

# Heatstroke accident data in buses carrying children

74<sup>th</sup> GRSP  
2023.12.

Korea Automobile Testing and Research Institute

# Background

- GRSP Agenda item 21. Children left in cars
- Republic of Korea and Australia commented “Children left in cars” is an urgent issue in safety during 73<sup>rd</sup> GRSP session
- Additionally, Republic of Korea stressed that the regulation discussion on this issue should include not only sedans and SUVs but also buses carrying children in the scope

# Heatstroke accident data in buses carrying children (by countries)

- Republic of Korea\*
  - “Bus intended to carry children (so called, school bus)” is defined in KMVSS (national vehicle safety regulation in Korea)
  - 1 fatal case and 1 coma case (unknown afterward) in school buses

When (month, year)	Where	Age	Gender	Vehicle Type	Circumstance	Others
July, 2016	Gwangju	4 years	Male	School bus	Left by Kindergarten	Coma @ accident (unknown afterward)
July, 2018	Dongducheon, Gyeonggi-do	4 years	Female	School bus	Left by Nursery	

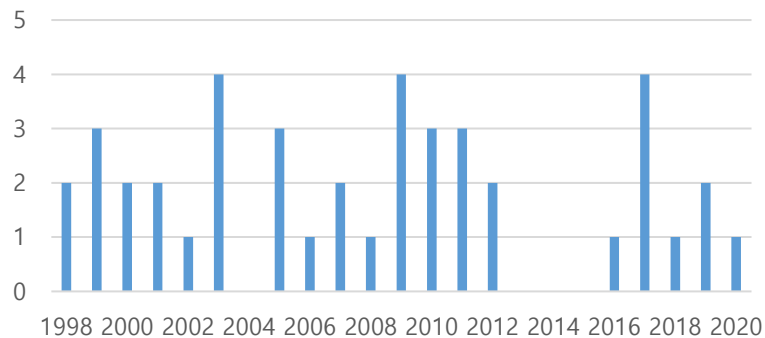
- Japan\*\*
  - 2 fatal cases in nursery school buses in July 2021 and September 2022

\* from public media investigation for Korean School Bus R&D project (R&D No. RS-2022-00143581)

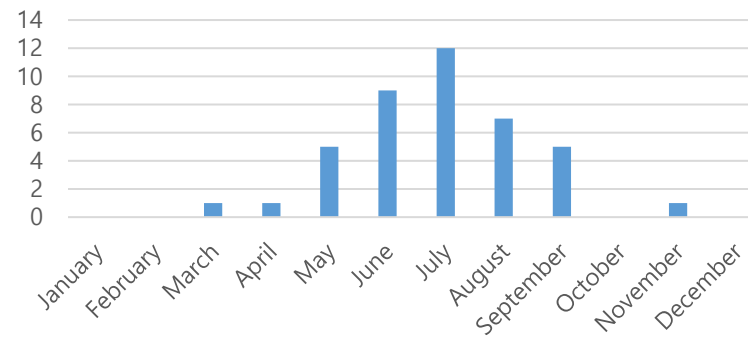
\*\* from WP.29-191-10

# Heatstroke accident data in buses carrying children (by countries)

- United States of America\*
  - 42 fatalities in daycare buses or vans from 1998 to 2020 (avg: about 2 fatalities per year)
  - Gender ratio: 27 male and 15 female children
  - Age (average): approximately 3 years old
  - Temperature (average): approximately 32 °C
  - Hours being left (average): approximately 5.5 hours\*\*



Heatstroke fatalities in buses carrying children by year (US)



Heatstroke fatalities in buses carrying children by month (US)

\* source: provided by Jan Null, Adjunct Professor of Meteorology, San Jose State University

\*\* except unknown cases

**고맙습니다.**  
**Thank you for your attention.**