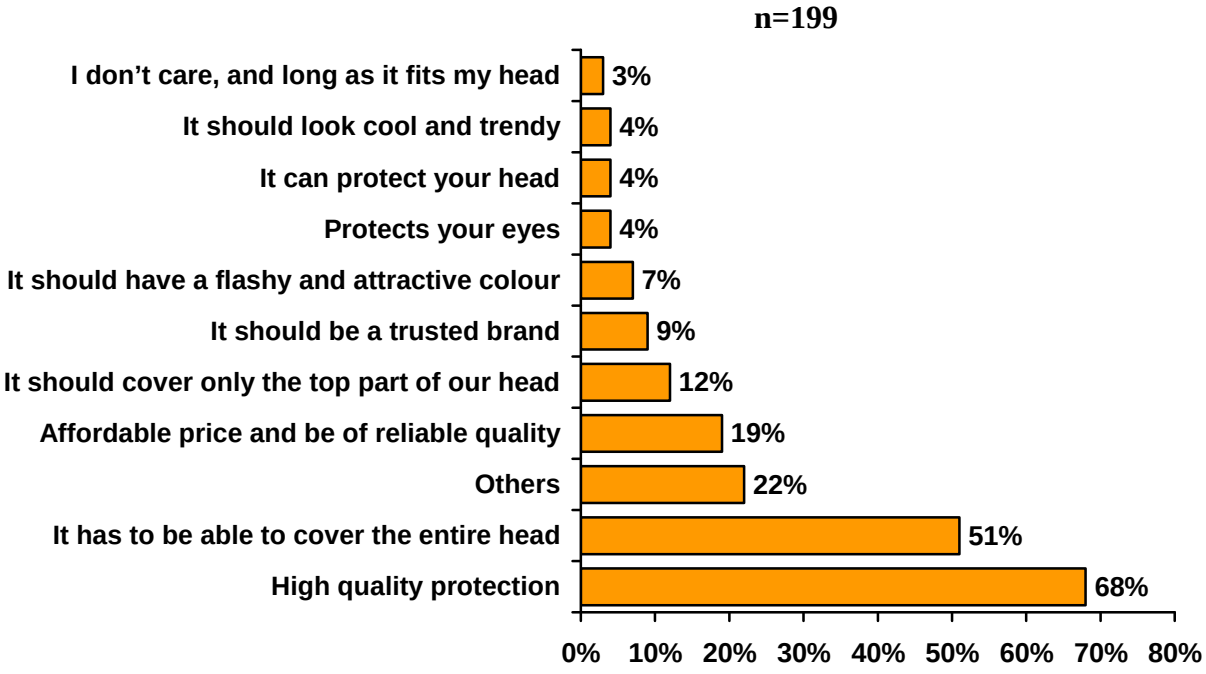
Q. Whether or not the level of the helmet penetration is being increased or decreased?



64% of the total sample size reported that they have purchased additional helmets for household, which is considered significantly growth of helmet ownership.

C - PERCEPTIONS TOWARD AN IDEAL HELMET

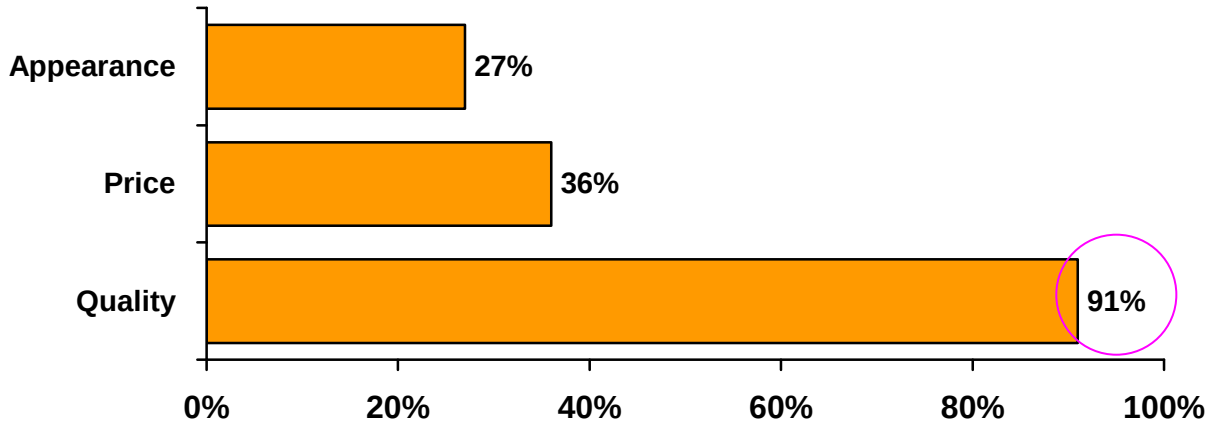
Q. What is your views of an ideal helmet?



p/s: each value in "others" doesn't exceed 2%

68% of the total sample size claimed that an ideal helmet has to be of Genuine Quality that Offers High Quality Protection followed by It Has to be able to Cover the Entire Head (51%).

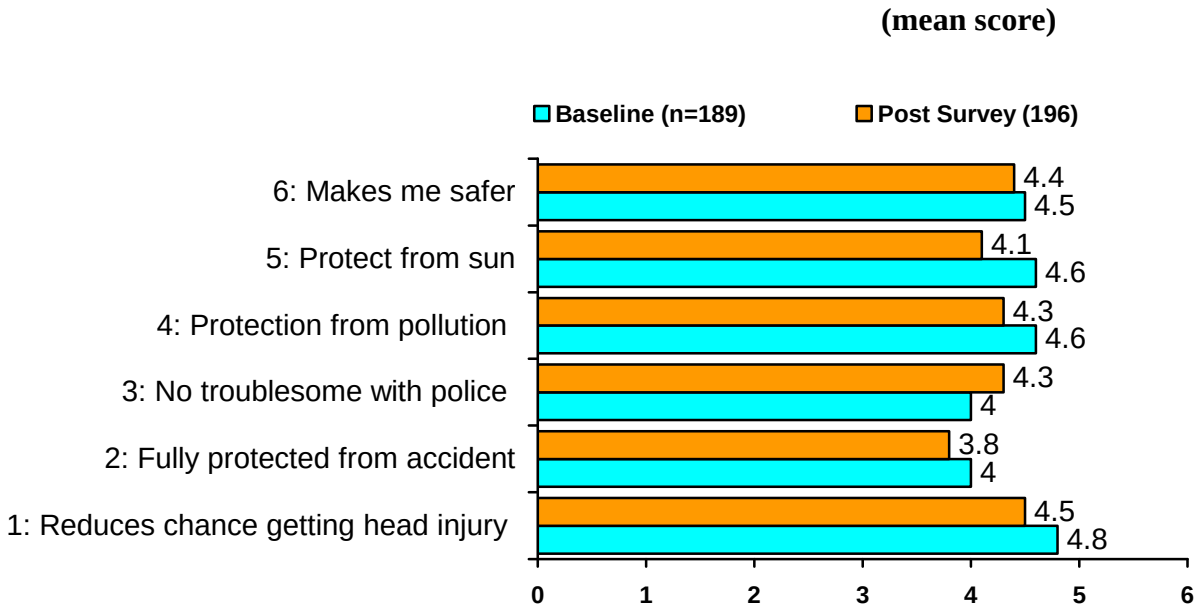
Q. Do you choose to buy a helmet because of its price, quality or appearance?



It is consistently proven that quality if the priority of selecting a helmet (91%).

D - PERCEPTIONS REGARDING WEARING A HELMET

Q: I am going to read out to you some of the benefits of wearing a helmet. Could you please tell me how much you would agree or disagree to each statement using a 5 point scale where 5 is "agree strongly", and 1 is "disagree strongly".



Benefit 1: It is surprisingly to see that the post survey result indicated that our samples tend to decline on the essence of wearing helmet would reduce the chance of getting a head injury in a crash (an decrease from 85% strongly agreeing during pre survey to 70% strongly agreeing during the post survey). It is suggested that, the campaign message was not successfully communicated.

Benefit 2: It appears to be surprised that the post survey finding suggested that the samples do not believe that wearing of a helmet can **fully protect** themselves from traffic accidents (an decrease from 29% strongly agreeing during pre survey to 21% strongly agreeing during the post survey). This indicated that the message of communicating on the benefit of fully protected by wearing helmet was not well received.

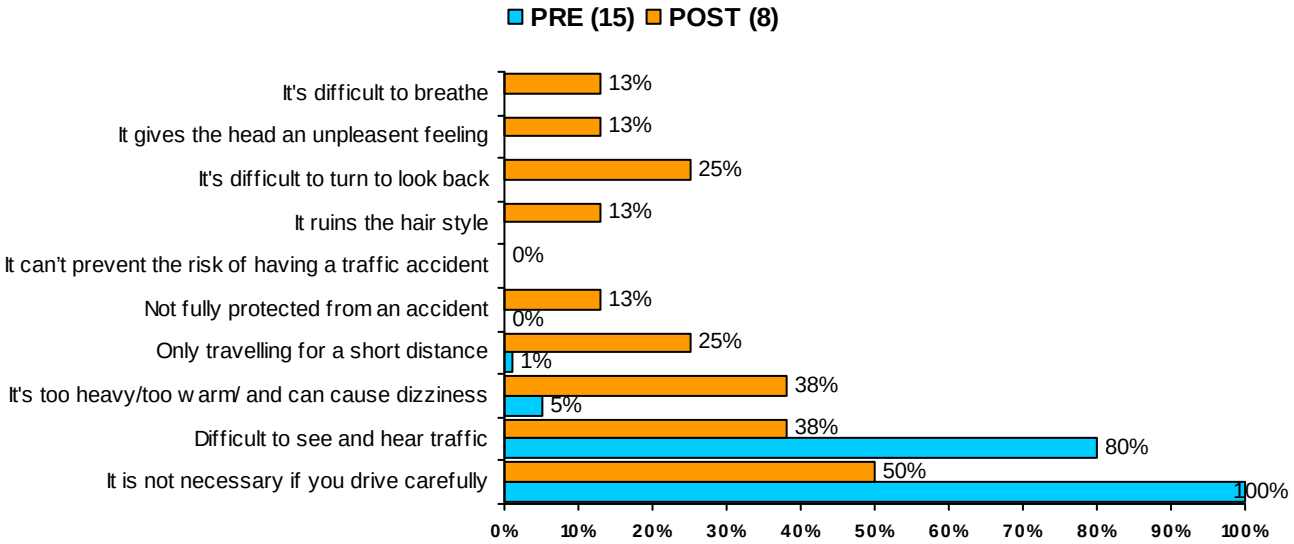
Benefit 3: After the Road Safety Campaign there was a higher awareness among respondents that it was possible to get in trouble with the police if they do not wear a helmet (an increase from 66% strongly agreeing to 81% strongly agreeing with this).

Benefit 4: After the campaign, fewer people have the perception that a helmet is to protect them from environmental elements (from 96% down to 83%).

Benefit 5: Following the Road Safety Campaign fewer people have the perception that a helmet serves to protect a person's face from heat.

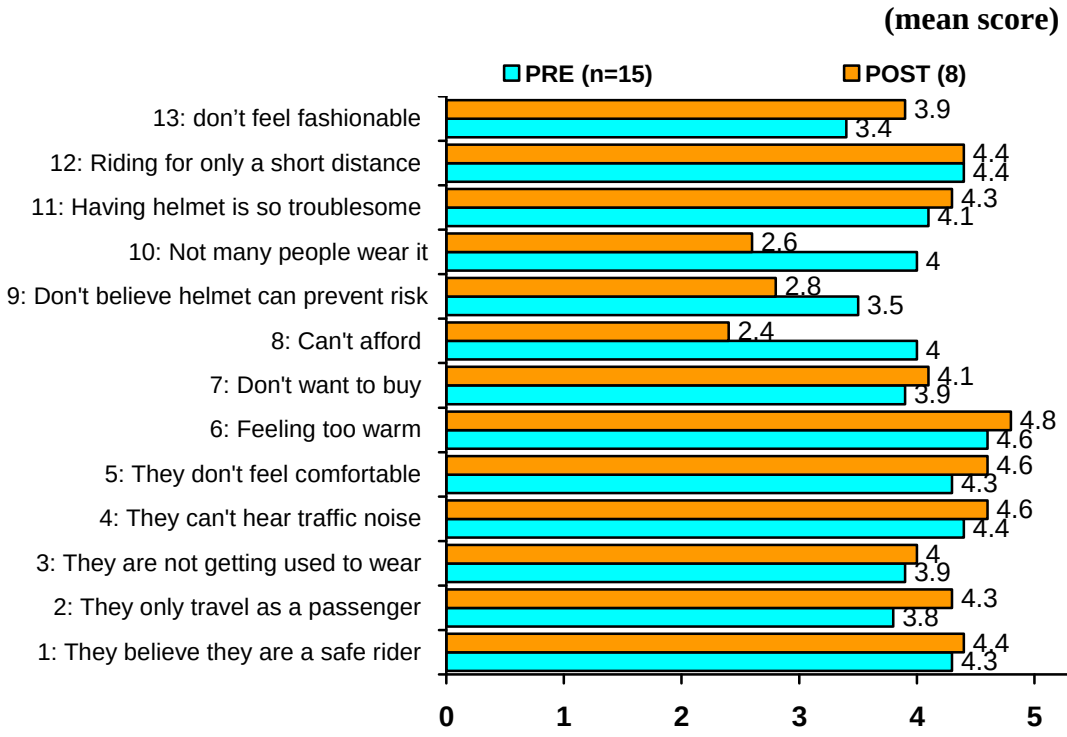
Benefit 6: The benefit of making a rider safer while wearing a helmet when riding was declining during the post survey. This suggested that the message of communication about this benefit was not well registered (an decrease from 58% strongly agreeing during pre survey to 56% strongly agreeing during the post survey).

Q: Can you tell me in your own words a reason why you said wearing a helmet is not necessary?



There are still a few respondents, (7% in the "pre" and 4% in the "post" sample), who believe that a helmet is unnecessary if they drive carefully and when they travel short distance. Other reasons given for not needing to wear a helmet were related to the "inconveniences " encountered when wearing one —making the head feel too warm, it's hard to look back etc. Please note that these figures are based on a very small sample.

Q: I am going to read out to you some reasons why people do not wear a helmet. Could you please tell me how much you would agree or disagree to each statement using 5 point scale where 5 is "agree strongly" and 1 is "disagree strongly"



Reason 1: More of those surveyed after the Road Safety Campaign (63%) seem to perceive themselves as being a "safe rider". Compared to those surveyed prior to the campaign, just about half as many thought this of themselves.

Reason 2: After the Campaign there was an increase in those respondents who think that a helmet is unnecessary because they were travelling as a passenger on a motorcycle with a rider who is safe. This perception was much weaker before the Road Safety Campaign. Please note that this is based on very small sample sizes.

Reason 3: Slightly more respondents surveyed after the campaign claimed that they are not used to wearing a helmet (63% compared to 40%), although these differences would not be significant based on the very small sample size.

Reason 4: Both the groups (pre and post survey) felt that if they wear helmets they could not hear any traffic sounds and agreed with this as a reason for not wearing a helmet.

Reason 5: Despite the campaign, there are still a few of them who are discouraged from wearing a helmet because they believe it is difficult for them to turn their heads.

Reason 6: Many of the respondents surveyed before and after the Road Safety Campaign still feel that wearing a helmet makes them feel very warm.

Reason 7: The intention to buy a helmet has not drastically changed despite the Road Safety Campaign. Please note that there were very small samples are involved.

Reason 8: One very clear difference of opinion before and after the campaign is the perception whether a helmet is affordable or not (although still based on very small samples). The majority of the pre-test sample thought that they could not afford a helmet. However respondents in the post-test sample had the opposite view, in that they could actually afford one.

Reason 9: After launching the Road Safety Campaign, the perception that it is unnecessary to wear a helmet because not many people are wearing one has changed.

Reason 10: After launching the Road Safety Campaign, the perception has changed and that many people are now wearing helmets.

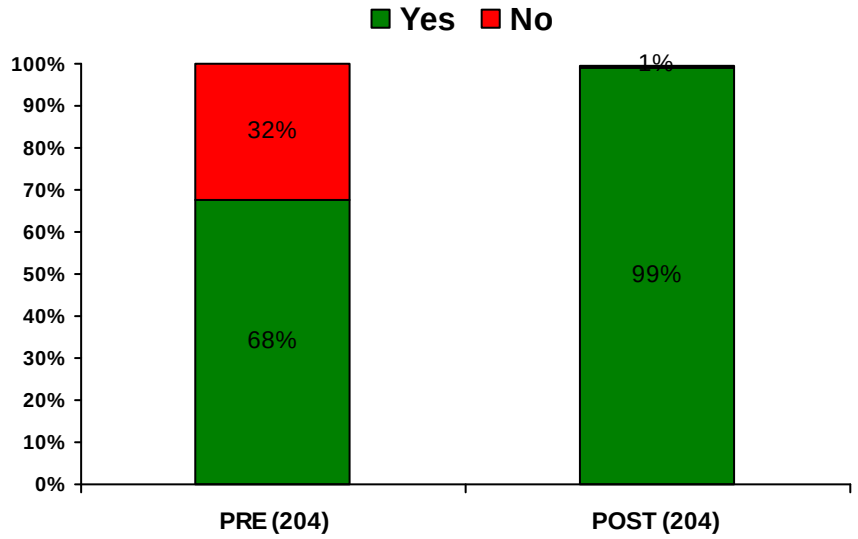
Reason 11: The attitude pertaining to the inconvenience of wearing a helmet has not changed much amongst those who think this is unnecessary, before and after the Campaign. They are concerned that it is troublesome to keep one with them.

Reason 12: A relatively smaller proportion of respondents surveyed after the Campaign felt that wearing a helmet is unnecessary because they travel short distances.

Reason 13: More than half of the pre and post survey groups claimed that wearing a helmet makes them feel not fashionable. This attitude exists among both groups, but after the campaign, respondents did have mixed feelings on this issue. While the majority still agreed with this statement, there were 25% who did not think so.

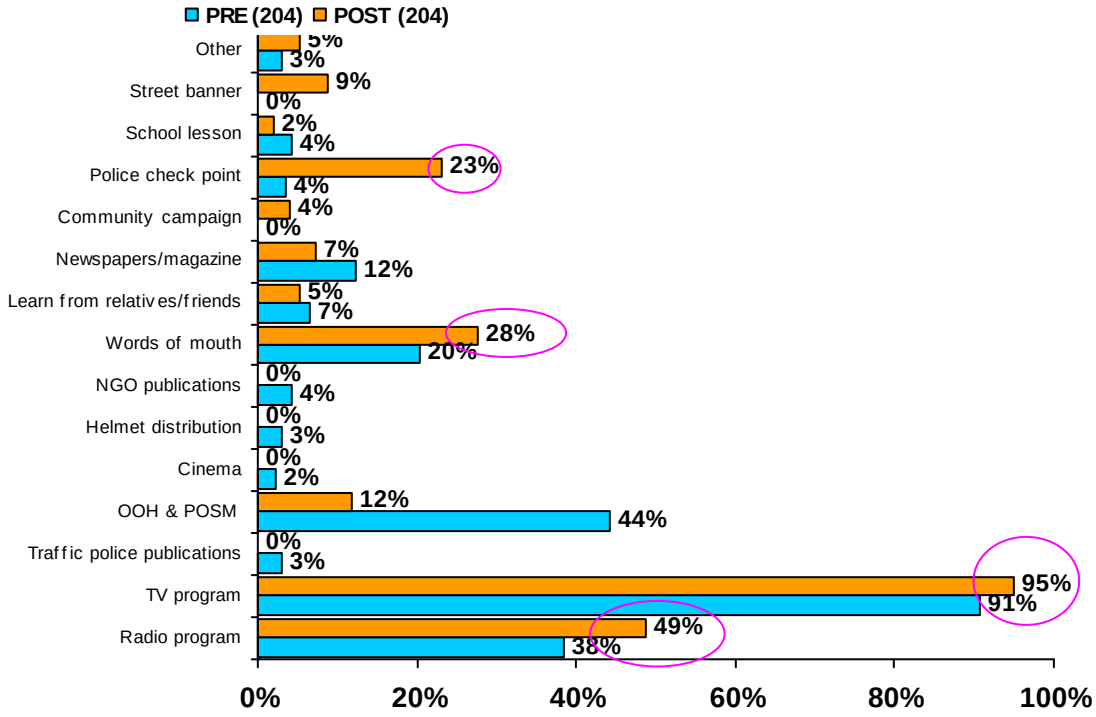
E - AWARENESS OF THE CAMPAIGN REGARDING WEARING A HELMET

Q: Have you heard about the "helmet wearing" campaign?



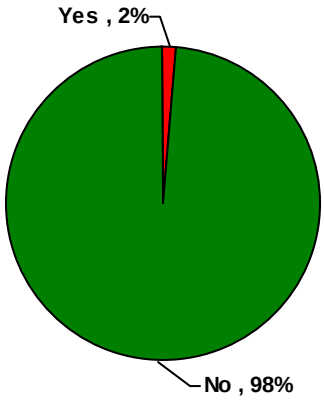
As high as 99% of the post-test sample heard about the comprehensive campaign to encourage people to wear helmets. This proportion was much lower in the sample taken prior to the comprehensive Road Safety Campaign (68%), indicating an increase of 31 percent.

Q: **What was the source from which you learned about it?**



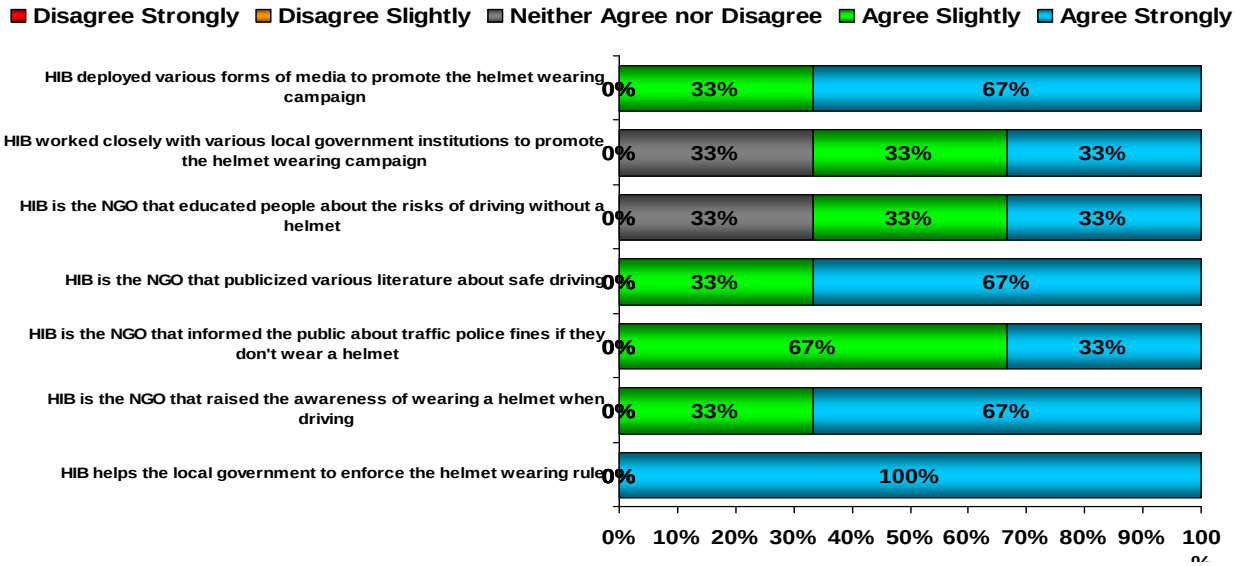
The two samples surveyed before and after the campaign claimed to have heard about the need to wear helmets from advertisements on TV and the radio. However, after the campaign, at least a quarter knew about it from police checks points and from word of mouth, and these are both significant.

Q: Do you know this organisation? SHOW CARD



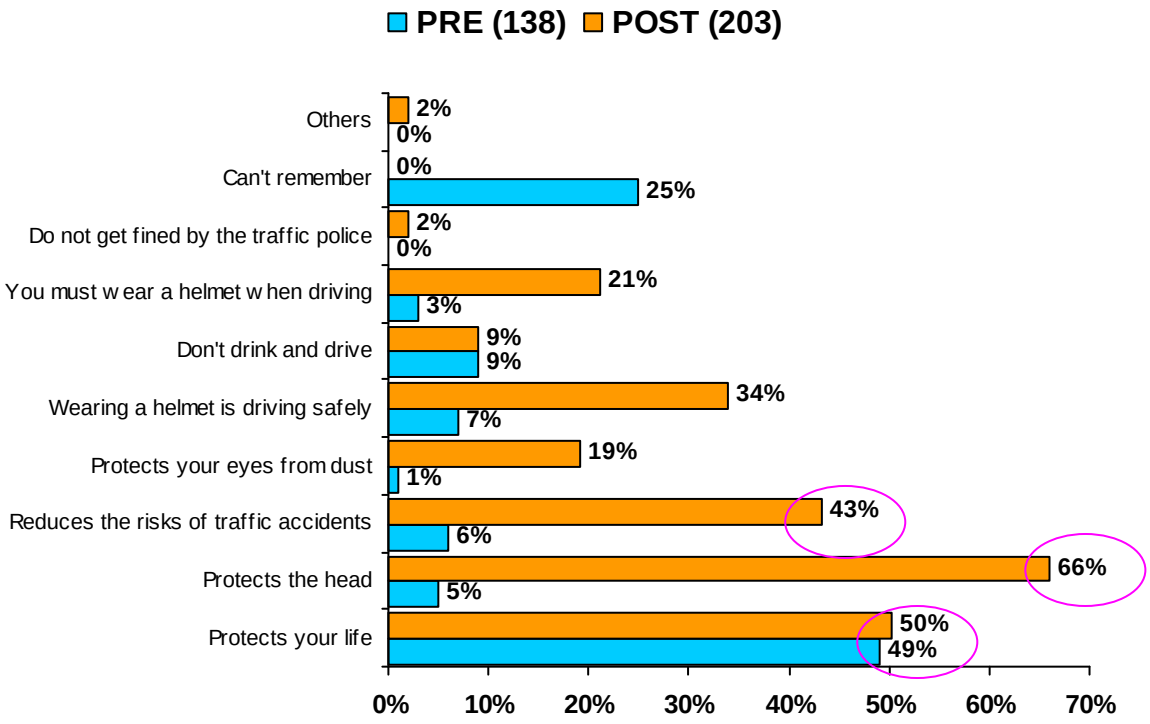
As many as 98% of respondents claimed that they did not know the Handicap International Belgium logo.

Q: Could you please tell me how much you would agree or disagree with each statement using a 5 point scale?



Respondents' views on HIB are generally positive on all prelisted attributes. However, these are based on only three respondents who claimed to know the organisation.

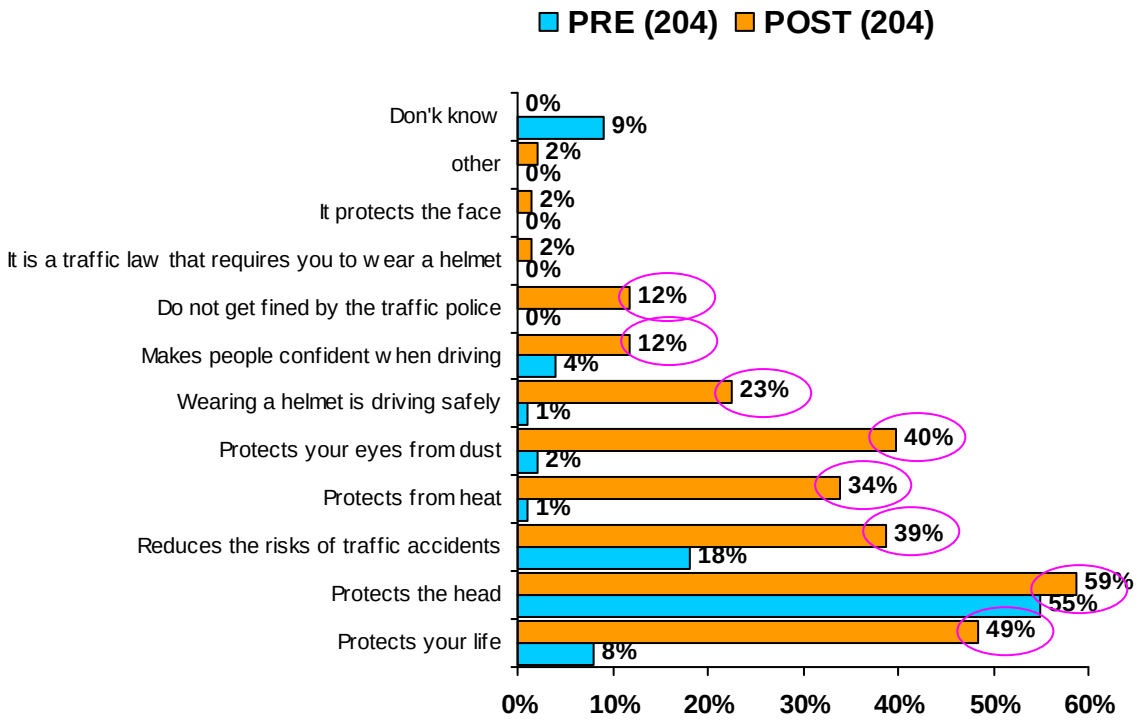
Q: Can you recall the key message of the Road Safety Campaign which you have learned about helmet wearing?



Respondents' recall of the key message of the campaign about wearing helmets was that "it protects your life". There were very few who recalled other messages. After the campaign, the key messages of protecting the head from injuries (66%), protecting one's life (50%),

reducing risks involved in accidents (43%) and that it means driving safely (34%) were more well received.

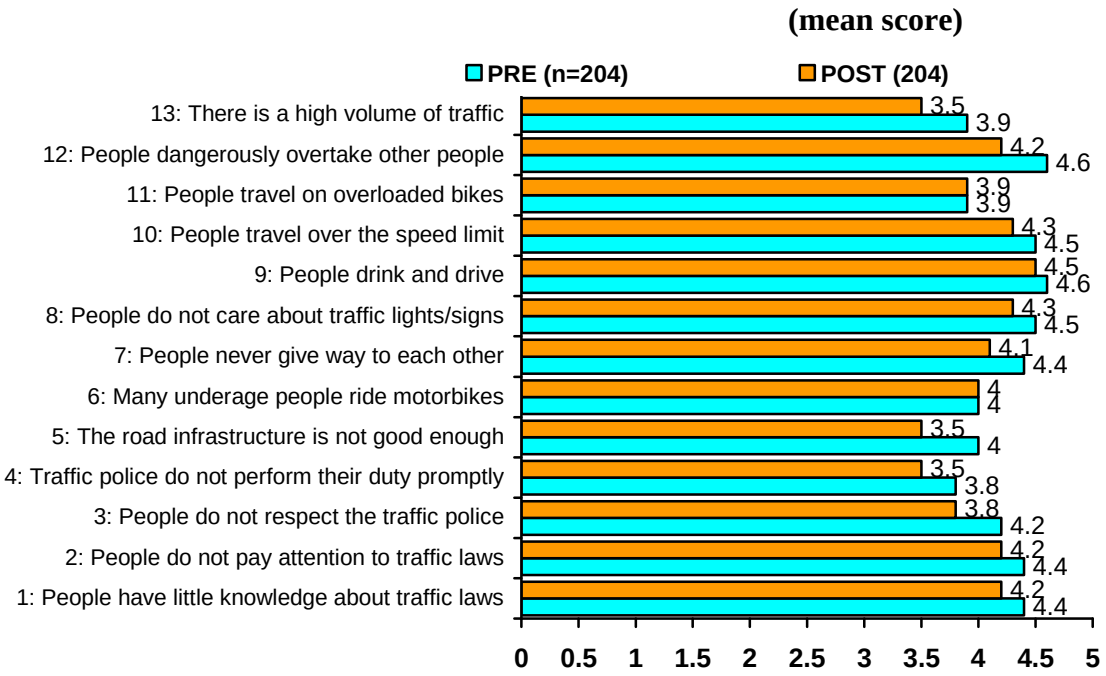
Q: Can you tell me, in your opinion which is the most important benefit that would make you wear a helmet?



Prior to the campaign, the general opinion about wearing a helmet was that one did it to protect the head and reduce risks when involved in traffic accidents. However after the Campaign, the respondents perceived many more benefits. The most significant change is in the perception that it protects one's life (a rise from 8% before, to 49% after the campaign), it protects the head and reduces the risks related to traffic accidents.

F - PERCEIVED CAUSES OF MOTORCYCLE ACCIDENTS

Q: I will read you some statements about the causes of motorcycle accidents. Please use a 5 point scale to rate your opinion.



Cause 1: The general opinion before and after the Road Safety Campaign has not changed significantly. About 80% of the respondents in both samples still believe that people have very little knowledge of traffic laws, and that this is the reason why accidents occur.

Cause 2: Most of the respondents (at least 80%) also agree that accidents happen because people tend to disregard traffic laws.

Cause 3: This is one of the few aspects where some change was observed before and after the campaign. Before, as much as 81% of the respondents were of the opinion that traffic accidents occur because people do not respect the traffic police. This perception significantly reduced to 66% of the sample taken after the campaign.

Cause 4: The impression that traffic police do not perform their duty promptly is evident in both samples. However, the overall attitude was slightly better after the campaign (from a mean of 3.8 on a 5 point scale to a mean of 3.5 afterwards).

Cause 5: There has been a slight improvement in the way people regard road infrastructure. As many as 78% of the sample believed that this causes traffic accidents. This figure dropped to 51% after the campaign was launched.

Cause 6: There was no change in the observation that traffic accidents happen because underage people ride motorbikes. This perception is still firmly held as it was shared by 76% of the sample, even after the campaign.

Cause 7: There is also a strong general sentiment that there is a lack of courtesy on the roads, and that is why accidents occur. There was a very slight improvement in regard to this perception, based on the sample taken after the campaign (from 90% “before”, down to 77%” after”).

Cause 8: There was very little change in regard to this aspect. 89% of the sample taken prior to the campaign thought traffic lights are not taken seriously. This view slightly decreased to 79%, as was observed in the post survey group.

Cause 9: The fact that people "drink and drive" is a serious condition that causes many accidents, as this perception was held by most of the respondents in the sample. This was also noted in the sample taken after the campaign (92% "before" compared to 90% "after").

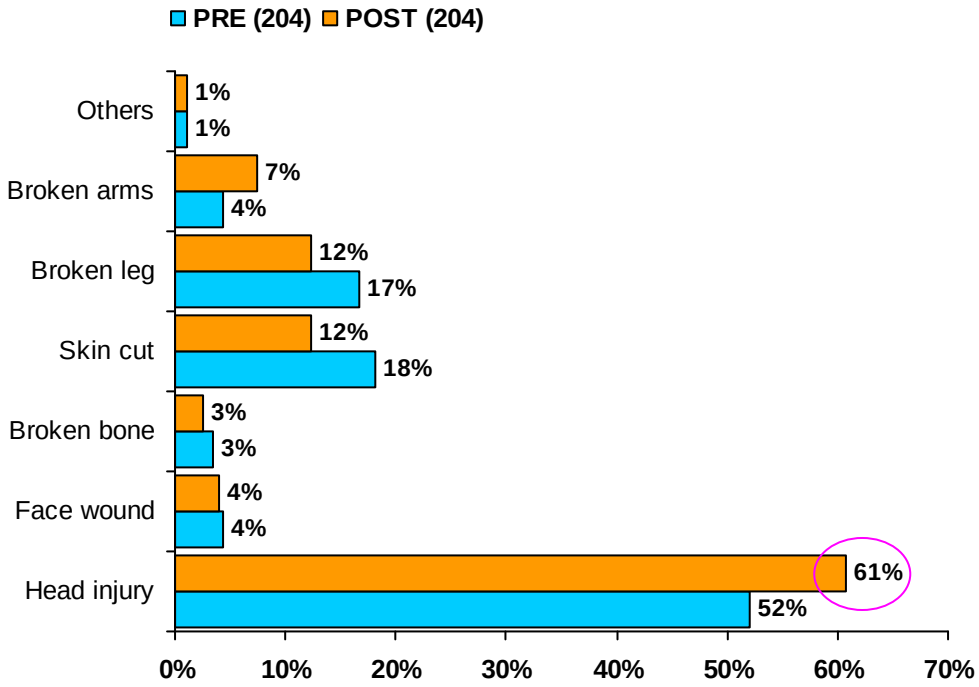
Cause 10: There has been no major change in the perception that traffic accidents are caused by people who travel over the speed limit. The same proportion of respondents with this notion (87% compared to 88%) was observed in both samples.

Cause 11: The overloading of motorbikes as a cause of accidents is also a widely held view as 7 out of 10 respondents from both samples thought that this is the case.

Cause 12: Incidents of dangerously overtaking others are believed to be another cause of traffic accidents by most of the respondents in both samples. There was a very slight decline from 95% who agreed with this statement, down to 85% in the sample taken after the campaign.

Cause 13: In the pre-test sample, more than half (63%) thought that a high volume of traffic is one of the main causes of motorcycle accidents. The post-test sample also held a similar view as 56% of the respondents believed that this is one of the causes.

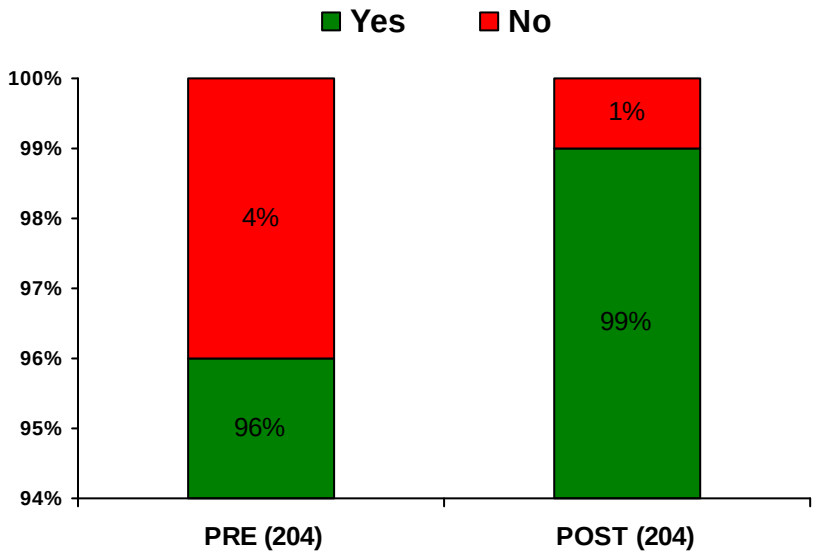
Q: I am going to read out some injuries resulting from motorcyclists' traffic accidents. Could you tell me which you think is the most common?



Respondents believed that the most common type of injury is to the head (52% for the pre-test sample and 61% in the post-test sample). Other types of injuries involving arms, legs, skin or bones were thought to be far less prevalent.

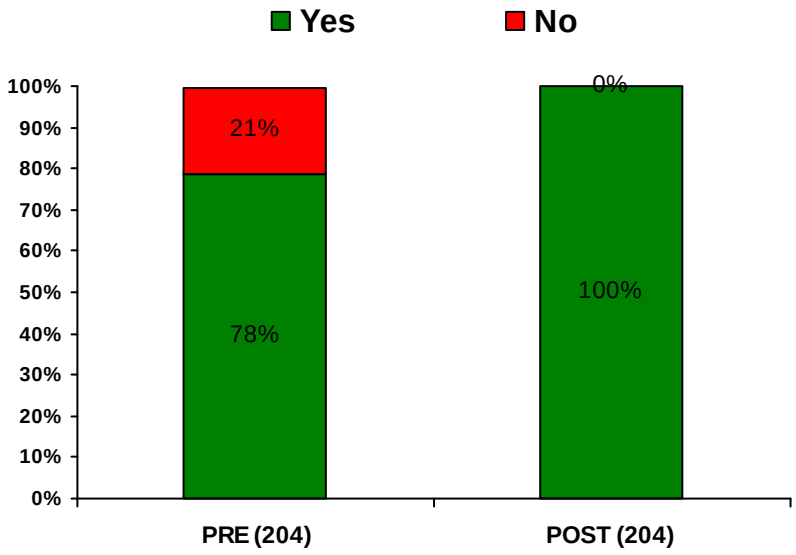
G - PERCEPTION OF THE TRAFFIC LAW WHICH REQUIRES THE WEARING OF HELMETS

Q: Do you know that "motorcyclist are required to a wear helmet" according to the traffic law?



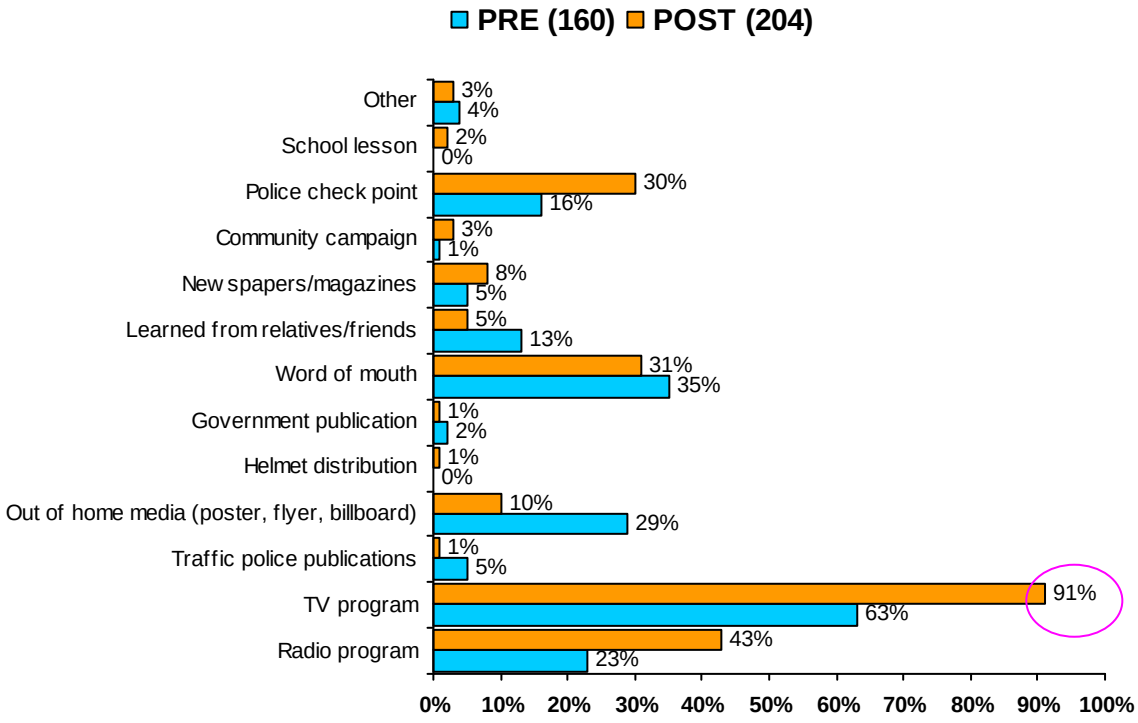
There was a very high awareness of the traffic law which compels people travelling on a motorcycle to wear a helmet. Nine out of ten respondents already knew about this prior to the campaign, and this figure rose to 99% after the campaign.

Q: Do you know that people riding a motorbike and not wearing a helmet will be fined?



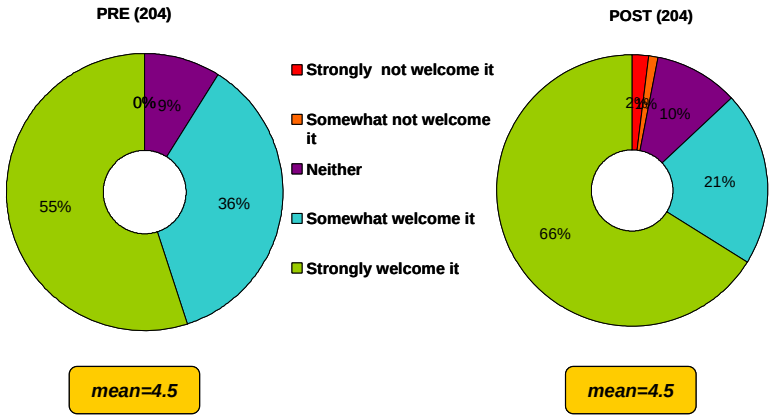
Prior to the Road Safety Campaign, only 78% of the respondents claimed to know that they would be fined if they did not wear a helmet. After the campaign, this figure increased to 100% who stated that they were aware of this fact.

Q: **From where did you learn about this law and the fines involved?**



Those respondents who knew about the fines for not wearing a helmet even before the campaign had found out from TV, word of mouth and other media such as flyers, posters and billboards. As for the sample taken after the campaign, awareness had mainly come from TV (91% claimed to have found out about it from this medium). Radio programs, police check points and word of mouth were also important sources of information.

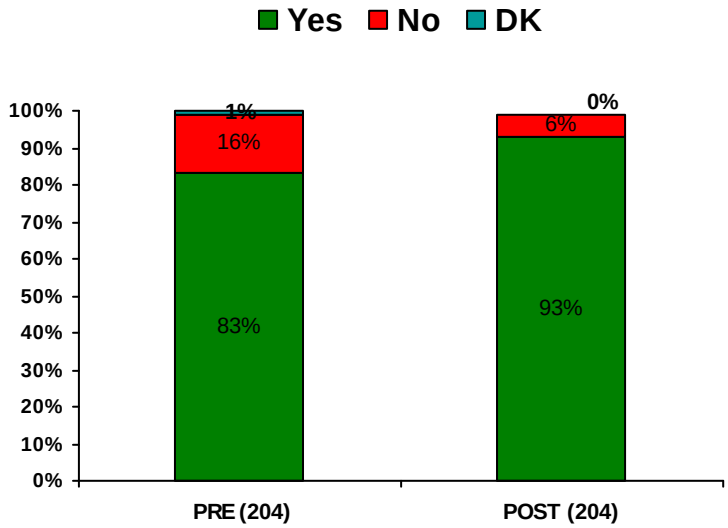
Q: **What is your reaction to the helmet wearing law being enforced?**



People were responding positively to the law requiring the wearing of a helmet, both before and after the campaign, as 9 out of 10 respondents welcomed this new rule.

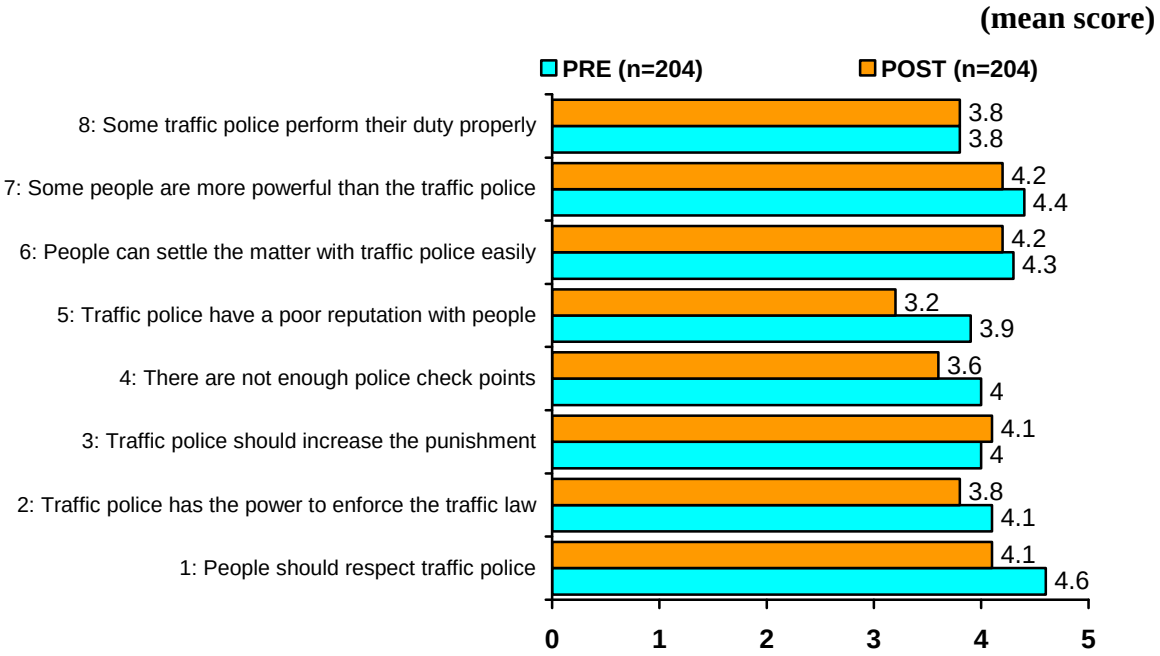
H - PERCEPTION OF TRAFFIC LAW ENFORCEMENT AND THE POLICE

Q: Would the enforcement of wearing a helmet by the traffic police increase your helmet wearing rate?



A very high proportion of respondents (83%) believed that more stringent enforcement by the traffic police will increase the incidence of people wearing a helmet. After the campaign this expectation rose even further to 93%.

Q: Which of the following statements would you agree or disagree with? Use a 5 point scale to rate your opinion.



Statement 1: Respondents were asked about their level of agreement or disagreement with a set of eight statements that describe different aspects related to the enforcement of traffic laws. There was strong agreement by a majority of respondents that people should respect the traffic police.

However a slight drop was noted as 92% agreed before the campaign compared to only 76% after the campaign.

Statement 2: For some reason, the perception that the traffic police have the power to enforce the traffic law clearly declined, as it dropped from 85% to 64% after the campaign.

Statement 3: There was an overwhelming agreement that police should increase the punishment for those who disobey the law, amongst the sample taken before and also after the campaign.

Statement 4: Prior to the campaign, three quarters of those interviewed had the impression that there were not enough police check points. After the campaign only about half of the sample had this impression.

Statement 5: After the campaign there was a slight improvement in the way in which people regard the traffic police. Previously a majority (62%) used to think that the police have a poor reputation. Now however, after the Road Safety Campaign, those who have this impression has reduced to 45% of the sample.

Statement 6: Prior to the campaign, some 89% thought that issues can easily be settled with the traffic police. This perception has not changed significantly even after the campaign (81% still had this impression).

Statement 7: There is a strong belief amongst 86% of the sample that there are some people who are more influential and powerful than the traffic police. There was no significant change in this perception even after the campaign as 86% agreed with the statement.

Statement 8: Despite the many perceived weaknesses of the traffic police force, a majority (a little over 60%) believe that some of the officers are really dedicated to their profession. This view was held both before and after the campaign.

Q: Do you have any suggestions about the wearing of helmets or the enforcement of the helmet wearing law?

RECOMMENDATIONS FROM PRE SURVEY	% Total
Educate everyone about the benefits of a helmet/risks involved when not using one	**35**
Sell helmets with motorbikes, or sell them at a lower price	**15**
Extend the campaign to rural areas	**14**
Strictly enforce traffic laws, and make offenders pay higher fines	**11**
Everyone must respect traffic regulations	**4**
Organise helmet distribution	**3**
The fine for not wearing helmet must be equally applied for everyone	**1**
All Others	**44**
Don't Know (DK)	**4**
Base (204)	

Prior to the Road Safety Campaign many people suggested that there should be more campaigns to educate people about both the risks of not wearing a helmet and also how a helmet can protect them from serious injury or even death. A smaller number of respondents recommended more stringent action and higher fines.

RECOMMENDATIONS FROM POST SURVEY	% Total
All drivers should wear helmets all the time for protection	**37**
Further promote the wearing of helmets, e.g., TV broadcasts	**19**
Strictly punish those who do not wear helmets	**7**
More strict enforcement of traffic laws by the police	**11**
Have more traffic police on the streets	**3**
Educate people to have a better understanding of traffic laws	**3**
Have ordinary people respect the law	**2**
Helmets should be sold at a lower price	**3**
Others	**19**
Don't Know / DK	**16**
Base (204)	

After the Road Safety Campaign, most of the respondents felt strongly about making people wear helmets at all times, and supported the continuation of TV broadcasts to promote this habit. Fewer respondents opted for the strict punishment of those people who do not wear helmets.

8. CONCLUSIONS

- The post traffic audit findings suggested that the helmet wearing rate have been increased both for drivers (from 24% to 56%) and passengers (from 6% to 11%).

- However the study also indicated that the helmet wearing rate amongst passengers remained very low (only 11%).

- The results of the audit confirmed that the helmet wearing rate are almost equal and consistently across different days in a week regardless of locations and time of the day.

- In terms of "correct and incorrect wearing proportion", the post audit results indicated that the correct wearing has been increased 15% (from 67% to 82%) amongst drivers and only 2% (from 84% to 86%) amongst passengers.

- The outcome of the traffic audit concluded that, the helmet wearing rate amongst the passengers remained very low.

- At least 8 out of 10 of the people covered in this survey reportedly drove motorbikes at least 10 times over the past two weeks, and about half of them rode as passengers at least 5 times over that period. Motorbikes are a dominant means of travel.

- Prior to the campaign, only 67% claimed to wear helmets but only 30% did so at all times. However, results of the post survey showed that the usage level has increased significantly. 98% claimed they wore helmets and 80% do so at all times. Thus, the potential for fatalities or serious head injuries for riders involved in traffic accidents has been significantly reduced by this campaign.

- The incidence of wearing helmets amongst passengers on motorbikes (and not as the main rider) remained low. After the campaign, the proportion of passengers wearing helmets at all times slightly increased from 18% to 24%. Therefore, most passengers on motorbikes are still exposed to possible death and serious injury if an accident occurs.

- Even before the Road Safety Campaign, about 90% of these motorists knew that it is necessary to wear a helmet, and thought that it is primarily to protect their head from environmental elements like dust, wind and rain. The need to protect their head and to prevent injuries in accidents were secondary considerations. They know that accidents are caused by a combination of factors such as the volume of traffic, a lack of respect for rules (e.g. under-age drivers, overloading, overtaking, high speeds, etc.) and a lack of courtesy on the road.

- The sample taken after the campaign implied that there has been a shift in perception about the benefits of wearing helmets. More of them think about protecting their life (up from a mere 9% to as high as 48%) and protecting themselves from several types of injuries, and not only from the rain, wind and dust. 22% are aware that they could be fined if they do not wear one.

- To some degree, the campaign did change people's perceptions of the real benefits of wearing helmets.

- Despite knowing about the campaign, a few still felt that helmets are unnecessary. Many of them believe they are safe drivers, or that they only travel for short distances and therefore accidents are unlikely. Other reasons given were that it is uncomfortable or cumbersome to wear, or that they feel it is not fashionable and that they tend to forget or lose it.

- Although these findings were based on a small sample size, it is assumed that these same factors are discouraging riders and passengers from wearing helmets <u>at all times</u>.

- As many as 99% are now aware of the campaign that encourages them to wear helmets, and they knew about it mainly from TV (95%), and radio (49%). About a quarter of them knew about it from police check points and word of mouth. Unfortunately, only 2% could identify HIB with the campaign.

- After the Road Safety Campaign, 100% of those interviewed now know about the traffic law that requires the wearing of a helmet and that a fine will be imposed for those that do not. Among the several sources of awareness, the most effective is TV, as 91% claimed to have found out about it from this medium.

- Nine out of ten believe that more stringent law enforcement will increase the incidence of helmet wearing, and that there should be a punishment for disobedience.

- Shifts in perception have been noted in other areas after the campaign.
  - Relatively less people (from 65% down to 45%) think the police have poor reputation.
  - Relatively less people (from 85% down to 64%) have the opinion that the police have the power to enforce the new helmet wearing regulation.

- In other aspects, not much has changed. It is still widely believed that matters with the police can be easily settled, some people are more powerful than the police, and that the majority (about 60%) think that policemen are really dedicated to their profession.

- The results suggest that the campaign has succeeded in fulfilling its intentions. Motorists welcome the educational program about the wearing of helmets and wanted this to continue or be extended to other geographical areas.

9. RECOMMENDATIONS

Based on the findings, here are some foods for thought:-

- To launch the activity to address the risk of being as passenger when travelling by motorcycle without wearing a helmet. Not only to emphasize on the risk aspect but also to register the disobedience of the law too.

- Traffic police should re-enforce a strict law on the passenger travel discipline and it is by law that the driver and the passenger must wear helmet.

- To set up the rule that every motor-taxi drivers must have spare helmet to serve their customers and if any drivers carry the passengers without helmet the would face fine as well. Therefore, any law enforcement involving the need for helmets, and fines should apply to both the main rider and the passenger on his/her motorbike.

- The passenger will be fined twice compared to the driver if travelling without wearing a helmet.

- Any activity developed as a follow-up to this campaign must address these issues so that more people will voluntarily wear a helmet rather than being threatened by fines. Operators of “motorcycle taxis” in particular, must be encouraged to provide a spare helmet for their passengers.

- The follow-up activity can also be coordinated with “suppliers” e.g. selling motorbikes with matching helmets, newer designs using lighter materials that adhere to the minimum safety requirements, or more fashionable designs such as denim prints or the use of blue jeans fabric as exterior cover, etc.

- The message of the “Road Safety” campaign was less focused on the role and obligation of a good citizenship that need to respect the traffic law. But the campaign simply demonstrates fining those who disobey the law. Hence, we suggest to focus on the emotional approach as well as the functional benefits.

- There should be strong encouragement and set an effective rules from the government and various stakeholders for motorcycle and taxi drivers to have driving license. A qualified motorcycle owner must have valid driver license.

- The government should restrict to only quality motorcycles that allow to travel on road – motorcycle that has completed lighting accessories, and completely safety devices such proper brake and good quality of tyre.

- For students at high school, if they ride their bicycles and/or motorcycles with wearing helmet, a ticket for bike parking and guarding is given to them for free. Whereas for those who disobey this rule would not allow to enter the school premise.

- Wearing a helmet is one of the study key performance indicator as corporate citizen and well being, if anyone fail to comply with the rule thus the score will be deducted.

- Introduce topic of "Road Safety" in school curriculum. They need to know the traffic laws and practice themselves in order to get score passing the examination.

- The government should work with the cooperate stakeholders namely ANZR, Telecom Malaysia International, Mobitel, Coca-Cola, BAT, Tiger beer and so on to sponsor the helmet to poor students and teachers.

- There should be a computerized data base that the traffic police can track those who disobey the traffic law. If someone consistently commit mistake (disobey the traffic law) for three times;
  - their names will be sent to Cooperate company and NGOs to acknowledging their bad behavior then they would face difficult to get the jobs. At the mean time we need a support from the cooperate stakeholder too that everyone of their employee must wear helmet;

  - the miss-conducted names will be appeared in the big boards in markets, parks, and on the side of the main streets to feature their faults.

- The traffic polices should be deployed everywhere, every corner – not just at the check points. Doing this, the traffic police will have more chances to enforce the laws. But this message needs to be communicated clearly with the traffic police.

- The message of "If you get drunk, do not drive" should be incorporated in the "Road Safety" campaign.

- The under-aged driving also must restricted.

- HIB should aim for higher visibility and take the opportunity of telling the public about its purpose and vision, in any of its follow-up activities.

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10-APPENDIX

A- Appendix for Pre Audit

OVERALL WEARING RATE

DRIVER

Time	Average Helmet Wearing Rate							Total		
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall
	25.18%	22.88%	22.07%	23.36%	26.17%	22.72%	22.93%	23.86%	22.83%	23.58%

PASSENGER

Time	Average Helmet Wearing Rate							Total		
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall
	5.53%	6.37%	6.36%	6.45%	6.92%	6.26%	5.26%	6.30%	5.83%	6.18%

WEARING RATE (DRIVER)

Location : Sihanouk Blvd (check point)

Direction : East - West

Time	Average Helmet Wearing Rate							Total		
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall
	31.05%	23.92%	21.05%	24.87%	29.58%	28.57%	34.12%	25.57%	30.76%	26.73%

WEARING RATE (PASSENGER)

Time	Average Helmet Wearing Rate							Total		
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall
	10.19%	10.96%	10.75%	10.74%	10.61%	10.58%	8.38%	10.66%	9.71%	10.42%

WEARING RATE (DRIVER)

Location : Road No. 182 (market)

Direction : West - East

Time	Average Helmet Wearing Rate							Total		
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall

23.98%	22.88%	25.51%	25.77%	27.62%	25.12%	22.07%	25.06%	23.69%	24.69%

WEARING RATE (PASSENGER)

Time	Average Helmet Wearing Rate							Total		
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall
	5.29%	5.13%	5.54%	5.65%	6.51%	6.09%	3.66%	5.58%	4.78%	3.35%

WEARING RATE (DRIVER)
Location : Tchekoslovaquie Road (school)
Direction : South - North

Time	Average Helmet Wearing Rate							Total		
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall
	25.44%	20.00%	21.88%	20.28%	23.25%	23.69%	22.57%	21.97%	23.20%	22.32%

WEARING RATE (PASSENGER)

Time	Average Helmet Wearing Rate							Total		
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall
	4.72%	6.95%	5.87%	6.54%	7.49%	6.07%	6.57%	6.16%	6.26%	6.18%

WEARING RATE (DRIVER)
Location : Sok Hok Road (small road)
Direction : South - North

Time	Average Helmet Wearing Rate							Total		
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall
	20.40%	23.64%	19.88%	21.50%	24.69%	14.85%	18.51%	21.88%	16.26%	20.04%

WEARING RATE (PASSENGER)

Time	Average Helmet Wearing Rate							Total		
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall
	3.69%	5.20%	5.43%	6.11%	3.96%	5.76%	4.72%	4.75%	5.34%	4.91%

WEARING RATE (DRIVER)

Location

: Kampuchea Krom Blvd (main road)

Direction

: West-East

Time	Average Helmet Wearing Rate							Total		
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall
	27.62%	24.69%	22.83%	25.64%	26.80%	28.16%	22.22%	25.38%	25.44%	25.38%

WEARING RATE (PASSENGER)

Time	Average Helmet Wearing Rate							Total		
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall
	5.58%	5.62%	5.89%	5.22%	7.26%	4.95%	5.57%	5.84%	5.18%	5.66%

Overall Correct/Incorrect Helmet Wearing (Driver)

Days	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	4087	1749	5836	2148	102	2250	8086
	9.30-10.30	4018	1006	5024	2843	84	2927	7951
	4.30-5.30	3812	1680	5492	2230	156	2386	7878
Sub-Total		11917	4435	16352	7221	342	7563	23915
Weekend	6.30-7.30	1250	482	1732	673	25	698	2430
	9.30-10.30	1517	431	1948	951	73	1024	2972
	4.30-5.30	1106	440	1546	653	30	683	2229
Sub-Total		3873	1353	5226	2277	128	2405	7631
Grand Total		15790	5788	21578	9498	470	9968	31546

Overall Correct/Incorrect Helmet Wearing (Passenger)

Days	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	226	753	979	43	73	116	1095
	9.30-10.30	264	659	923	143	78	221	1144
	4.30-5.30	270	752	1022	83	135	218	1240
Sub-Total		760	2164	2924	269	286	555	3479
Weekend	6.30-7.30	70	260	330	20	29	49	379
	9.30-10.30	99	294	393	28	53	81	474
	4.30-5.30	74	226	300	26	51	77	377
Sub-Total		243	780	1023	74	133	207	1230
Grand Total		1003	2944	3947	343	419	762	4709

Correct/Incorrect Helmet Wearing (Driver)

Location: **Sihanouk Blvd**
Direction: **East-West**

Days	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	1029	364	1393	541	34	575	1968
	9.30-10.30	1205	421	1626	1217	26	1243	2869
	4.30-5.30	1257	676	1933	598	63	661	2594
Sub-Total		3491	1461	4952	2356	123	2479	7431
Weekend	6.30-7.30	343	92	435	199	13	212	647
	9.30-10.30	382	98	480	195	12	207	687
	4.30-5.30	326	110	436	163	20	183	619
Sub-Total		1051	300	1351	557	45	602	1953
Grand Total		4542	1761	6303	2913	168	3081	9384

Correct/Incorrect Helmet Wearing (Passenger)

Days	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	43	105	148	8	28	36	184
	9.30-10.30	48	127	175	39	26	65	240
	4.30-5.30	71	181	252	24	54	78	330
Sub-Total		162	413	575	71	108	179	754
Weekend	6.30-7.30	10	40	50	5	6	11	61
	9.30-10.30	18	46	64	5	9	14	78
	4.30-5.30	14	55	69	10	10	20	89
Sub-Total		42	141	183	20	25	45	228
Grand Total		204	554	758	91	133	224	982

Correct/Incorrect Helmet Wearing (Driver)

Location: **Road No. 182**
Direction: West-East

Days	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	1382	493	1875	691	20	711	2586
	9.30-10.30	1270	333	1603	996	27	1023	2626
	4.30-5.30	1175	470	1645	692	44	736	2381
Sub-Total		3827	1296	5123	2379	91	2470	7593
Weekend	6.30-7.30	457	120	577	253	10	263	840
	9.30-10.30	482	202	684	308	52	360	1044
	4.30-5.30	337	131	468	195	6	201	669
Sub-Total		1276	453	1729	756	68	824	2553
Grand Total		5103	1749	6852	3135	159	3294	10146

Correct/Incorrect Helmet Wearing (Passenger)

Days	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	50	162	212	14	18	32	244
	9.30-10.30	63	178	241	26	19	45	286
	4.30-5.30	59	133	192	16	29	45	237
Sub-Total		172	473	645	56	66	122	767
Weekend	6.30-7.30	22	70	92	3	5	8	100
	9.30-10.30	22	69	91	5	10	15	106
	4.30-5.30	19	42	61	2	6	8	69
Sub-Total		63	181	244	10	21	31	275
Grand Total		235	654	889	66	87	153	1042

Correct/Incorrect Helmet Wearing (Driver)

Location: **Tchekoslovaquie road**
Direction: South - North

Days	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	1488	641	2129	810	48	858	2987
	9.30-10.30	1364	384	1748	955	34	989	2737
	4.30-5.30	1388	656	2044	775	53	828	2872
Sub-Total		4240	1681	5921	2540	135	2675	8596
Weekend	6.30-7.30	404	199	603	234	10	244	847
	9.30-10.30	562	143	705	345	14	359	1064
	4.30-5.30	485	197	682	273	20	293	975
Sub-Total		1451	539	1990	852	44	896	2886
Grand Total		5691	2220	7911	3392	179	3571	11482

Correct/Incorrect Helmet Wearing (Passenger)

Days	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	73	218	291	6	9	15	306
	9.30-10.30	81	170	251	35	13	48	299
	4.30-5.30	82	227	309	13	31	44	353
Sub-Total		236	615	851	54	53	107	958
Weekend	6.30-7.30	20	38	58	5	10	15	73
	9.30-10.30	33	84	117	10	22	32	149
	4.30-5.30	22	69	91	9	27	36	127
Sub-Total		75	191	266	24	59	83	349
Grand Total		311	806	1117	78	112	190	1307

Correct/Incorrect Helmet Wearing (Driver)

Location: **Sok Hok Road**
Direction: South - North

Days	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	512	239	751	377	17	394	1145
	9.30-10.30	657	125	782	540	12	552	1334
	4.30-5.30	634	266	900	531	34	565	1465
Sub-Total		1803	630	2433	1448	63	1511	3944
Weekend	6.30-7.30	150	52	202	107	5	112	314
	9.30-10.30	275	43	318	202	7	209	527
	4.30-5.30	173	60	233	143	4	147	380
Sub-Total		598	155	753	452	16	468	1221
Grand Total		2401	785	3186	1900	79	1979	5165

Correct/Incorrect Helmet Wearing (Passenger)

Days	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	25	60	85	9	9	18	103
	9.30-10.30	20	50	70	22	10	32	102
	4.30-5.30	19	57	76	13	14	27	103
Sub-Total		64	167	231	44	33	77	308
Weekend	6.30-7.30	4	20	24	3	6	9	33
	9.30-10.30	7	31	38	6	8	14	52
	4.30-5.30	8	28	36	2	7	9	45
Sub-Total		19	79	98	11	21	32	130
Grand Total		83	246	329	55	54	109	438

Correct/Incorrect Helmet Wearing (Driver)

Location : **Kampuchea Krorm Blvd**
Direction: West - East

Days	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	705	376	1081	270	17	287	1368
	9.30-10.30	727	164	891	352	11	363	1254
	4.30-5.30	615	288	903	232	25	257	1160
Sub-Total		2047	828	2875	854	53	907	3782
Weekend	6.30-7.30	239	111	350	79	0	79	429
	9.30-10.30	198	43	241	96	0	96	337
	4.30-5.30	111	52	163	42	0	42	205
Sub-Total		548	206	754	217	0	217	971
Grand Total		2595	1034	3629	1071	53	1124	4753

Correct/Incorrect Helmet Wearing (Passenger)

Days	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	35	208	243	6	9	15	258
	9.30-10.30	52	134	186	21	10	31	217
	4.30-5.30	39	154	193	17	7	24	217
Sub-Total		126	496	622	44	26	70	692
Weekend	6.30-7.30	14	92	106	4	2	6	112
	9.30-10.30	19	64	83	2	4	6	89
	4.30-5.30	11	32	43	3	1	4	47
Sub-Total		44	188	232	9	7	16	248
Grand Total		170	684	854	53	33	86	940

Appendix for Post Audit

OVERALL WEARING RATE (DRIVER)

Time	Average Helmet Wearing Rate									
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall
	55.55%	55.55%	55.55%	55.55%	55.55%	52.63%	55.55%	55.55%	55.55%	55.55%

WEARING RATE (PASSENGER)

Time	Average Helmet Wearing Rate									
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall
	10.10%	11.11%	11.23%	10.63%	10.75%	10.86%	13.33%	10.75%	12.04%	11.36%

WEARING RATE (DRIVER)
Location
: Sihanouk Blvd (check point)
Direction
: East - West

Time	Average Helmet Wearing Rate									
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall
	52.63%	47.61%	52.63%	52.63%	55.55%	58.82%	66.66%	52.63%	62.50%	58.82%

WEARING RATE (PASSENGER)

Time	Average Helmet Wearing Rate									
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall
	9.25%	11.11%	16.12%	12.19%	11.23%	10.10%	13.69%	11.62%	11.62%	11.62%

WEARING RATE (DRIVER)
LocationRoad No. 182
: (market)
Direction
: West - East

Time	Average Helmet Wearing Rate									
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall
	50.00%	47.61%	58.82%	55.55%	55.55%	50.00%	52.63%	55.55%	52.63%	55.55%

WEARING RATE (PASSENGER)

Time	Average Helmet Wearing Rate									
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall
	9.70%	12.34	9.43%	8.47%	9.43%	7.75%	7.75%	9.80%	9.80%	9.80%

WEARING RATE (DRIVER)
Location : Tchekoslovaquie Road (school)
Direction : South - North

Time	Average Helmet Wearing Rate									
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall
	58.82%	52.63%	58.82%	55.5%	55.55%	43.47%	55.55%	58.82%	50.00%	55.55%

WEARING RATE (PASSENGER)

Time	Average Helmet Wearing Rate									
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall
	10.98%	11.90%	13.33%	16.66%	12.98%	14.28%	14.70%	12.98%	14.49%	13.69%

WEARING RATE (DRIVER)
Location : Kampuchea Krom Blvd (main road)
Direction : West-East

Time	Average Helmet Wearing Rate									
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall
	58.82%	66.66%	50.00%	58.82%	55.55%	58.82%	58.82%	58.82%	58.82%	58.82%

WEARING RATE (PASSENGER)

Time	Average Helmet Wearing Rate									
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall
	11.11%	13.33%	11.49%	13.51%	14.70%	13.33%	10.41%	12.82%	11.76%	12.34%

WEARING RATE (DRIVER)

Location

: Sok Hok Road (small road)

Direction

: South - North

Time	Average Helmet Wearing Rate									
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall
	58.82%	55.55%	50.00%	52.63%	55.55%	52.63%	47.61%	55.55%	50.00%	52.63%

WEARING RATE (PASSENGER)

Time	Average Helmet Wearing Rate									
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekday	Weekend	Overall
	9.61%	8.26%	8.69%	7.35%	7.75%	11.11%	9.09%	9.90%	10.00%	9.95%

Overall Correct/Incorrect Helmet Wearing (Driver)

Day	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	11021	3293	14314	3461	154	3615	17929
	9.30-10.30	13022	2642	15664	4703	140	4843	20507
	4.30-5.30	13007	4194	17201	4105	184	4289	21490
Sub-Total		37050	10129	47179	12269	478	12747	59926
Weekend	6.30-7.30	3932	818	4760	1214	35	1249	6009
	9.30-10.30	5041	893	5934	1949	66	2015	7949
	4.30-5.30	4713	1259	6254	1445	62	1507	7761
Sub-Total		13686	2970	16948	4608	163	4771	21719
Grand Total		50736	13099	64127	16877	641	17518	81645

Overall Correct/Incorrect Helmet Wearing (Passenger)

Day	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	466	1343	1809	71	114	185	1994
	9.30-10.30	470	1063	1533	115	88	203	1736
	4.30-5.30	592	1445	2037	115	112	227	2264
Sub-Total		1528	3851	5379	301	314	615	5994
Weekend	6.30-7.30	115	369	484	30	20	50	534
	9.30-10.30	178	526	704	49	41	90	794
	4.30-5.30	163	594	767	35	46	81	848
Sub-Total		456	1489	1955	301	314	615	2570

Correct/Incorrect Helmet Wearing (Driver)

Location: Sihanouk corner Monivong

Direction: East to West (Suzuki → Kirirum Cenima)

Day	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	2773	549	3322	657	25	682	4004
	9.30-10.30	3708	722	4430	1005	35	1040	5470
	4.30-5.30	4100	1286	5386	1129	43	1172	6558
Sub-Total		10581	2557	13138	2791	103	2894	16032
Weekend	6.30-7.30	902	189	1091	260	3	263	1354
	9.30-10.30	1040	197	1237	324	3	327	1564
	4.30-5.30	1218	328	1546	265	3	268	1814
Sub-Total		3160	714	3874	849	9	858	4732
Grand Total		13741	3271	17012	3640	112	3752	20764

Correct/Incorrect Helmet Wearing (Passenger)

Location: Sihanouk corner Monivong

Direction: (From corner of Nearng Kong Hing → Orussey Market)

Day	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	54	157	211	10	13	23	234
	9.30-10.30	109	205	314	24	11	35	349
	4.30-5.30	113	314	427	50	26	76	453
Subtotal		276	676	952	84	50	134	1036
Weekend	6.30-7.30	25	57	82	5	4	9	91
	9.30-10.30	39	101	140	10	3	13	153
	4.30-5.30	33	118	161	7	4	11	172
Subtotal		97	276	383	22	11	33	416
Grand Total		373	952	1325	106	61	167	1492

Correct/Incorrect Helmet Wearing (Driver)

Location: St.182 (near orussey market)

Direction: (From corner of Nearng Kong Hing → Orussey Market)

Day	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	2573	799	3372	777	54	831	4203
	9.30-10.30	3250	726	3976	1138	49	1187	5163
	4.30-5.30	2743	786	3529	908	31	939	4468
Subtotal		8566	2311	10877	2823	134	2957	13834
Weekend	6.30-7.30	1084	182	1276	413	21	434	1710
	9.30-10.30	1489	274	1763	619	42	661	2424
	4.30-5.30	796	262	1340	469	23	492	1832
Subtotal		3369	718	4379	1501	86	1587	5966
Grand Total		11935	3029	15256	4324	220	4544	19800

Correct/Incorrect Helmet Wearing (Passenger)

Location: St.182 (near orussey market)

Direction: (From corner of Nearng Kong Hing → Orussey Market)

Day	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	82	329	416	34	63	87	503
	9.30-10.30	85	261	346	41	55	96	442
	4.30-5.30	79	284	363	22	54	76	417
Subtotal		246	874	1125	97	172	259	1362
Weekend	6.30-7.30	25	94	119	12	10	22	141
	9.30-10.30	35	142	177	16	27	43	220
	4.30-5.30	25	129	154	12	26	38	192
Subtotal		85	365	450	40	63	103	553
Grand Total		331	1239	1570	137	235	362	1932

Correct/Incorrect Helmet Wearing (Driver)

Location: Near Bacc Touk High School

Direction: (Bacc Touk to Sukisoup)

Day	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	2960	1009	3969	1011	33	1044	5013
	9.30-10.30	2768	623	3391	1069	27	1096	4487
	4.30-5.30	3018	1212	4230	919	45	964	5194
Subtotal		8746	2844	11590	2999	105	3104	14694
Weekend	6.30-7.30	1016	242	1258	299	7	306	1564
	9.30-10.30	1102	244	1346	355	9	364	1710
	4.30-5.30	1336	367	1703	296	20	316	2019
Subtotal		3454	853	4307	950	36	986	5293
Grand Total		12200	3697	15897	3949	141	4090	19987

Correct/Incorrect Helmet Wearing (Passenger)

Location: St.169 (near Bacc Touk High School)

Direction: (From corner of Nearng Kong Hing → Orussey Market)

Day	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	124	297	421	10	17	27	448
	9.30-10.30	107	273	380	18	7	22	402
	4.30-5.30	225	388	629	10	13	23	642
Subtotal		456	958	1430	38	37	72	1492
Weekend	6.30-7.30	22	90	112	3	5	8	120
	9.30-10.30	43	133	176	6	4	13	189
	4.30-5.30	45	169	214	6	5	11	225
Subtotal		110	392	502	15	14	32	534
Grand Total		566	1350	1916	53	51	104	2020

Correct/Incorrect Helmet Wearing (Driver)

Location: St Sokhok

Direction: South to North

Day	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	1480	400	1880	610	30	640	2520
	9.30-10.30	2354	336	2690	1058	23	1081	3771
	4.30-5.30	2271	518	2789	835	38	873	3662
Subtotal		6105	1254	7359	2503	91	2594	9953
Weekend	6.30-7.30	478	91	569	149	1	150	719
	9.30-10.30	828	108	936	383	7	390	1326
	4.30-5.30	655	123	778	262	9	271	1049
Subtotal		1961	322	2283	794	17	811	3094

Grand Total	8066	1576	9642	3297	108	3405	13047

Correct/Incorrect Helmet Wearing (Passenger)

Location: St.Sok Hok

Direction: (From corner of Nearng Kong Hing → Orussey Market)

Day	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	34	100	134	1	6	7	141
	9.30-10.30	32	80	112	8	4	12	124
	4.30-5.30	52	149	201	9	14	23	215
Subtotal		118	329	447	18	24	42	480
Weekend	6.30-7.30	12	24	36	5	1	6	42
	9.30-10.30	19	44	63	8	1	9	72
	4.30-5.30	21	69	90	4	5	9	99
Subtotal		52	137	189	17	7	24	213

Grand Total	170	466	636	35	31	66	702

Correct/Incorrect Helmet Wearing (Driver)

Location St Kampuchea Krorm

Direction: West to East

Day	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	1235	536	1771	406	12	418	2189
	9.30-10.30	942	235	1177	433	6	439	1616
	4.30-5.30	875	392	1267	314	27	341	1608
Subtotal		3052	1163	4215	1153	45	1198	5413
Weekend	6.30-7.30	452	114	566	93	3	96	662
	9.30-10.30	582	70	652	268	5	273	925
	4.30-5.30	708	179	887	153	7	160	1047
Subtotal		1742	363	2105	514	15	529	2634

Grand Total	4794	1526	6320	1667	60	1727	8047

Correct/Incorrect Helmet Wearing (Passenger)

Location: St.Kampuchea Krom

Direction: (From corner of Nearng Kong Hing → Orussey Market)

Day	Time	Correct			Incorrect			Grand Total
		M	F	Sub-total	M	F	Sub-total	
Weekday	6.30-7.30	172	460	632	16	15	28	660
	9.30-10.30	137	244	327	24	11	35	362
	4.30-5.30	123	310	433	24	5	29	438
Subtotal		432	1014	1392	64	31	92	1460
Weekend	6.30-7.30	31	104	135	5	0	5	140
	9.30-10.30	42	106	148	9	6	15	163
	4.30-5.30	39	109	148	6	6	12	160
Subtotal		112	319	431	20	12	32	463

Grand Total	544	1333	1877	84	43	124	2001

THANK YOU

experience innovation