

Fatalities and Injuries among Children in Motor Vehicle Crashes in Japan

18 June, 2008

JASIC

Japan Automobile Standards Internationalization Center



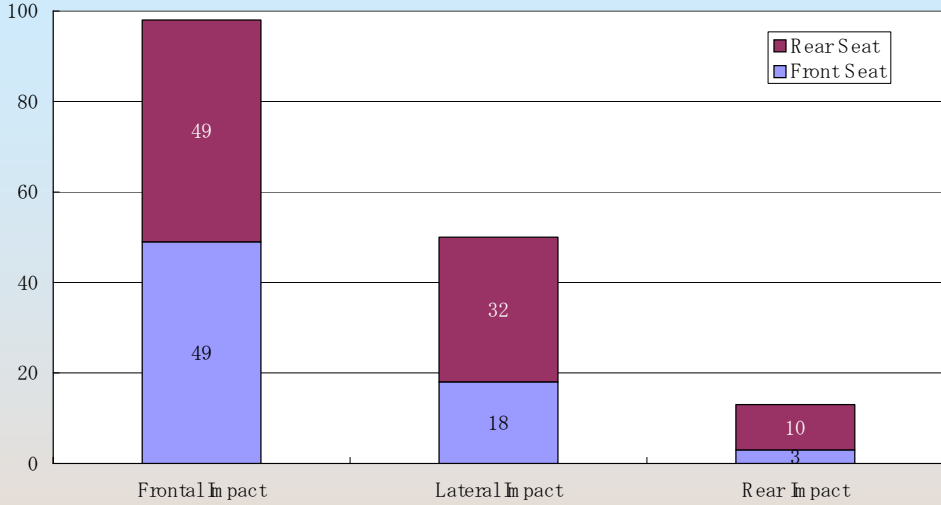
Introduction

- ❁ Japan has adopted ECE R.44 and is highly interested in GRSP CRS informal meetings.
- ❁ We would like to present an accident survey in Japan, one of the countries adopting R.44, for the consideration of more effective laws and regulations for reducing casualties.
- ❁ We hope that this survey report on the number of casualties and the rates of fatality and serious injury by impact type in crashes in Japan will serve as an evidence to identify necessary measures in regulatory revision.

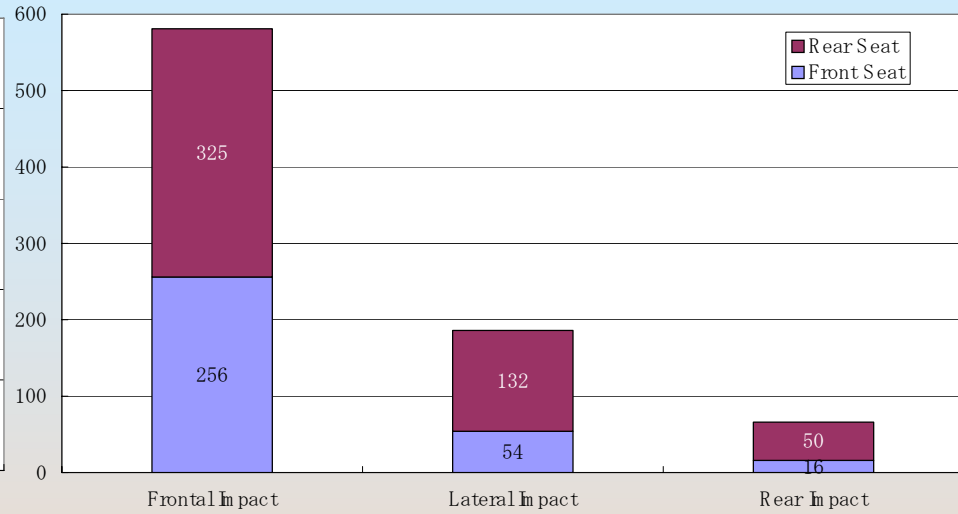
Motor Vehicle Fatalities and Serious Injuries among Children in Japan

- ❁ A survey on the number of casualties among children (aged less than 6) by impact type (year 2000-2004) shows that the number of deaths and serious injuries in lateral impact crashes was 236 (including 50 deaths), which is about 35% of that in frontal impact crashes, or 679 (including 98 deaths).
- ❁ However, the number of deaths and serious injuries account for 3.0% of all the casualties in frontal impact crashes, and 2.2% of those in lateral impact crashes, respectively, both of which are higher than 0.3% in rear impact crashes.

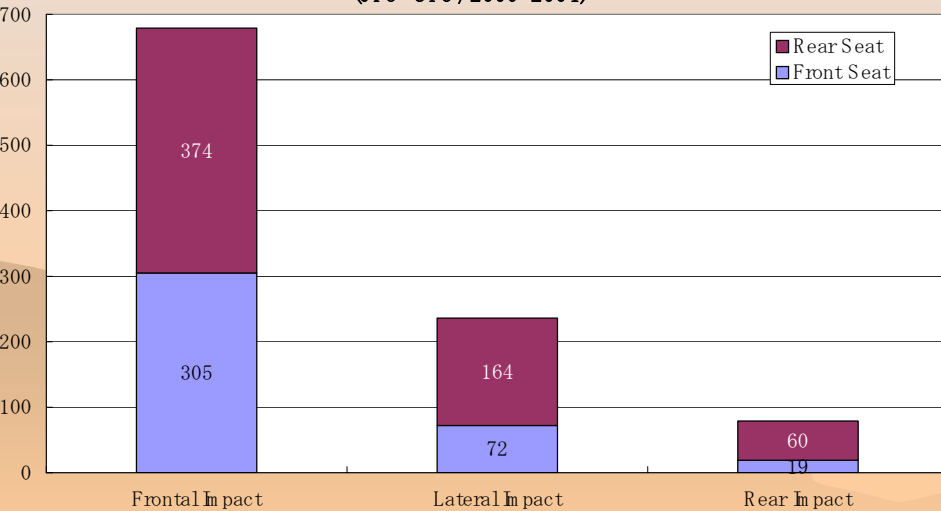
Number of Fatalities (YO-5YO/2000-2004)



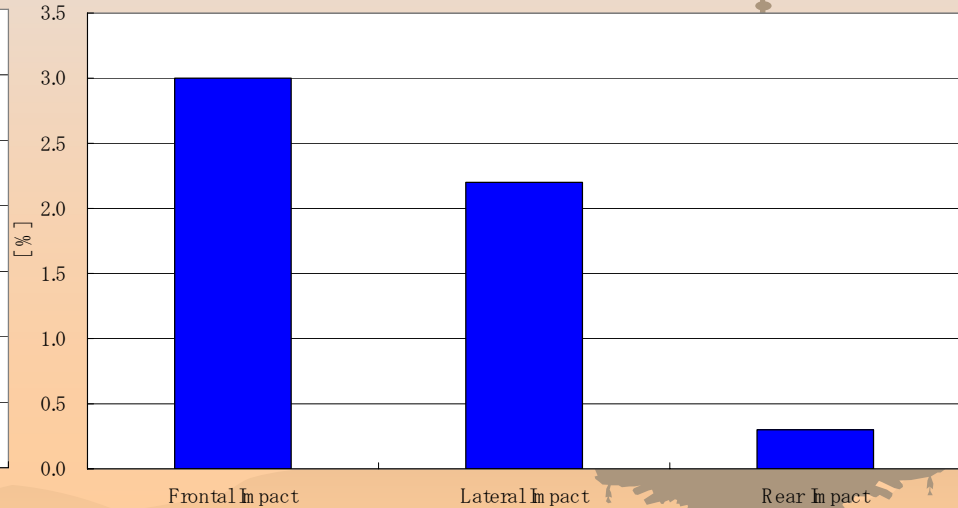
Number of Persons Serious Injured (YO-5YO/2000-2004)



Number of Fatalities and Persons Serious Injured (YO-5YO/2000-2004)



Fatality and Serious Injury Rate (YO-5YO/2000-2004)



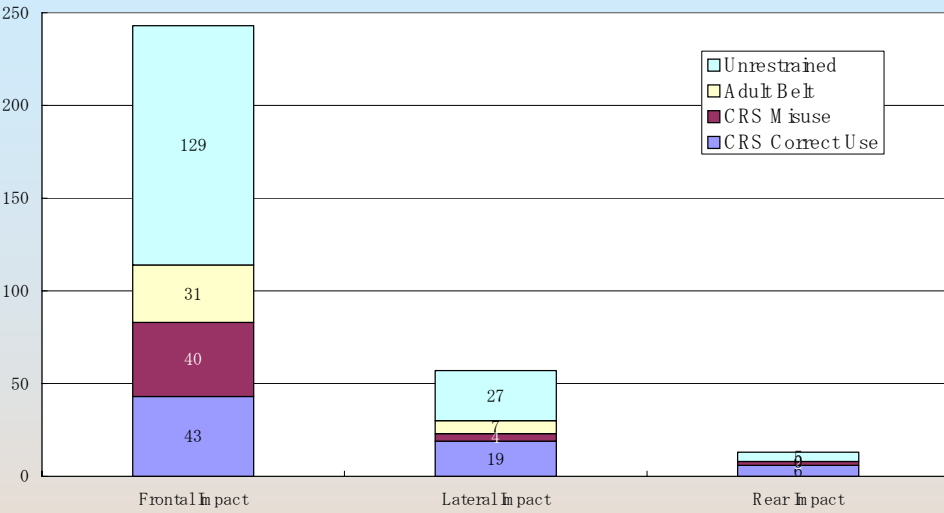
Fatalities and Serious Injuries among Children in Lateral Impact Crashes in Japan

- ❁ Although the number of deaths and serious injuries in lateral impact crashes was smaller compared with that in frontal impact crashes, considering the high rates of death and serious injury in the former, safety improvement in lateral impact crashes is a very important issue as with that in frontal impact crashes in Japan.

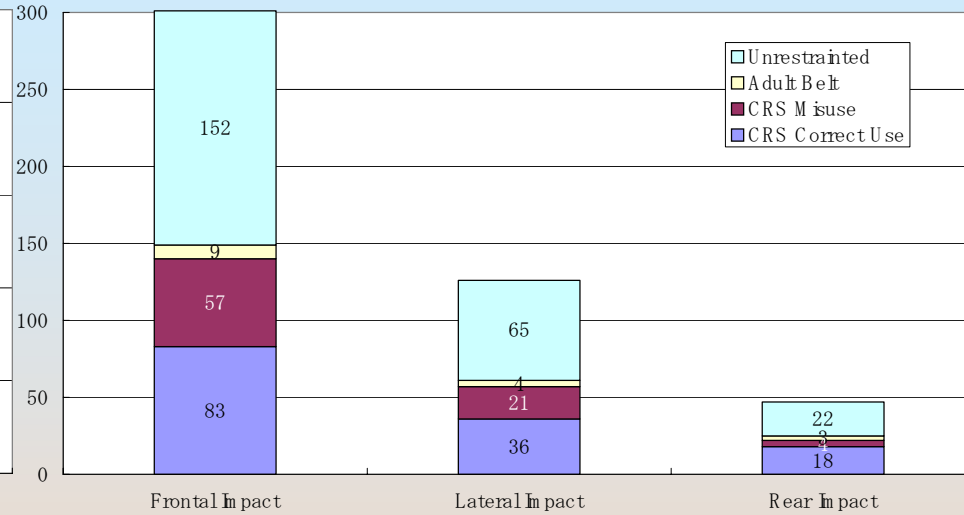
Use of CRSs in Crashes Involving Fatalities and Serious Injuries among Children in Japan

- ❁ Both in frontal and lateral impact crashes resulted in deaths and serious injuries, there were many cases where CRSs were misused or no restraint was used.

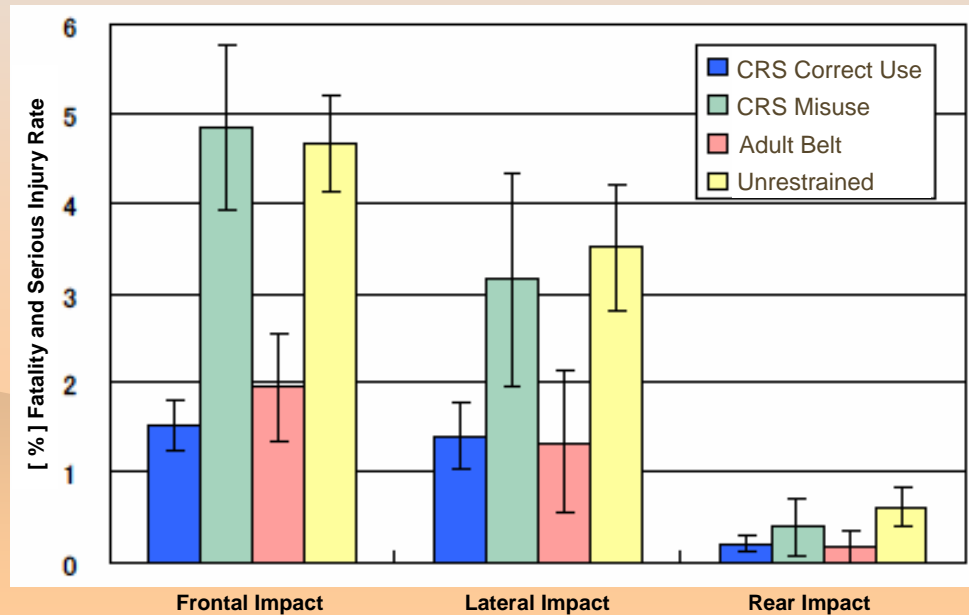
Number of Fatalities and Persons Serious Injured (0YO-5YO/2001-2004) by Restraint Type (Front Seat)



Number of Fatalities and Persons Serious Injured (0YO-5YO/2001-2004) by Restraint Type (Rear Seat)



Fatality and Serious Injury Rate (0YO-5YO/2001-2004) By Restraint Type



Use of CRSs in Crashes Involving Fatalities and Serious Injuries among Children in Japan

- ❁ Whether in frontal or lateral impact crashes, the rates of deaths and serious injuries when CRSs were misused or no restraint was used were more than double those when CRSs were properly used.
- ❁ This brings us to the conclusion that CRSs which can be properly and easily used by users should be made widely available to reduce the number of deaths and serious injuries among children in crashes.

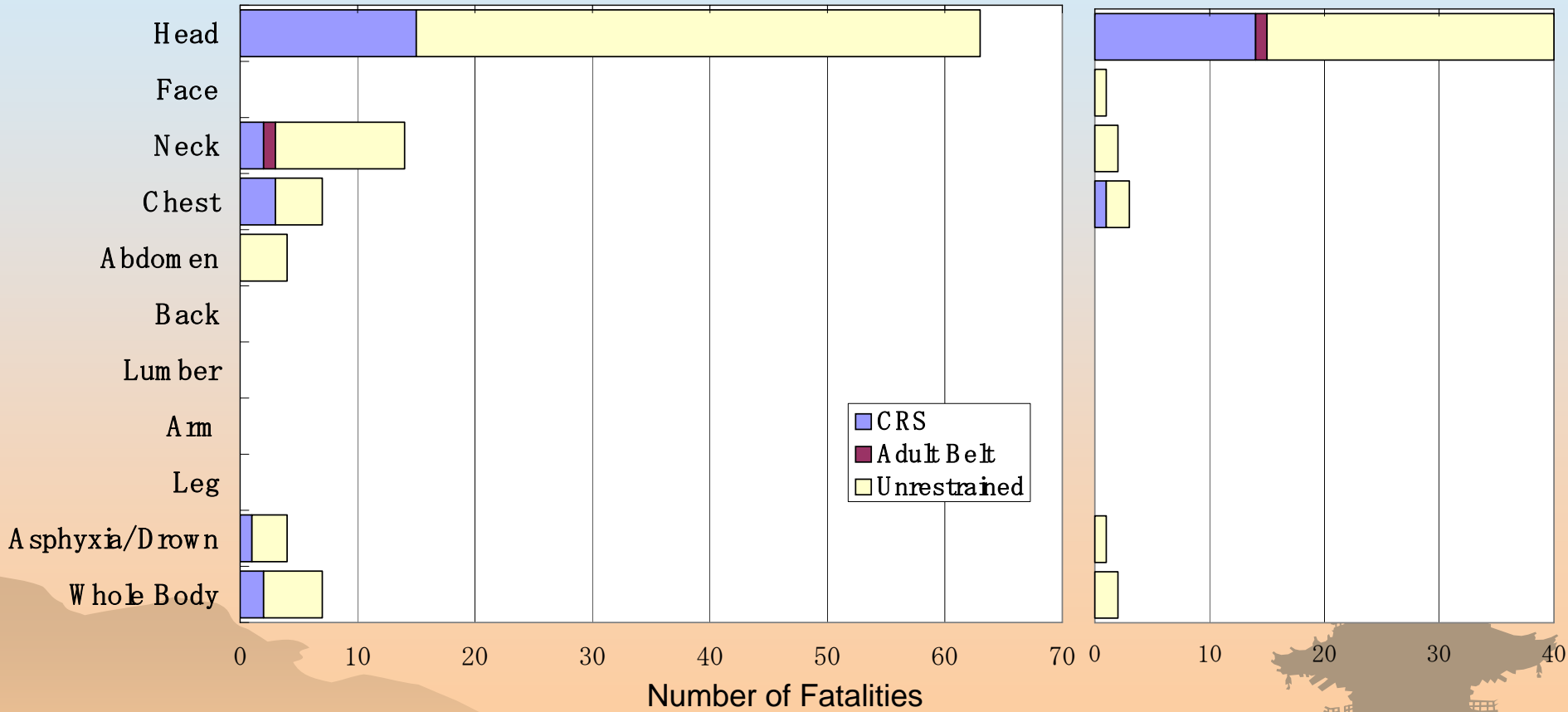
Areas of Main Injuries in Children Involved in Crashes Resulted in Fatalities and Serious Injuries

- ❁ Whether in frontal or lateral impact crashes, or whether CRSs were used or no restraint was used, head injuries were the main contributor to fatalities.

Main Injury Body Region by Impact Type and Restraint Type (Fatality / 0YO-5YO/ 2000-2004)

Frontal Impact

Lateral Impact



Conclusion

- ❁ Improvement of frontal and lateral impact protection performance is effective for raising child protection performance.
- ❁ Among others, head injuries were found to be the major contributor to fatalities. Therefore, enhancing the head protecting function is effective.
- ❁ The proper use of CRSs is important to protect children, but in actuality, there were many cases where restraints were misused or not used in crashes resulted in fatalities and serious injuries. Therefore, studying how to ensure the proper use of CRSs is also important.