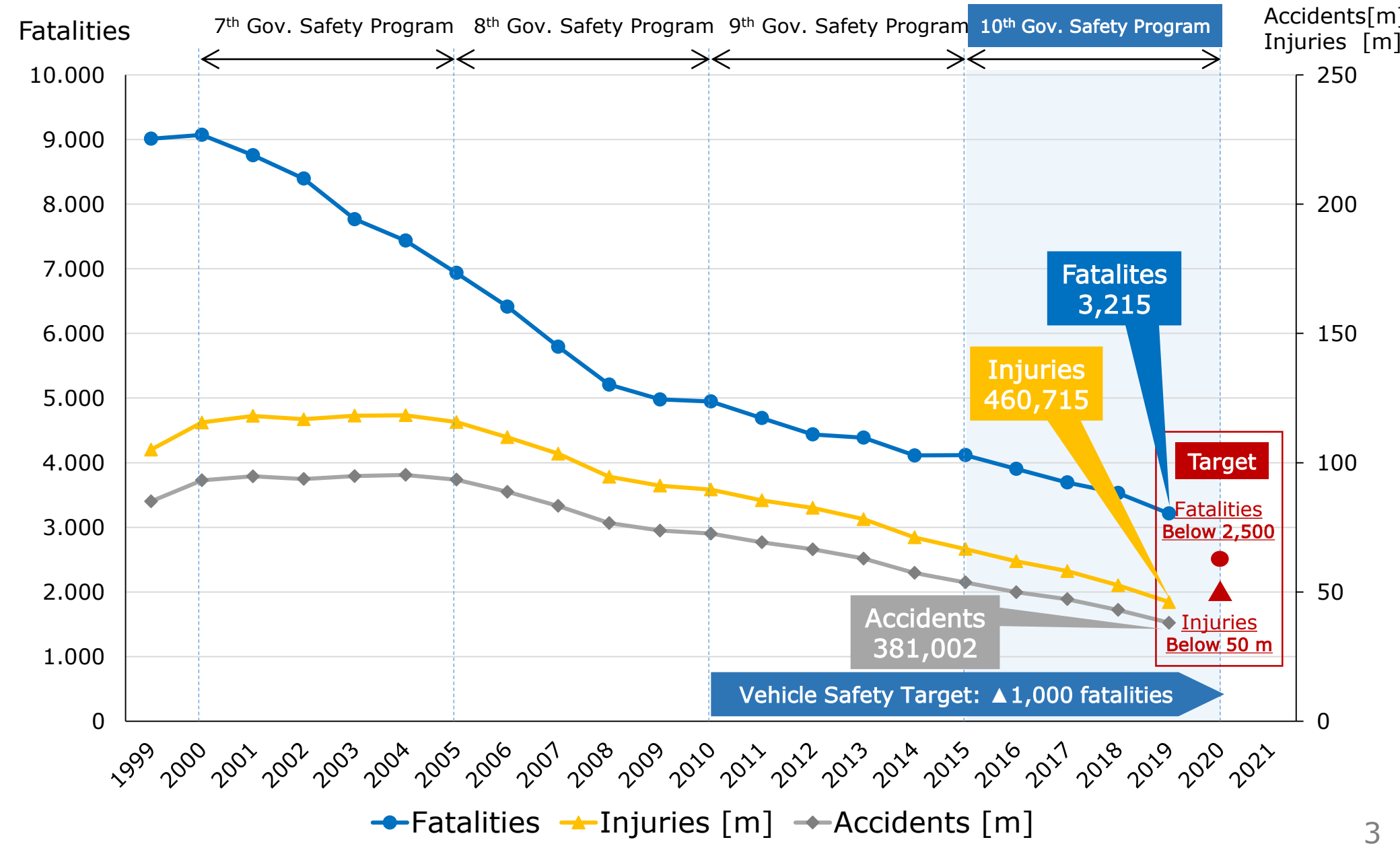
VRU-Proxi-13-XX
4-6 February 2020 in Osaka, Japan

Proposal to Enhance Vehicle Safety for VRUs

MLIT, Japan

Contents

Traffic Accidents and Governmental Target



Japan's Vehicle Safety Policy regarding VRUs

Motor Vehicle Safety Policy (from FY2016 to FY2020) [June 24th 2016]

- **Safety Measures for Child and Elderly Person**
- **Safety Measures for Pedestrian and Cyclist**

  To improve awareness of VRUs (pedestrian and cyclist) for drivers
  e.g. AEBS, Advanced light system, Night-time pedestrian warning, Driver's visibility around vehicle

Emergency Measures for Elderly Drivers and Children

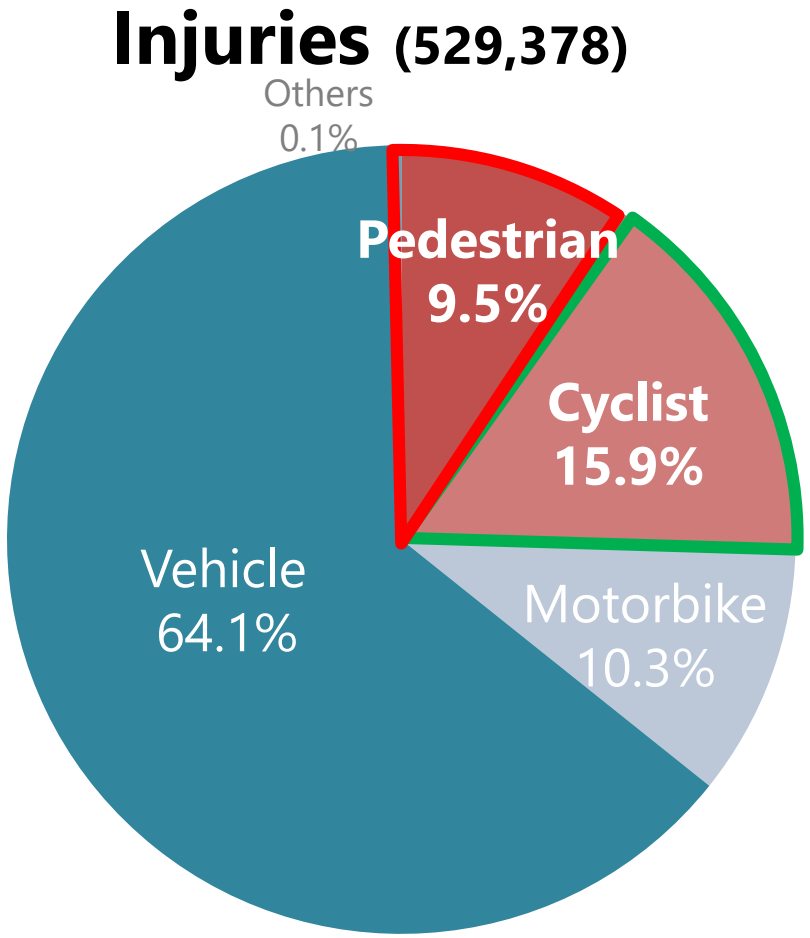
[June 18th 2019]

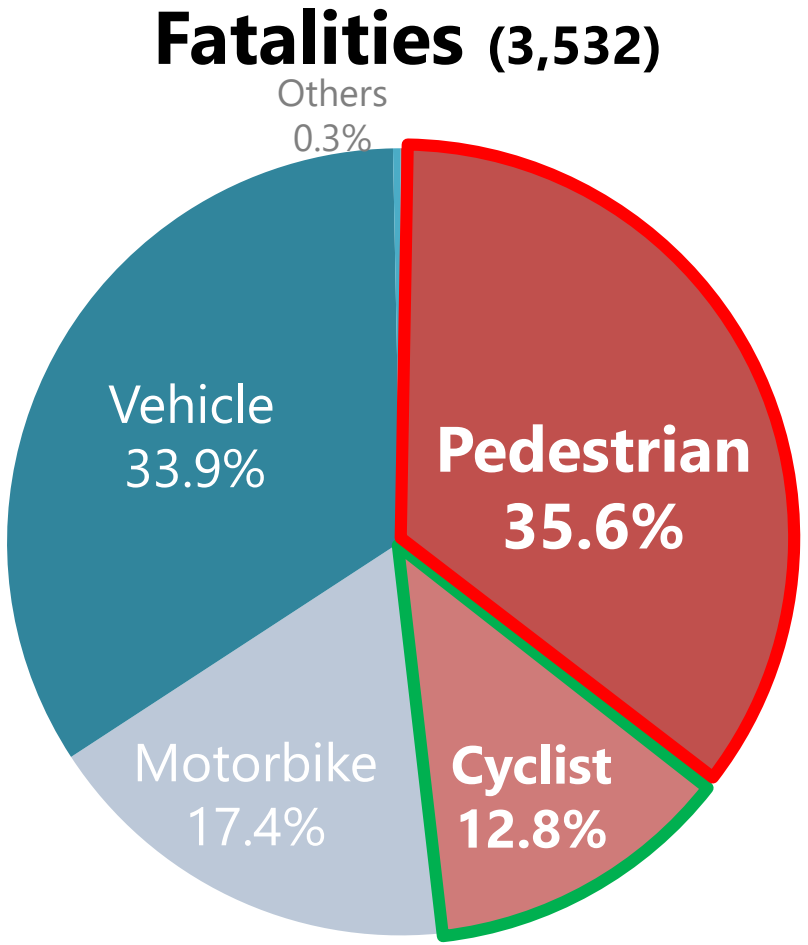
- **Countermeasures for car accidents involving elderly drivers and death of children**
  - Promotion of Safety Support Car
  - Introduction of new driver's license system limiting vehicle type

Injuries and Fatalities by Road User Type (2018)

Japan case

- Pedestrians account for 35.6% (1,258) of total fatalities. (If includes cyclists, up to 48.4% (1,711).)
- More than half of pedestrian fatalities are elderly persons (Age 65+).



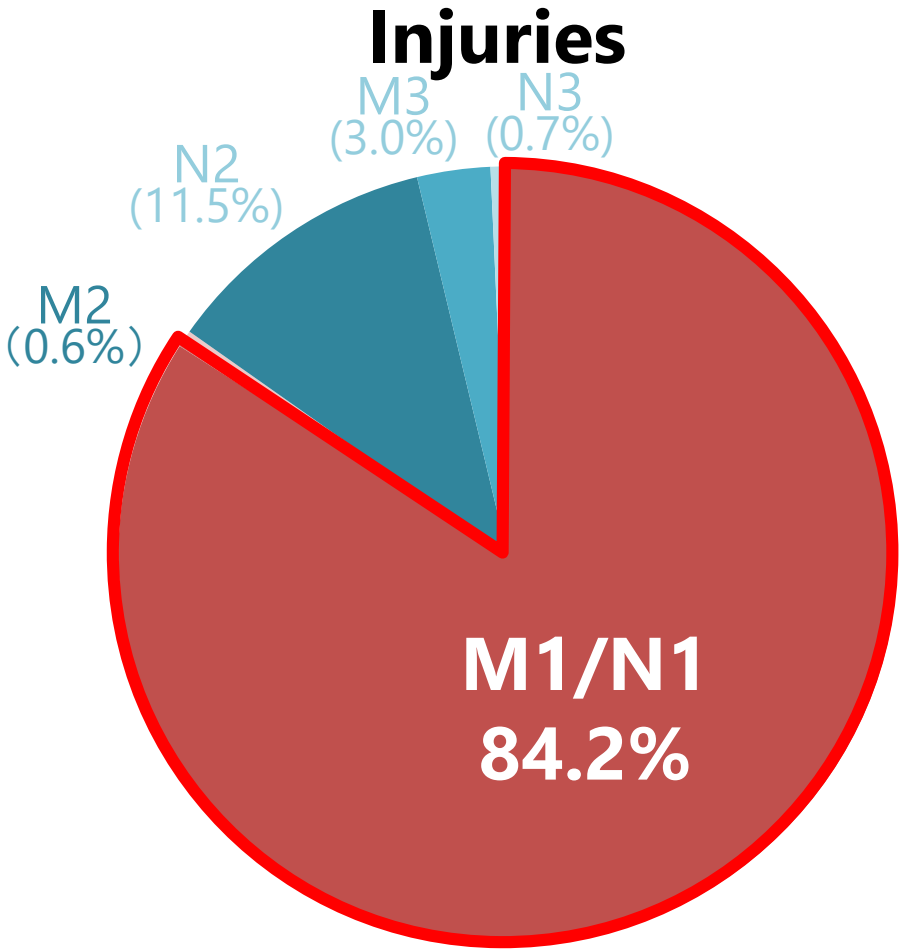


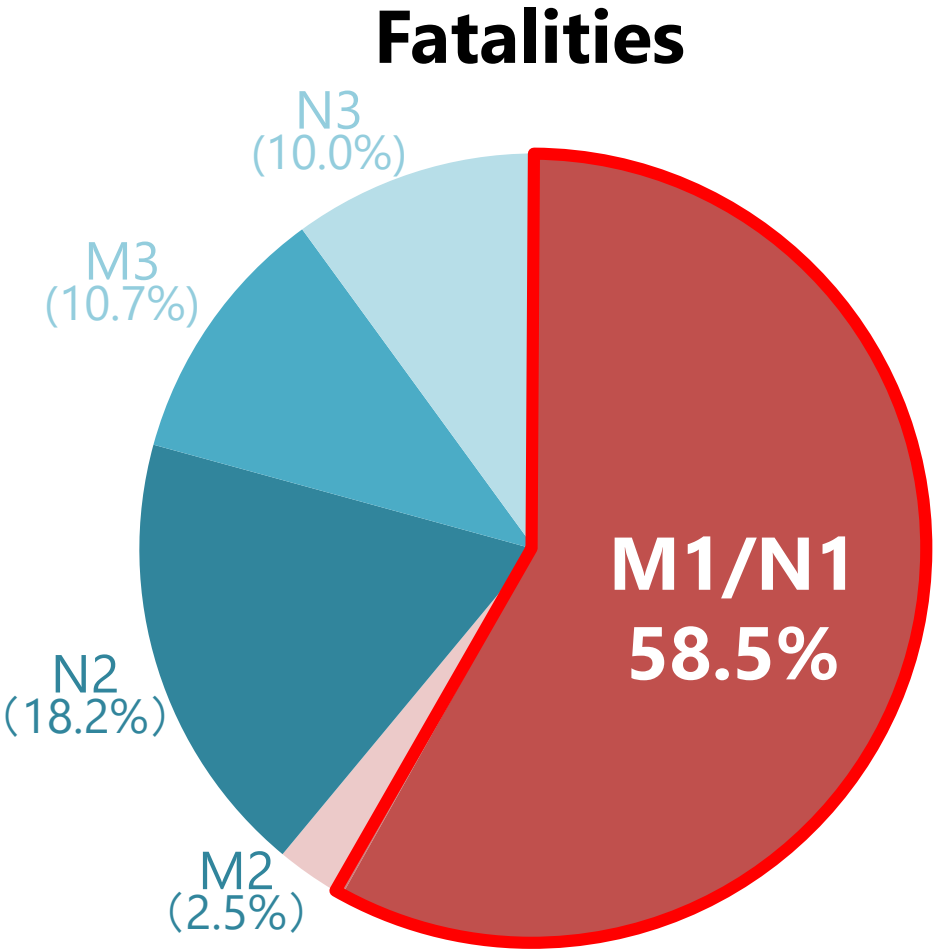
Source: 2018 Road traffic accident statics (National Police Agency)

Car(**below 20km/h**)-to-Pedestrian Injuries and Fatalities

Japan case

- M1/N1 contributes to more than half of total fatalities and injuries among pedestrians, at low speed (below 20km/h).



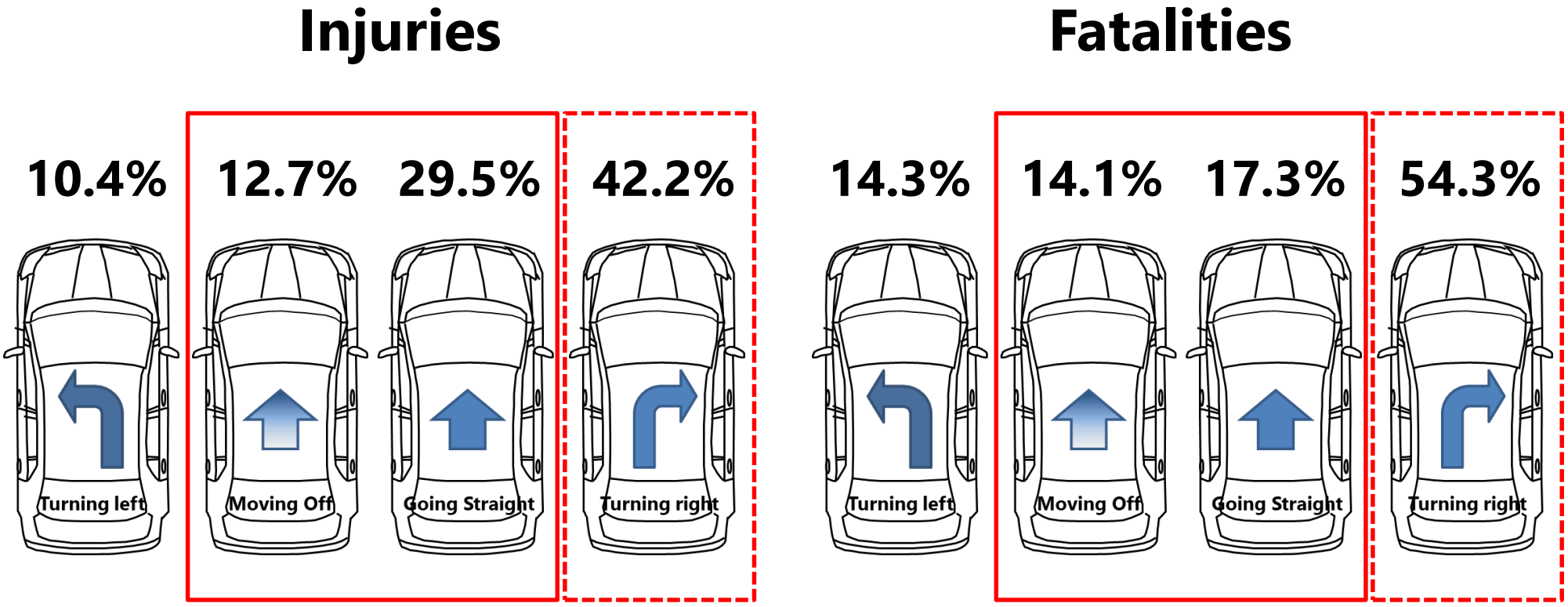


Source: Road traffic accident statics from 2014 to 2018 (5-year-accumulation) (ITARDA)

M1 and N1 M2 N2 M3 N3

Number of Injuries: 135,932 Number of fatalities：998

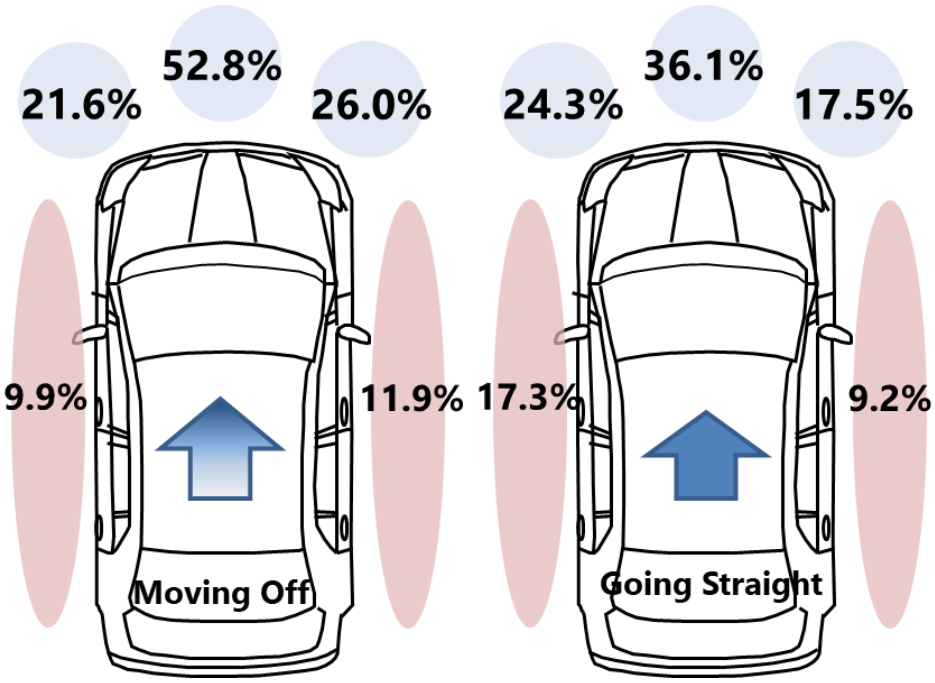
CtoP Injury and Fatality Composition by Vehicle Motion
(M1/N1, Forward motion below 20km/h)



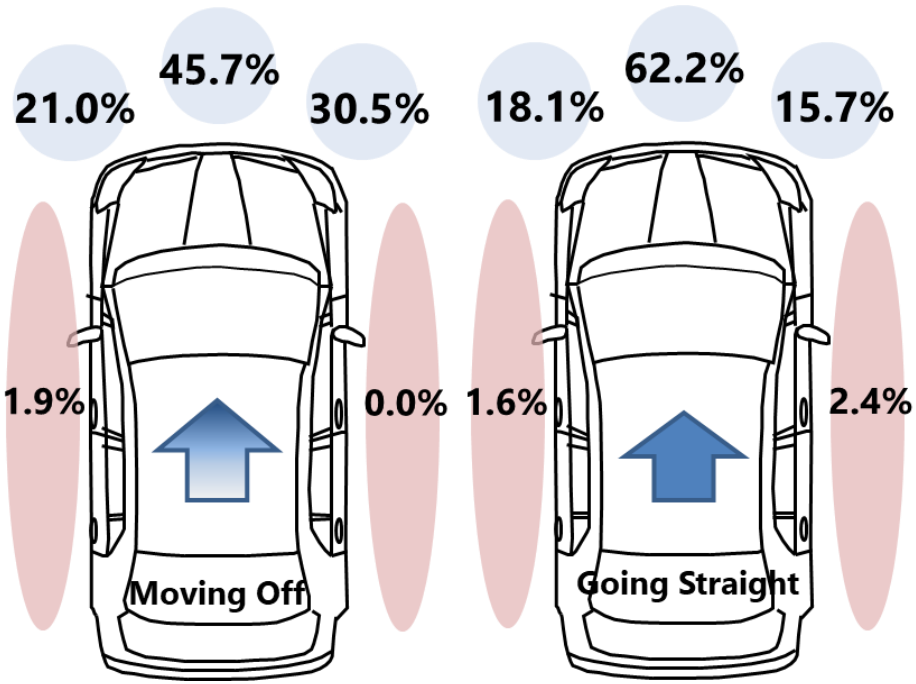
Source: Road traffic accident statics from 2014 to 2018 (5-year-accumulation) (ITARDA)
Number of Injuries: 125,471 Number of fatalities : 736 (*excluding other hitting points)

CtoP Injury and Fatality Composition by Hitting Position
(M1/N1, Moving off/Going straight below 20km/h)

Injuries



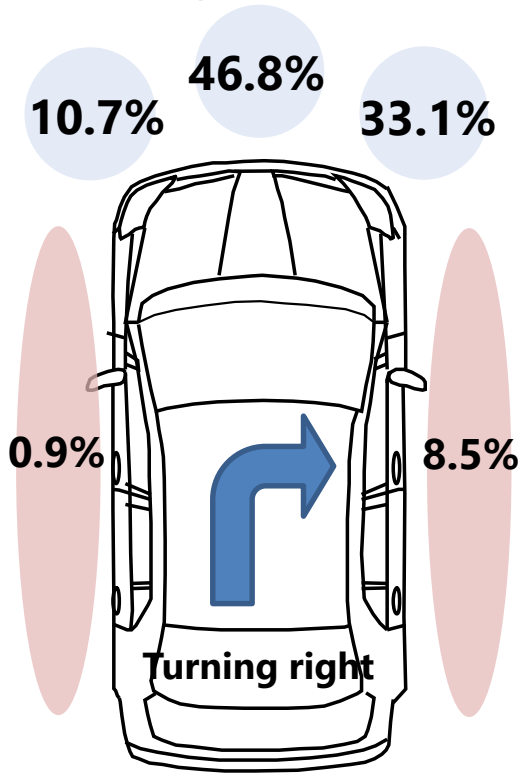
Fatalities



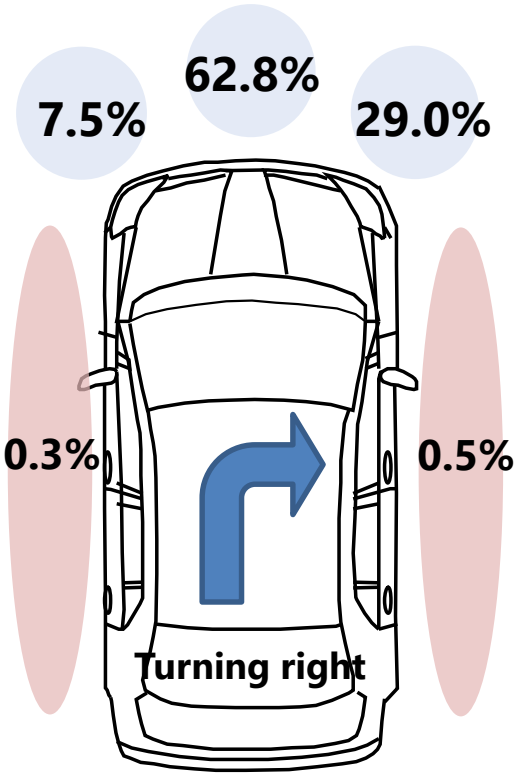
Source: Road traffic accident statics from 2014 to 2018 (5-year-accumulation) (ITARDA)
Number of Injuries: 15,939 Number of fatalities: 104 (*excluding other hitting points)

CtoP Injury and Fatality Composition by Hitting Position
(M1/N1, Turning right below 20km/h)

Injuries



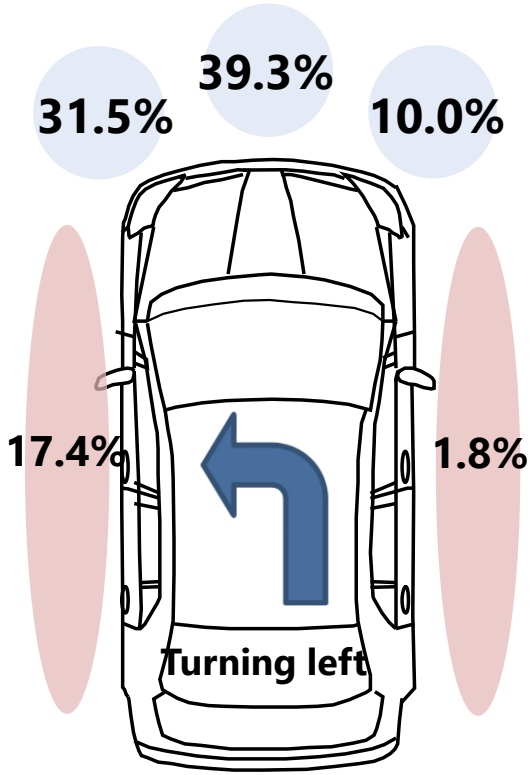
Fatalities



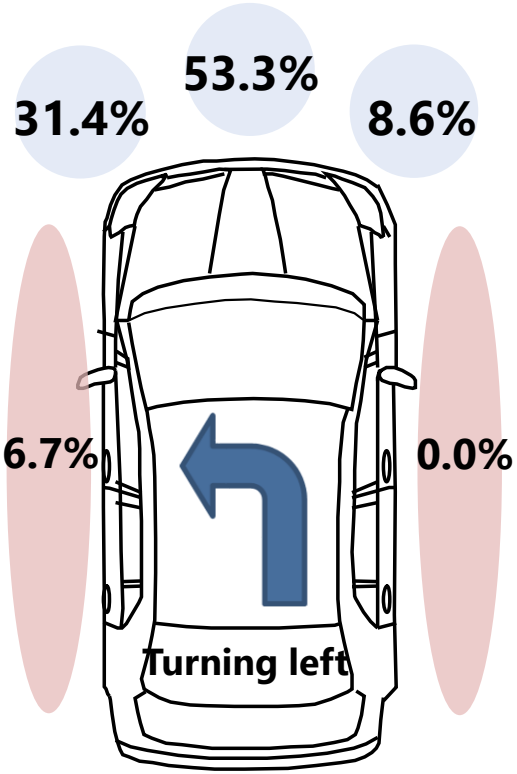
Source: Road traffic accident statics from 2014 to 2018 (5-year-accumulation) (ITARDA)
Number of Injuries: 59,493 Number of fatalities：400 (*excluding other hitting points)

CtoP Injury and Fatality Composition by Hitting Position
(M1/N1, Turning left below 20km/h)

Injuries



Fatalities



Source: Road traffic accident statics from 2014 to 2018 (5-year-accumulation) (ITARDA)
Number of Injuries: 13,059 Number of fatalities：105 (*excluding other hitting points)

Proposal (Our Priority)

Scope: **M1** and **N1**

Vehicle Motion: Moving off, Going straight (may include Turing left)
(*Maximum operational speed: 20km/h)

Detection Target: Pedestrians (may include cyclists)

Required Performance: Driver's vision around the vehicle (especially front and passenger-side direction)

Advanced technology to provide awareness for drivers

Next step

- At this IWG, MLIT provided information of the necessity to enhance driver's awareness of VRUs by focusing on M1/N1's accidentology.

- If CPs and other stakeholders kindly support it, we would like to proceed the discussion on drafting the forward motion of M1/N1.

- Japan welcomes comments from CPs and stakeholders.

Thank you for your attention.