

# Safety Strategy and Technology for Child Protection

Honda R&D Asia Pacific Co., Ltd.

---



**HONDA**  
The Power of Dreams

## Background : Children Left in Car

Dangers of leaving your child alone in the car : **Heat stroke** (hyperthermia) is the biggest danger. **Heat stroke can damage the brain and other body organs.** It can even lead to death. A child's body heats up 3-5 times faster than an adult's body.

It doesn't take long for a **child's body temperature to become too high very fast** when left in a car.

### US- (1Mar'23)

A 2-year-old boy died in Atmore, Alabama, after being left unattended in his father's vehicle for eight hours. This is the first hot car death of the year that has been reported in the United States.



"The father, 51-year-old allegedly forgot to drop the child off at daycare and left the toddler in the backseat of his car all day"

Source : news.yahoo.com

### Thailand- (30Aug'22)

A 7-year-old schoolgirl was found dead in a school van (30Aug '22) at a school in the eastern province of Chon Buri, having been locked in the vehicle from morning until about 4pm.



"The school bus driver thought that all the students had gotten off the bus. He didn't saw that students were asleep in the car"

Source : thaipbsworld.com

### Indonesia- (25Jun'22)

A 2-year-old girl was found locked inside car by her mother after went for shopping, 21 June 2022. She has been locked in the car for around an hour. The girl able to be rescued by army.

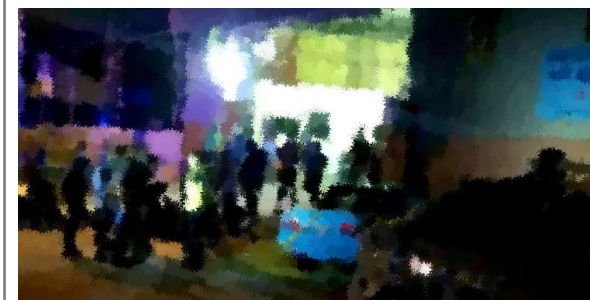


"When the owner got out of the car to shop at the Timika Market 10.00. Her toddler daughter played with her car key, so it was automatically locked, almost an hour. She contacted her husband for help"

Source : Kompas.com

### Malaysia- (13Aug'20)

SUNGAI PETANI: A 4-year-old girl died of heatstroke after her father accidentally left her in his parked car at his workplace for almost 10 hours.



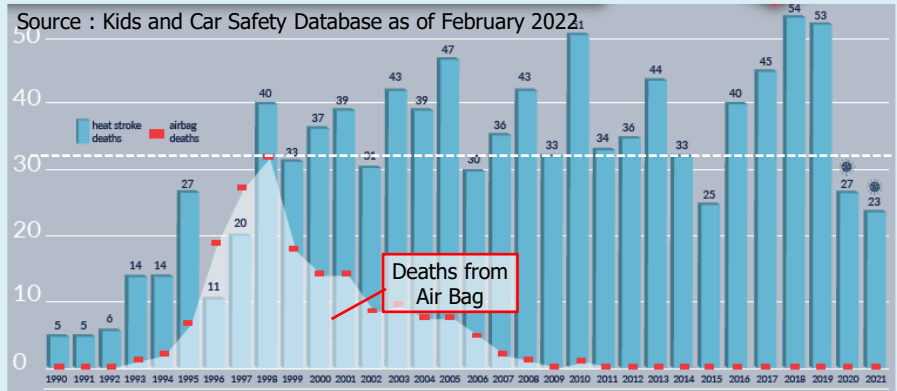
"The father forgot that the victim was in the car as she was sound asleep in the backseat. He was supposed to drive the victim to her grandmother's house in Kampung Bukit, Sungai Pasir, before heading to work"

Source : nst.com.my

■ Child deaths from heat stroke after left in a car is occurring every year.  
Some of the children were left there by mistake, some were left on purpose.

# Children Left in Car / Deaths cases

## US : 32.8 deaths/Year in hot vehicles (statistical data)



From 1990-2021, 186 children were killed by over-powered air bags in the front passenger seat. During that same time-frame **1,018 children died in hot vehicles**.

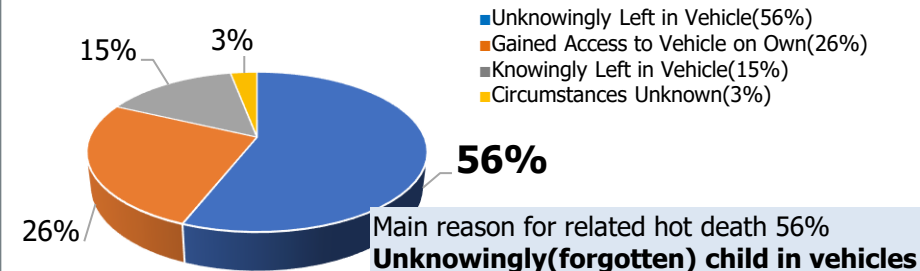
## EU: 2.1 deaths/year (survey data)

### 2006-2018

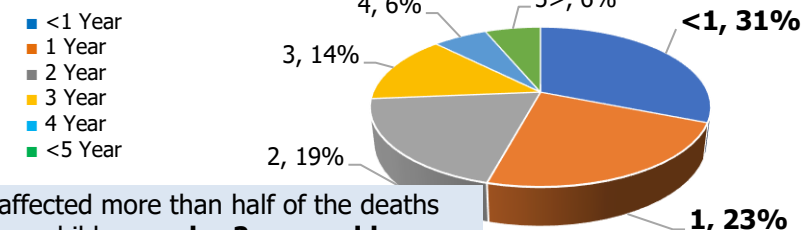
Country	Total	Lethal
Austria	3	1
Belgium	6	5
France	22	7
Germany	20	0
Ireland	1	1
Italy	17	4
Poland	1	1
Slovakia	1	1
Spain	3	2
Switzerland	2	2
Netherlands	15	2
UK	2	0
<b>Sum Europe</b>	<b>93</b>	<b>26</b>

Source: Mercedes

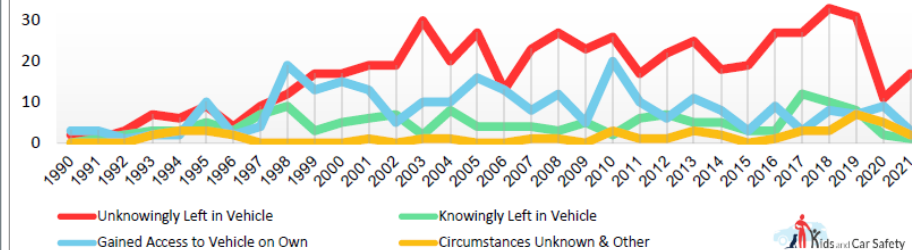
## US: Child Hot Car Deaths by situation



## US: Child Hot Car Deaths by Age



## US: All child Hot Car Death Circumstance by Year (1990-2021)



Cases involving children being unknowingly left in car has increased from mid of 1990 and **have been increasing every year**.

Source : Kids and Car Safety Database as of February 2022

## Number of left accident case in Global

## China: 4 cases in Apr 2019 (survey data)

近年中国において、児童を車内に忘れる事故が増えており、2019年4月だけで4件があった



主な事故原因は、  
 ・ 親がうっかりして児童を車内に忘れ  
 ・ 親が知らず知らずのうちに、児童を車内に残し  
 ・ 鍵を忘れ、車が自動ロックされ  
 ・ 親が監視義務を徹底せず、児童は遊び際車内に  
 ロックされ

Source: Chinese Domestic News

## Japan: 30 cases in Aug 2016 (survey data)

■子どもが車内に残された状態の「キー閉じ込み」救援依頼に出动した件数  
 調査期間: 2016年8月1日～8月31日 (1ヶ月間)

支部名	実施件数	依頼者が女性	依頼者が男性	記載なし	合計
札幌	3	2	1	0	3
旭川	2	1	1	0	2
釧路	0	0	0	0	0
函館	0	0	0	0	0
仙台	1	1	0	0	1
青森	8	4	4	0	8
岩手	1	1	0	0	1
宮城	4	2	2	0	4
秋田	4	2	2	0	4
山形	2	1	1	0	2
福島	6	3	3	0	6
茨城	3	1	2	0	3
栃木	7	3	4	0	7
群馬	6	3	3	0	6
千葉	4	2	2	0	4
東京	6	3	3	0	6
神奈川	9	4	5	0	9
新潟	6	3	3	0	6
山梨	4	2	2	0	4
長野	7	3	4	0	7
富山	2	1	1	0	2
石川	6	3	3	0	6
福井	12	6	6	0	12
岐阜	12	6	6	0	12
愛知	2	1	1	0	2
三重	4	2	2	0	4
滋賀	1	1	0	0	1
京都	6	3	3	0	6
大阪	28	14	14	0	28
兵庫	1	1	0	0	1
奈良	2	1	1	0	2
和歌山	2	1	1	0	2
鳥取	2	1	1	0	2
徳島	2	1	1	0	2
香川	0	0	0	0	0
愛媛	1	1	0	0	1
高知	2	1	1	0	2
佐賀	3	1	2	0	3
長崎	6	3	3	0	6
熊本	3	1	2	0	3
大分	7	3	4	0	7
宮崎	4	2	2	0	4
鹿児島	6	3	3	0	6
沖縄	3	1	2	0	3
<b>合計</b>	<b>297</b>	<b>138</b>	<b>159</b>	<b>0</b>	<b>297</b>

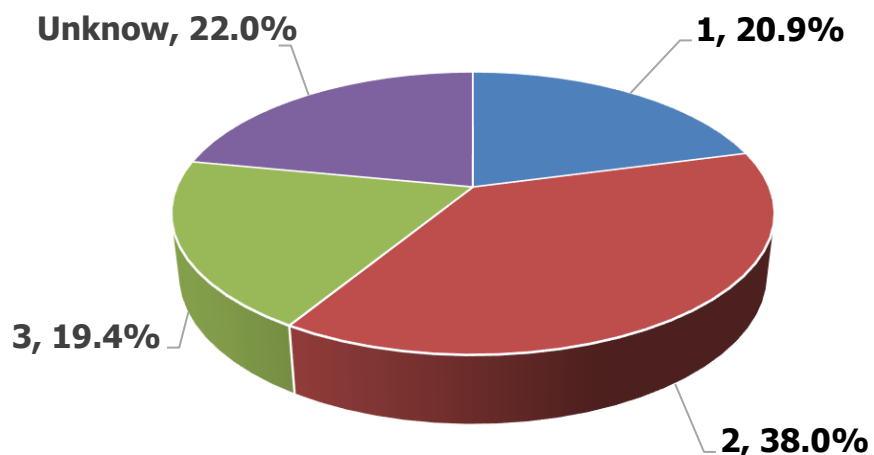
Source: JAF

■ Ref. US data that the child left in car by forgotten was increasing every year.

# Children Left in Car / Deaths cases

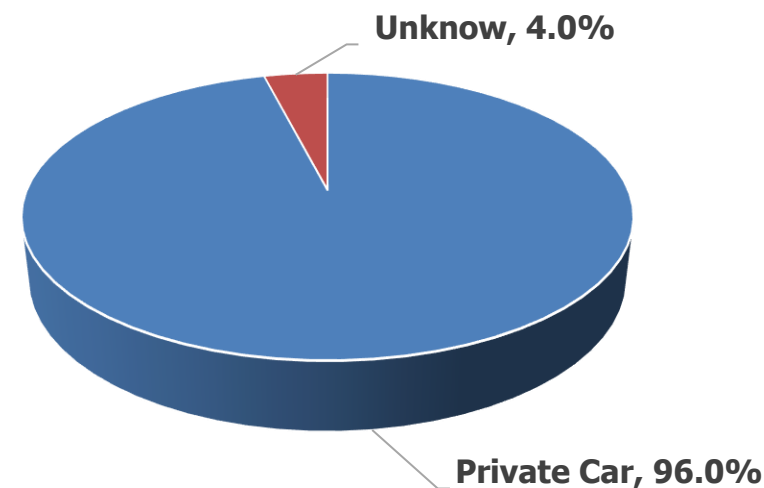
**Thailand : 129 cases and 6 deaths in 2014-2021**

**TH: Left in Car by Age (year)**



Mainly affected more than half of Children left in car (59.0%) are children 1-2 years old.

**TH: Left in Car by type of Car**



The most 96.0% occurring in private cars.

Source : thaipbs.or.th/news

■ Thailand's child left in car data is 7 cases per year and all most in private car.



# The prevention for Children Left in Car

## ■Thailand

Campaign to prevent forgetting students in the school bus.



Remind driver of 3 things to remember to prevent forgetting children in the car as follows: "1.Count, 2.Check, 3.Don't be careless" i.e., **counting the number of children before getting in and after getting out of the car every time, checking before locking the car doors.** And teach children to know the risks and dangers by **teaching the children to press the car horn loudly.**

Source : [thaipbs.or.th/news](http://thaipbs.or.th/news)

## ■Japan

Campaign STOP! Left child in car at pachinko parlor parking lot.



A staff member puts up a warning sign on a pachinko machine in the city of Chiba.

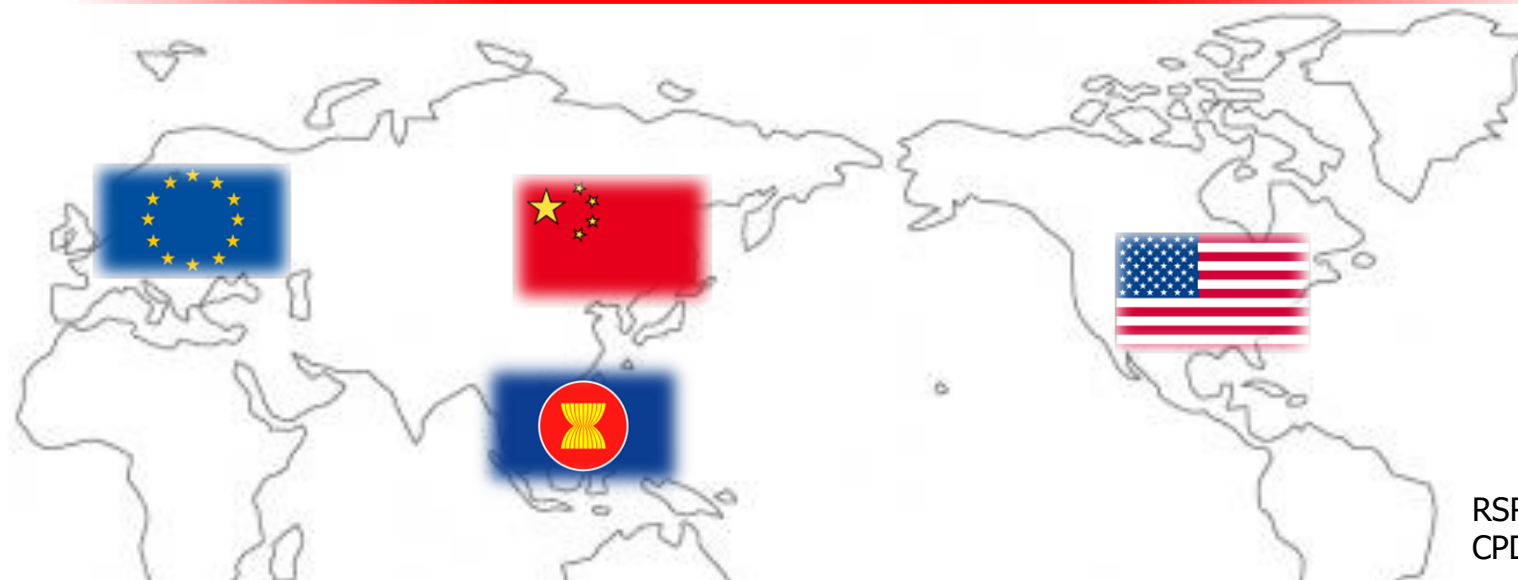


With the risk of heatstroke rising, the prefectural police issued a written request to industry groups and other organizations in the prefecture **to warn customers to be careful to prevent children from being left in cars at pachinko car parking..**





Source : [mainichi.jp](http://mainichi.jp)

■ Prevention through the campaign to warn driver fully careful and not left the child in the Car.

# Regulations/NCAP trends for prevent Children Left in Car



RSR : Rear Seat Reminder  
CPD : Child Presence Detection

	 <b>EU</b>	 <b>ASEAN</b>	 <b>China</b>	 <b>US</b>
Regulation	—	—	—	'21~ Industrial voluntary ⇒Apply with RSR function <b>'24~ Regulation</b> ⇒under consideration
NCAP	<b>Add CPD</b> '24 protocol(under consideration) '26 protocol revision	<b>Add CPD</b> '21 protocol phase-in '26 protocol revision	<b>Add CPD</b> '25 protocol phase-in '28 protocol revision	—

■ Global situation of prevention Left the child in Car

# **Honda Technology for Prevention of Children Left in car**

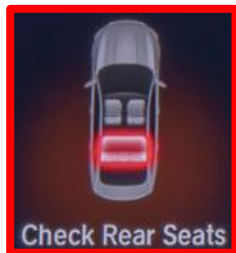
# Honda's Technology : Rear Seat Reminder (RSR)

## Reminder for prevention

Before Left

Unknowingly  
Left

## Rear Seat Reminder(RSR)



Honda's Rear Seat Reminder helps remind the driver of rear seat occupants and cargo before they exit their vehicle.

### <System>

If there are rear door open-close history, driver was reminded by display on the meter and wringing sound for confirm at rear seat when turnoff the Engine.



## Rear Seat Remainder system

**HONDA**  
The Power of Dreams  
Safety for Everyone

This feature alerts you to the possible presence of passengers or items in the rear seats before you exit the vehicle. It activates when the power mode is set to VEHICLE OFF if the rear doors were opened shortly before or after the power mode was set to ON.

◆System is activated if rear doors are opened or closed while power is on or within 10 minutes before the power is turned on.



◆A reminder appears on the driver information interface and an alert will sound when the power mode is set to VEHICLE OFF.

◆When the power mode is set to VEHICLE OFF, the reminder comes on briefly, then the function is deactivated.

When there is a Rear Door opening history, meter will notify reminder at the time of parking.

■ Honda apply the RSR function for remind the driver the re-confirm not left any before get out off car.



# Honda model applied RSR function for CPD

ASEAN NCAP is aware of prevent children from being left in car by adding CPD assessment to 2021 protocols. Honda is applying the RSR feature to its models from 2021.



**Safety for Everyone**

