

CHILD RESTRAINT SYSTEM (CRS)



TRƯỜNG ĐẠI HỌC
Y TẾ CÔNG CỘNG
HANOI UNIVERSITY OF PUBLIC HEALTH



GLOBAL
ROAD SAFETY
PARTNERSHIP



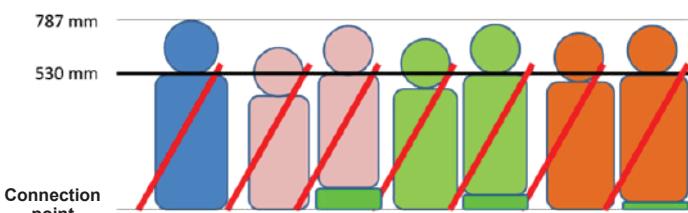
Child Restraint System (CRS) are devices including: Cradles, seats, booster are installed on the car to ensure the safety of children while travelling in car.

Mortality ratio from road traffic accidents: 0-4 years old: 1.8/100,000 children 5-14 years old: 2.4/100,000 children

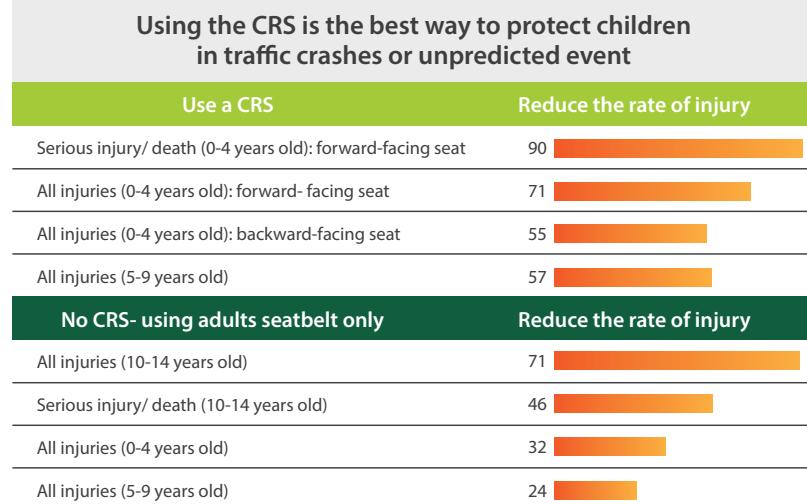
Protective effect



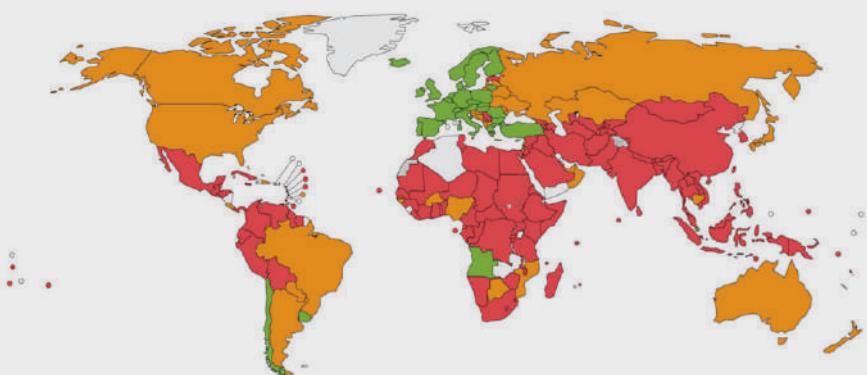
**Reduce 70% - 90%
in deaths and
serious injuries**



Children need to use specified Child Restraint System (CRS),
not use adults seatbelts



**96 countries
already have laws
on CRS mandatory.**



CENTER FOR INJURY POLICY AND PREVENTION RESEARCH - HANOI UNIVERSITY OF PUBLIC HEALTH

1A Duc Thang Street, Duc Thang, Bac Tu Liem, Ha Noi

#childrestraintsystems vietnam

(84-24) 62662325

/ThietbiantoantrenotochotreemVietNam

/cippr.huph.edu.vn

/safevietnam.org.vn

CHILD RESTRAINT SYSTEM (CRS)

Classification



CHILD RESTRAINT SYSTEM FOR INFANTS AND CHILDREN UNDER 1 YEAR (GROUP 0, 0+)



CHILD RESTRAINT SYSTEM FOR CHILDREN AGED 1-4 YEARS (GROUP 1)



CHILD RESTRAINT SYSTEM FOR CHILDREN AGED 4-6 YEARS (GROUP 2)



CHILD RESTRAINT SYSTEM FOR CHILDREN AGED 6-11 YEARS (GROUP 3)

The diagram illustrates the growth stages of a child from birth to 36 kg, categorized into four groups:

- Group 0:** From birth to approximately 9 months (up to 9 kg).
- Group 0+:** From approximately 9 months to 13 kg.
- Group 1:** From 13 kg to 22 kg.
- Group 2:** From 22 kg to 36 kg.
- Group 3:** For children over 36 kg.

Key milestones marked on the timeline include: Weight (kg) 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 22, 25, 36; Age 9 months, 3 years; and Safety Systems: Attached latch system and Standard ISOFIX system.

SAFETY LATCH "ISOFIX"

ISOFIX is the international standard for attachment points for child safety seats in passenger cars.

ISOFIX-standard designed to ensure that child safety equipment is installed easily and safely through 3 points:

- Above the top of the chair and 2 sides of the bottom of the chair.
ISOFIX protect the safety of both safety equipment and young children.

Some other names of ISOEIX include:

- Latch in the United States,
- Canfix in Canada,
- UCSSS (Universal Child Safety Seat System).



Steps to install CRS to the ISOFIX latch on the car



3 CRITERIA FOR A GOOD REGULATION OF CRS RECOMMENDED BY THE WORLD HEALTH ORGANIZATION

- 1 The law requires children to use CRS at least until the age of 12 or height of 150cm.
- 2 The law should set CRS quality standards for children.
- 3 The law restricts children by age or height of sitting in the front seat.

CURRENT STATUS OF CRS UTILIZATION IN VIETNAM

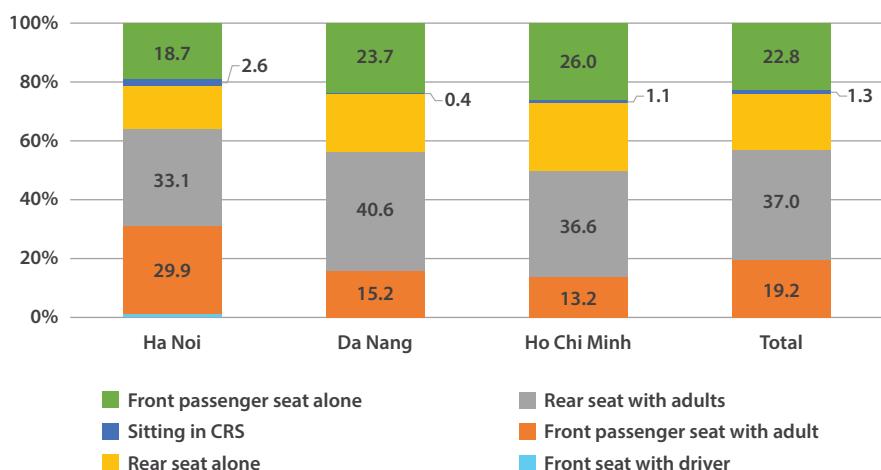


Where are the children sitting in the car currently?

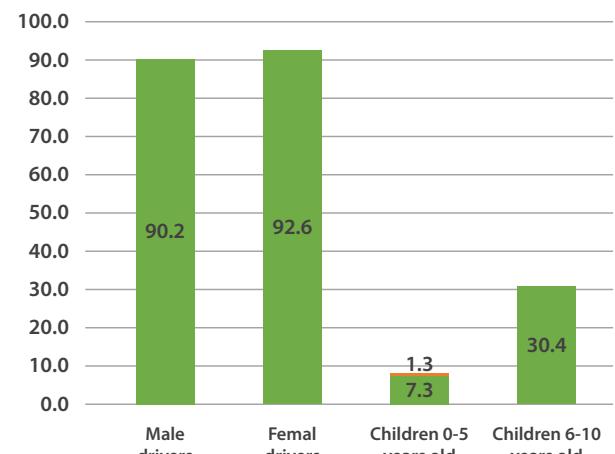
The study observed a total of
1,102 private cars with children
in three big cities: Hanoi, Da Nang and Ho Chi Minh City.

1.3% OF CHILDREN USE CRS

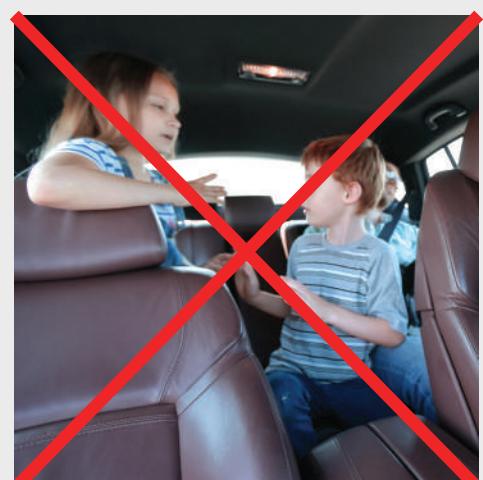
Child's seat position in the car



Seatbelt ratio



Although adults have complied with seatbelt regulations, very few children are wearing seatbelts, and they are using adult seatbelts.



CHILD RESTRAINT SYSTEM MARKET

Availability and accessibility of Child restraint system

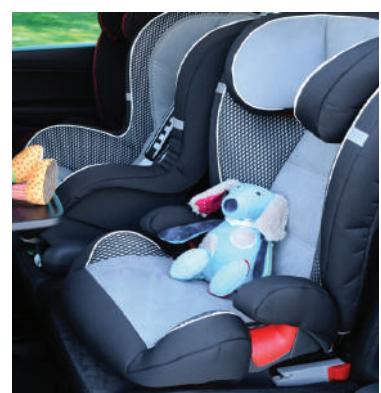
- CRS products in Vietnam are now mainly imported from Europe, the US, Japan and Korea, **there is only 1 Vietnamese manufacturer**.
- Online marketing websites, baby's shops and shopping mall are common place for purchasing CRS products.



CRS classification and pricing in Vietnam

Brand	Source	Number of types	Average weight	Average price (thousand VND)	Lowest	Highest
Brand 1	Japan	1	9 - 36 kg	5.500	-	-
Brand 2	Italia	1	0 - 18 kg	3.893	-	-
Brand 3	Italia	8	0 - 36 kg	9.131	5.700	13.990
Brand 4	Japan	6	0 - 36 kg	7.692+3.403	4.690	13.990
Brand 5	Korea	10	0 - 41.5 kg	4.864+1.838	2.690	7.490
Brand 6	Germany	3	0 - 41.5 kg	1.881+288	1.642	2.200
Brand 7	America	4	0 - 54.5 kg	7.898+1.762	5.290	9.100
Brand 8	England	7	0 - 36 kg	4.356+2.368	2.100	8.800
Brand 9	Vietnam	1	9 - 36 kg	1.950	-	-
Brand 10	America	6	0 - 36 kg	2.268+778	1.385	3.285
Total		47	0 - 54.5 kg	5.542+3.240	1.385	13.990

- The brands include many products for a wide range of children from 0-36 kg.
- The price of brands is from 1,385,000 VND to 13,990,000 VND and the average price of all brands is 5,542,000 VND.
- In the market, products from the US, Italy, Japan, UK, Korea, and Germany are all CBU imports.



Online sources on large e-commerce platforms such as Shopee, Lazada, Sendo, Tiki: products that are motorcycles are seatbelts / safety seats for children, or child restraint. These products do not meet technical standards or ISOFIX latch, which are inappropriate safety equipment.

It is necessary to control the quality of CRS products, raise awareness and identify products that meet quality standards.

VIETNAMESE PARENTS' PERCEPTION ON CRS

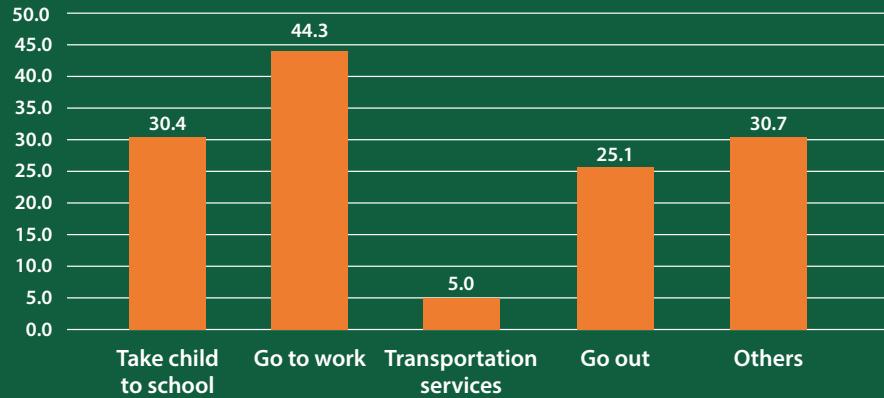


Seatbelts use among children

The survey conducted in 3 big cities to explore parents and caregivers's perception on CRS

- The rate of always use seatbelt in car is **72,5%**
- The rate of not using seatbelt is only **3,7%**

**44,3% using car
for work,
30,4% using car to
take children to school.**



Knowledge of Child Restraint System

	Ha Noi	Da Nang	Ho Chi Minh	Total
Heard about Child Restraint System				
Yes	219 (53.6)	89 (53.6)	71 (39.2)	379 (50.1)
The safest position for children in the car				
Front seat	21 (5,1)	12 (7,2)	6 (3,3)	39 (5,2)
Rear seat	155 (37,9)	49 (29,5)	68 (37,6)	272 (36)
Sitting in the rear seat of an adult	105 (25,7)	65 (39,2)	42 (23,2)	212 (28)
Sitting in the Child Restraint System	116 (28,4)	37 (22,3)	57 (31,5)	210 (27,8)
Don't know	12 (2,9)	3 (1,8)	8 (4,4)	23 (3)

Perspectives on CRS for children in cars of research subjects:

	Disagree	Neutral	Agree
CRS prevent serious injury or death in case of crashes	2.7	1.9	95.6
Children who use inappropriate CRS are more likely to be seriously injured in the event of an accident	9.5	5.7	84.8
Safety equipment is too expensive	12.7	39.7	47.6
There is no need to use CRS for children because sitting in a car is safe	75	12.6	12.4
It's easy for me to find information about CRS	10.3	22.0	67.7
I can purchase CRS for my child easily	9.7	27.9	62.4
I support the use of CRS for children	2.2	7.9	90

Parents have positive perception on CRS

90% of parents agree to support the use of Child Restraint System

However, 50% of respondents said that the current price of CRS is expensive also creates barriers to the use of CRS.

In-depth interviews with drivers/ parents with children aged 0-10 who are using CRS show their understand of CRS as a device that can improve child safety.

I think CRS is essential for children. When the children grown up, they can stand independently and often refuse to stay in mother's lap, in case of sudden braking, they can be felt forward. In the case of 1 adult driving and 1 child it is crucial to have CRS.

When I travel or studying oversea, I saw that in developed country CRS is mandatory so I found it is necessary to ensuring the safety of children.

For users who have had a mandatory CRS experience for children, during their time living abroad, so when having children they decide to use this product. Some parents who have lived in countries with laws on the use of CRS are in favor of CRS regulation.

The barrier to using CRS can be mentioned as parents are afraid of incooperating to the children. In addition, to install another seat to the car is bulky and inconvinient.

When installing seats for children will have to lock the door scene, making it inconvenient for others passengers in the car.