

# Child Restraint System (CRS) Incentive Road Tour Program: Initiatives to Increase the CRS Ownership among Malaysian Parents

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**ABSTRACT** – Child restraint systems (CRS) are designed to protect child occupants in the event of a collision, restrain them during sudden stops or maneuvers, and minimize the risk of injury in the event of a crash. This program aims to increase CRS usage among Malaysians and further educate parents on the importance of CRS. The government has introduced an incentive program for the B40 and M40 household groups, which is financial incentive assistance for up to MYR 150 for the purchase of CRS. Malaysian Institute of Road Safety Research (MIROS) has been appointed by the Ministry of Transport (MOT) of Malaysia as the implementing agency. Road Tour Program is one of MIROS' initiatives to increase the CRS ownership among Malaysian road users through various activities done such as booth promotion and intervention programs, to promote the program. This program received a favorable response from Malaysians, with a total CRS purchase of 63,395 CRS units throughout the incentive program.

**KEYWORDS:** Child Restraint System (CRS), Road Tour Program, child safety, incentive program

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## 1. INTRODUCTION

A Child Restraint System (CRS) incentive program is a government initiative designed to promote and facilitate the use of appropriate CRS in vehicles (MOF, 2023; Paiman et al., 2023). The primary goal of such programs is to enhance the safety of child passengers during travel by providing financial assistance or incentives to parents. This program typically aims to address the barriers that may prevent some families from obtaining and using proper CRS (Shaari et al., 2022). Based on a previous study by Jarahi et. al. (2011), only 12 percent of responders could be categorized as being willing to pay for CRS, and family income level was the main predictor of being willing to pay.

The importance of CRS in vehicles cannot be overstated, as they play a crucial role in protecting infants and young children in the event of a collision or sudden stop. Properly installed and correctly used CRS significantly reduces the risk of injury or death in the event of a crash.

Malaysia implemented the mandatory use of CRS under the Road Transport Act 1987 (Malaysian Government, 2019; Paiman et al., 2019). The regulations typically specify the types of child restraint systems that are approved for use, based on the child's age, weight, and height. It's common for such regulations to require the use of rear-facing infant seats for young babies and forward-facing CRS for older children.

The government has allocated a total of MYR 10 million in the 2023 Budget for the CRS incentive 2023. Through this program, a maximum incentive of up to MYR 150 for the purchase of CRS will be given to beneficiaries among B40 and M40 households income categories. To increase the amount of CRS purchases and ownership, a program with the concept of touring the entire state in Malaysia was held

from July to September 2023. According to the Department of Statistics Malaysia, B40, M40, and T20 are household groups that exist in the household income distribution structure in Malaysia (DOSM, 2020). B40 households are households with an income below MYR 4,360. M40 households are households with an income between MYR 4,360 – 9,619. T20 household groups are households with an income above MYR 9,619 (figures will be updated from time to time).

## 2. METHODOLOGY

Various methods and approaches have been implemented in achieving the objectives of this program. Notification to the public regarding this incentive continues through collaboration with selected health clinics, hospitals, baby store and kindergarten throughout Malaysia.

**TABLE 1:** Summary list of locations involved in road tour program

No.	Activity	Total Number
1.	Distribution of flyers at selected health clinics	98 government clinics
2.	Distribution of flyers at selected Hospitals	6 hospitals
3.	Promotion and registration booth at a selected retailer's shop	7 baby stores
4.	CRS intervention program (kindergarten)	7 kindergartens

Distribution of brochures and information related to incentives given to the parents who visit the health clinic. A total number of 98 government clinics were visited in Selangor, Wilayah Persekutuan Kuala Lumpur, Wilayah Persekutuan Putrajaya, Perak, Kedah, Perlis, Kelantan, Terengganu, Sabah, and Sarawak.



**FIGURE 1:** CRS incentive promotion activities at health clinics

Several hospitals in the Klang Valley and Terengganu areas were visited to further promote this incentive to the focus group which is parents. Maternity wards were visited and information about the incentive has been communicated to mothers in the ward. Exhibition booths have also been set up in selected hospitals to facilitate visitors and hospital staff registering and to provide relevant information to the public.

Another approach that has been done was the promotion and registration of an incentive program at selected baby stores around Malaysia. A total of seven locations were selected, involving baby stores in Seremban, Negeri Sembilan; Setia Alam, Selangor; Sri Rampai, Kuala Lumpur; Sungai Buloh, Selangor; Kuching, Sarawak; Melaka, and Johor Bharu, Johor.

In addition, a car seat check event was also held at Kuching, Sarawak, during the incentive promotion. It is very important to select, install, and use CRS correctly, as it is the only way to optimize the safety features of CRS, keeping the child safe in the vehicle. A car seat check event is a one-on-one education by the Child Occupant Safety Instructor (COSI) and typically takes 20-30 minutes, depending on the CRS types and vehicle (Paiman et al., 2021). COSI will explain and demonstrate the correct and safest way of CRS installation.



**FIGURE 2:** CRS incentive promotion activities at selected hospitals



**FIGURE 3:** CRS incentive promotion activities at baby store (booth promotion and car seat check)

Another approach to promotion involved kindergartens in the Klang Valley area. Three intervention programs were conducted at selected kindergartens to further promote the CRS incentive.

**TABLE 2:** List of kindergartens involved in the program

No.	Location
1.	<i>Tabika Perpaduan Kelas 1 Jalan Timur, Kajang, Selangor</i> <i>Tabika Perpaduan Kelas 2 Jalan Timur, Kajang, Selangor</i> <i>Tabika Perpaduan Sungai Kantan, Kajang, Selangor</i>
2.	Pusat Pendidikan Awal Kanak-kanak (Integrasi) GENIUS, Putrajaya
3.	<i>Tabika Perpaduan Seksyen 5, Bangi, Selangor</i> <i>Tabika Perpaduan Taman Kajang Utama, Kajang, Selangor</i> <i>Tabika Perpaduan Jalan Reko, Kajang, Selangor</i>

There are a few activities involved in the intervention program, such as observation of CRS usage where it has been conducted at the kindergarten premises, talks, quizzes, CRS installation demonstrations, child safety pledge, questionnaire, and coloring contest for children. The questions asked in the questionnaire are related to law enforcement, types of CRS, position of CRS in the vehicle, age, weight and height limit, and parents' behavior towards CRS.



**FIGURE 4:** CRS intervention program

### 3. RESULTS AND DISCUSSION

#### 3.1 Parents' Acceptance of the CRS Incentive Program

The incentive program was started in July 2023. Parents' acceptance of this initiative is overwhelming. The incentive program was carried out for two months, and fortunately, 66,960 CRS were sold under this program (incentive value of MYR 10,012,026.56). Table 3 shows the achievements summary.

**TABLE 3:** CRS incentive program achievement summary

No.	Element	Counts
1	Number of claims	MYR 10,012,026.56 (100.12%)
2	Number of recipients of subsidies	66,959 (100.44%)

#### 3.2 Pattern of Purchases for CRS Incentive Program

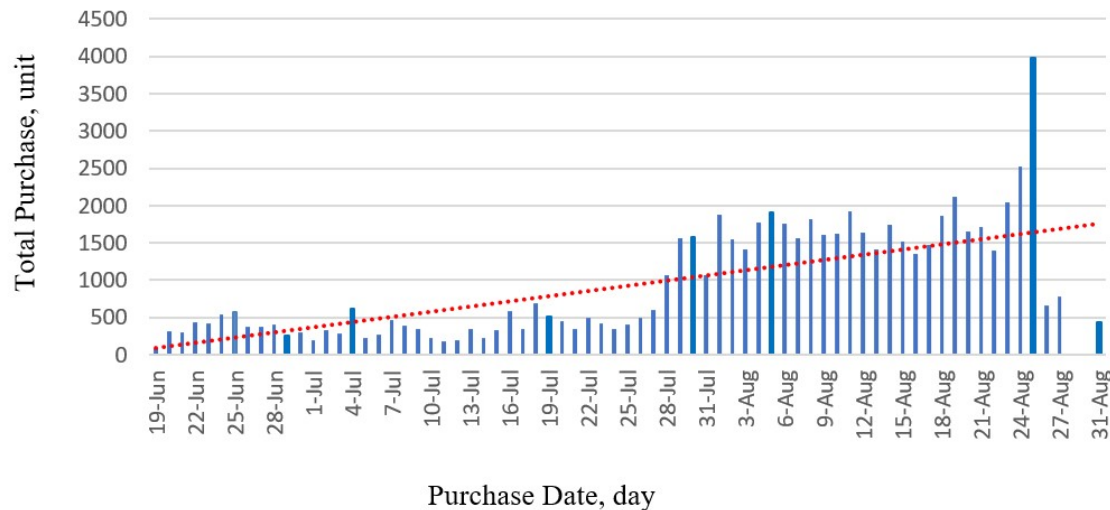
Based on the data obtained throughout the incentive program, a total of 66,959 eligible individuals have successfully purchased CRS. Further analysis has been conducted to examine the pattern of CRS purchases and the influencing factors.

Figure 5 below depicts the graph illustrating the pattern of CRS purchases throughout the implementation of the incentive program. In general, the pattern of CRS purchases throughout the incentive program shows an upward trend starting from June 19, 2023, until August 31, 2023. The increase in purchases is observed at the end of each month, which is around the 25th to 30th day of the month, and towards the end of the CRS incentive program. This purchasing pattern demonstrates consistency in line with the payday dates, generally in the government and private sectors.

Furthermore, a significant increase in purchases occurred from the end of July until the completion of the program. This increase can be attributed to the implementation of the road tour program throughout Malaysia, which was commenced on July 3, 2023, to assist in the dissemination of information regarding the incentive program. In conclusion, the implementation of the road tour program also had a significant impact on the purchasing pattern of CRS.



According to Miller et al. (1993), CRS prevented 185 deaths and 72,000 injuries in the U.S and saved \$3.5 billion, including \$220 million in medical care costs. The systematic review process identified strong evidence of effectiveness for child safety seat laws and distribution, together with education programs. Furthermore, community-wide information and enhanced enforcement campaigns and incentives, plus education programs, had sufficient evidence of effectiveness. Insufficient evidence was identified for education-only programs aimed at parents, young children, healthcare professionals, or law enforcement personnel.



**FIGURE 5:** The purchasing pattern of CRS throughout the incentive program

#### 4. CONCLUSION

The duration of the CRS incentive program in 2023 was held for four months, specifically from June 19 to September 30, 2023. However, the overwhelming response from Malaysian parents has shortened the period to three months only. This proves the effectiveness of the strategies that have been implemented throughout the program and shows the good acceptance of the program by Malaysians. Based on the information, it can be concluded that the CRS incentive program has successfully achieved its objective, which is to encourage Malaysians to buy and use CRS to ensure the safety of children while in the vehicle, which is also the nation's future asset.

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