

I Current state of Elderly People

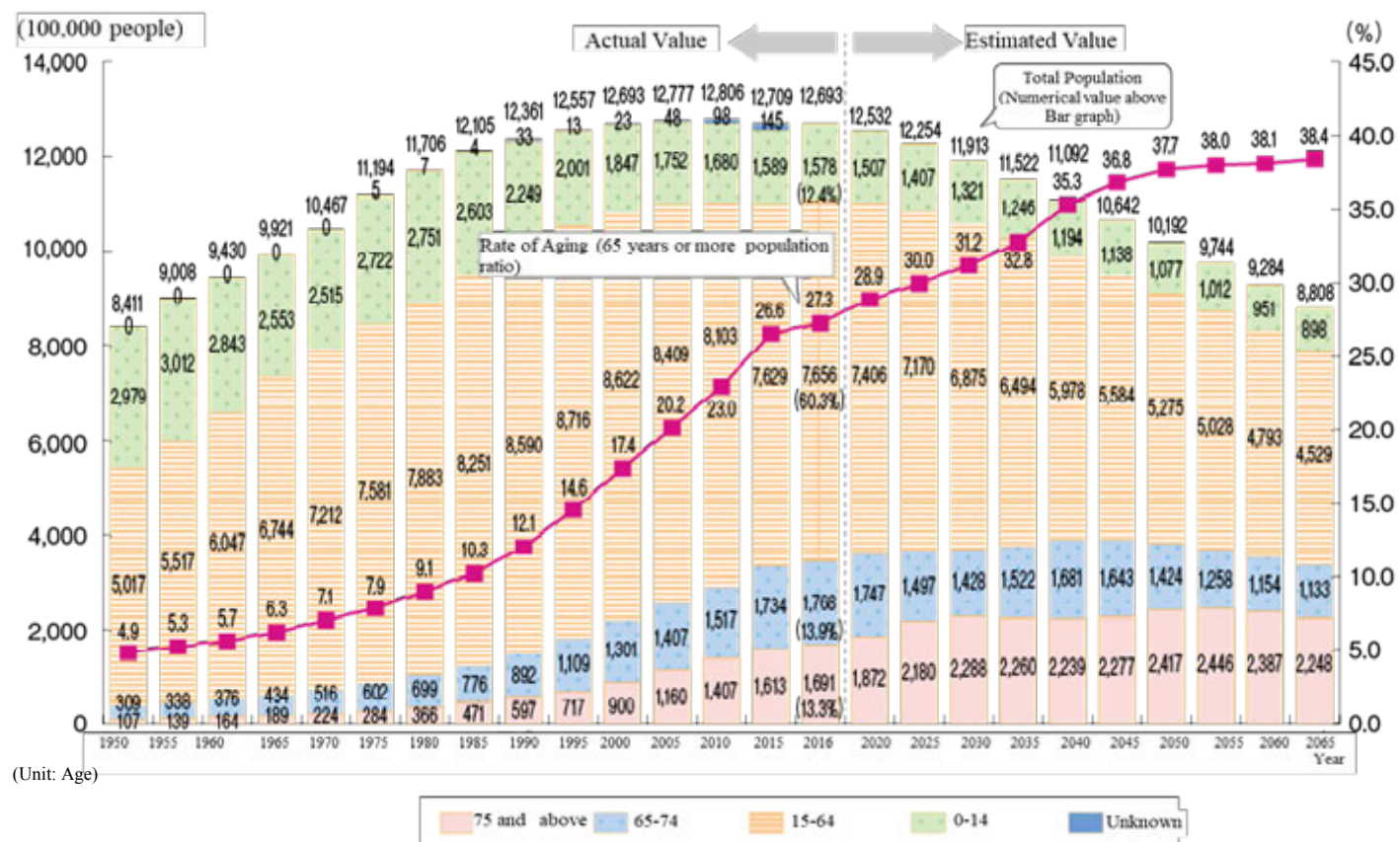
1 Progressing to an aging society

(1) Progressing to an aging society

In our country, we are rapidly progressing to an aging society. As of October 1, 2016, the population of people above 65 years is 34.59 million and its percentage in the total population (rate of aging) is 27.3%, which is approximately one in four people.

According to the estimate of the National Institute of Population and Social Security Research, in future, the rate of aging will continue to rise due to a decrease in total population and at the same time an increase in the population of elderly people. In 2036, the rate of aging will rise to 33.3% that is one in three people. From 2042 onwards, the rate of aging will continue to increase even after a decrease in the population of elderly people and in 2065 the rate of aging will reach 38.4% (Chart 1)

► Feature Article- Chart 1 Transition of aging population and future estimate



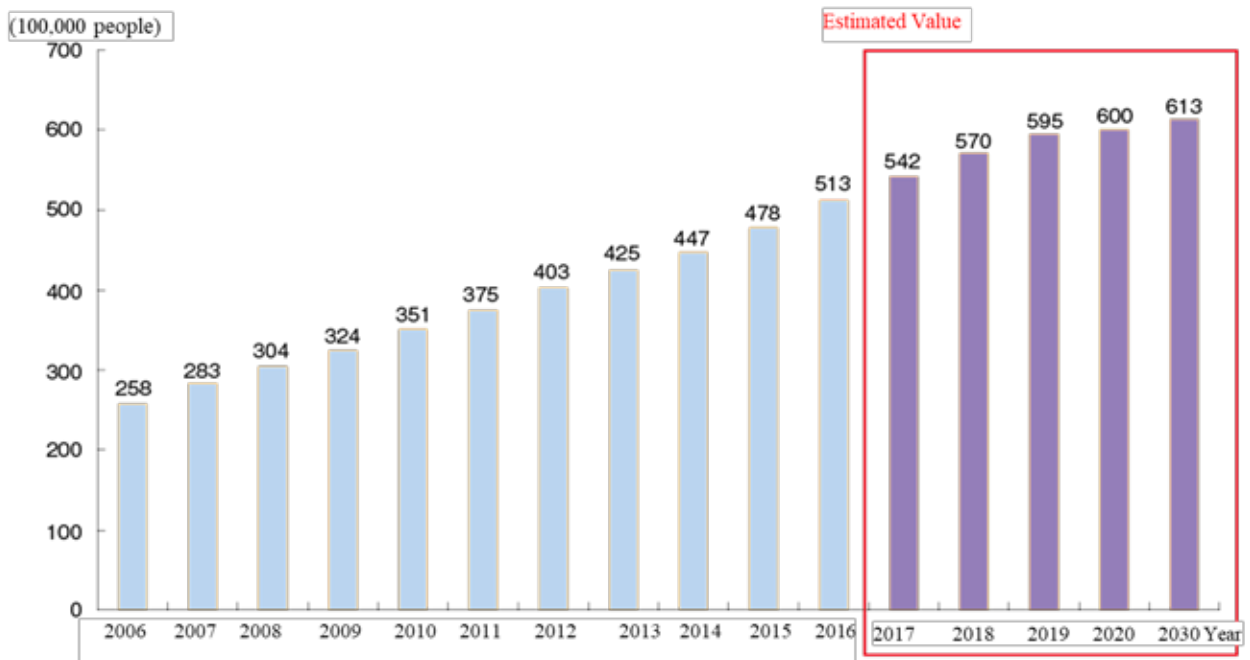
Documents: Ministry of Internal Affairs and Communications "Census" till year 2015, Ministry of Internal Affairs and Communications "Population estimate" of 2016 (Final value on October 1, 2016). After year 2020, the estimation result is according to birth and death notification of National Institute of Population and Security Research "Future estimated population of Japan (Estimated in 2017)".

Note: Statistic Bureau, Ministry of Internal Affairs and Communications calculated the age group wise population since 2016 based on the population of the people for whom the age is unknown with the help of "Population of the people whose census age or nationality was unknown in 2015 (Reference table)". Therefore, the people whose age is unknown are not seen since 2016. In the calculation of aging rate from 1950 ~ 2015, the people whose age is unknown are removed from the denominator.

(2) Increase in elderly driver's license holders

At the end of 2016, the number of driver's license holders is approximately 82.21 million and it has increased by approximately 60,000 (0.1%) as compared to 2015. Among these, the number of driver's license holders who are 75 years and above is approximately 5.13 million (approximately one in three people of the 75 years old and above population), and it had increased by approximately 35 million people (7.3%) as compared to the end of 2015. It is estimated that the number will increase in the future as well (Chart 2).

► Feature Article - Chart 2 Transition of driver's license holders who are 75 years and above



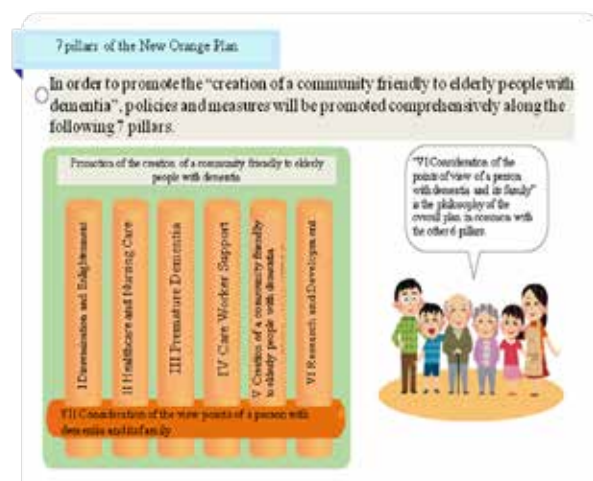
Note 1 Source: National Police Agency.

2 Numerical values after 2017 are estimated according to the depletion rate of driver's license holders. (Executed in February, 2017).

Topic

Comprehensive strategy to accelerate dementia measures (New Orange Plan) and efforts based on this plan.

In order to steadily implement the “Five-year plan for promoting dementia measures” (Orange Plan) announced in September, 2012 and to accelerate dementia measures, in January 2015, the “Comprehensive Strategy - To Realize Age and Dementia-Friendly Community (New Orange Plan)” (hereinafter, “Comprehensive Strategy”) was formulated. Also, at the time of formulation and announcement, a ministerial meeting on promotion of dementia measures was held. Based on the Comprehensive Strategy, it was confirmed that



related ministries and agencies would work together on dementia measures. The Comprehensive Strategy is designed to comprehensively promote measures against dementia along 7 pillars. In order to achieve a society where the will of people with dementia is respected and they are allowed to continue living in the good environment of a place where they have lived for a long time as much as possible by 2025 when so-called baby boomers become 75 years old and older, the Comprehensive Strategy and specifies numerical values for each policy with the end of FY 2017 as the target fiscal year for the time being. Specifically, measures have been promoted along with 7 pillars; (1) Raising awareness and promoting understanding of dementia, (2) Providing health care and long-term care services in a timely manner as the stages of dementia progress, (3) Strengthening the measures for early onset dementia, (4) Supporting those looking after people with dementia, (5) Creating age and dementia-friendly community, (6) Promoting research and development and disseminating the results of prevention, diagnosis, cure, rehabilitation model, and care model for dementia and (7) Promoting the standpoint of persons with dementia and their families.

(3) Age-related body characteristics of the elderly people

With aging, there are changes in physical functions of the elderly people such as decrease in the dynamic vision, weakening of the ability to process multiple information simultaneously, decrease in the ability of instantaneous judgment etc. Due to this, characteristics such as delay in the steering wheel and brake operation are seen¹.

There is also a concern about a decline in cognitive function due to aging, however, according to the National Police Agency, among the 1.66 million elderly people who underwent the cognitive function test at the time of getting their driver's license renewed, approximately 51,000 people were judged as first class cases with lowered cognitive function and with a fear of dementia.

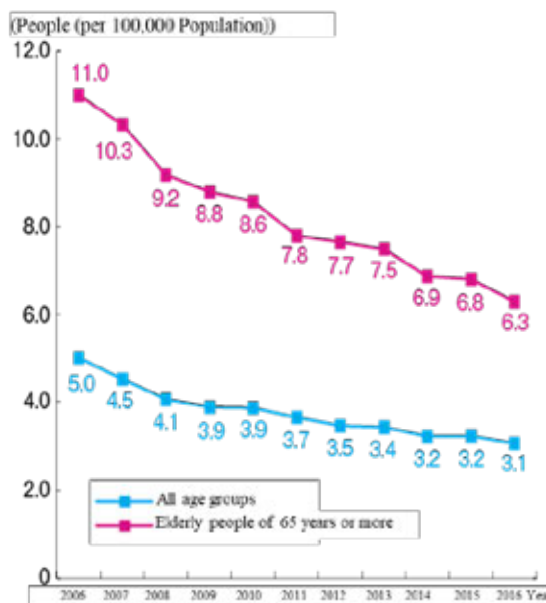
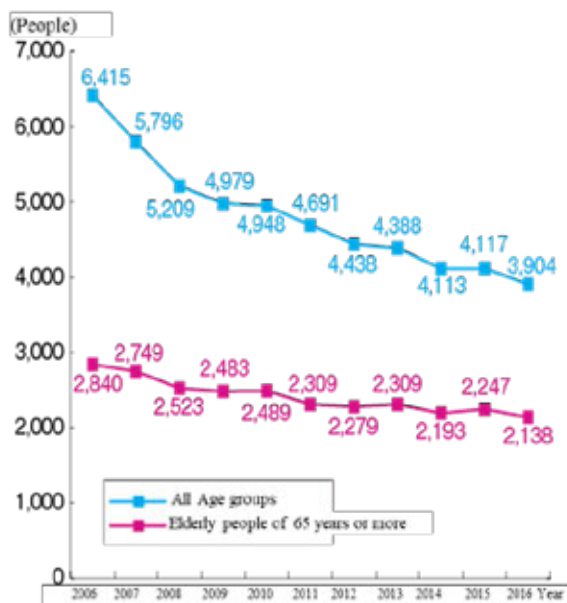
2 Characteristics of fatal traffic accidents of elderly pedestrians

(1) Occurrence situation of fatal accidents of elderly pedestrians

In 2016, the number of fatalities in traffic accidents is 3,904 (213 persons, -5.2%, Year-on-year) and for the first time in 67 years since 1949, it dropped to 4,000 people. The number of fatalities per population of 100,000 people showed a decreasing tendency in all the age groups including elderly people. However, since the population of elderly people in itself is increasing, the percentage of elderly people in the total number of deceased people shows an increasing tendency and it is 54.8% in 2016 which is a record high (Chart 3).

¹ Haruo Suzuki Motivating Senior Drivers toward Traffic Safety : the Traffic Sociology Viewpoint IATSS Review Vol.35.No. 3, International Association of Traffic and Safety Sciences, pp194-202, February, 2011.

► Feature Article-Chart 3 Transition of number of fatalities in traffic accidents and number of fatalities in traffic accidents per 100,000 people (2006~ 2016)



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Percentage of elderly people (%)	44.3	47.4	48.4	49.9	50.3	49.2	51.4	52.6	53.3	54.6	54.8

Number of fatalities per 100,000 people and relation between number of fatalities in accidents and population (2006-2016)

	Rate of change(%) of number of fatalities per 100,000 People	Rate of change(%) of population	Rate of change (%) of the number of fatalities in accidents
Total	-38.8	-0.5	-39.1
Elderly people	-42.7	31.5	-24.7
Other than the Elderly people	-45.9	-8.6	-50.6

Contribution breakdown for Total: Elderly people (-10.9), Other than the Elderly people (-28.2)

Notes1: As per the documents of the National Police Agency. However, cabinet office created for "number of fatalities per 100,000 people and relation of population and number of fatalities in accidents (2006~2016).

2 The population used to calculate depends on the statistics material by Ministry of Internal Affairs and Communications Ministry of Internal Affairs and Communications "Population estimate (As of each age October 1)" (population before the interpolation is corrected) in each the previous year or "Census result". The same shall apply hereinafter.

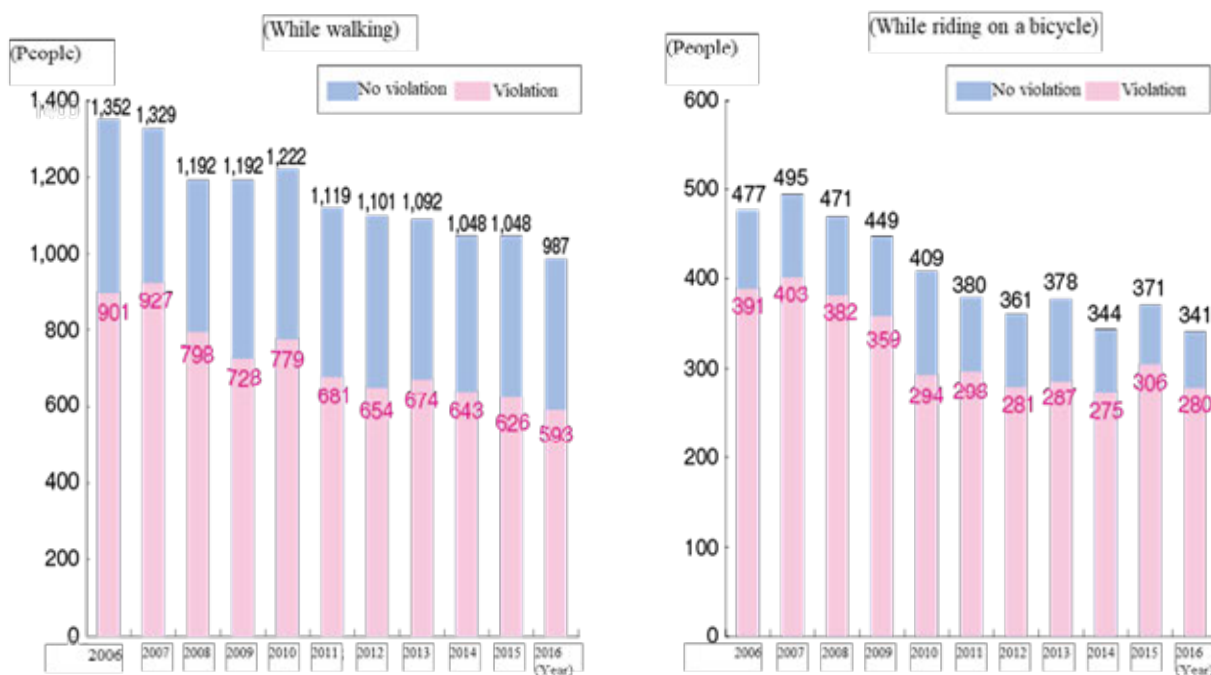
3 Degree of contribution: It shows that up to what extent the change of index of certain items contributes to the rate of change of general index.

If the deaths when classified by state (driving in a car, riding a motorcycle, riding a bicycle, walking) are considered, amongst elderly people the number of fatalities and the percentages while walking is 1003 (73.7%), while riding a bicycle is 342((67.2%) which are at a higher ratio compared to other states (driving in a car 643 (48.1%), riding on a motorcycle 142(20.8%). The number of accidental deaths in elderly pedestrians is becoming higher.

Moreover, among the deaths of elderly people while walking and while riding a bicycle, the percentage of fatalities due to violation of the law respectively has changed to approx. 60% and approx. 80%; and it is

considered that violation of law by the elderly people is one of reasons for deaths in traffic accidents (Chart 4).

►Feature Article – Chart 4 Changes (FY 2006 - 2016) in the situations of the violation of laws and regulations (violation rate) of fatalities while walking or riding a bicycle (elderly people)



Violati on rate	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	67%	70%	67%	61%	64%	61%	59%	62%	61%	60%	60%

Violati on rate	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	82%	81%	81%	80%	72%	78%	78%	76%	80%	82%	82%

Note 1 Source: National Police Agency

2 Total of Primary and Secondary parties

3 The primary party means the person with the heaviest negligence of the parties involved in a traffic accident, or the person with the lightest damage if the extent of negligence is nearly identical. The secondary party means a person of parties involved in a traffic accident initially, other than the primary party. The same shall apply hereinafter.

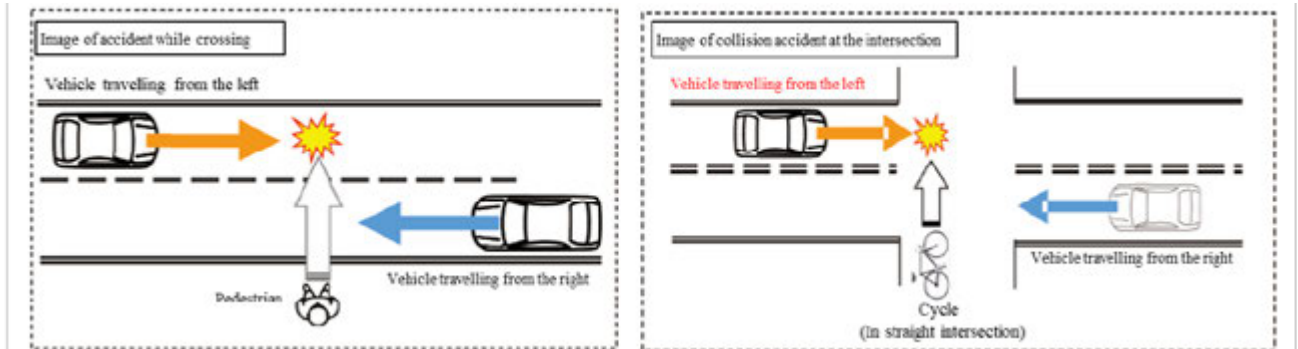
(2) Characteristics and their factors for the deaths of elderly pedestrians in traffic accidents

In terms of the types of the traffic accidents having fatalities of elderly pedestrians, there are number of types of accidents such as the fatal accident when a pedestrian collides with a vehicle while crossing the road, accidents in which bicycle users collide head on with the vehicles (car) at intersections. If we observe them in detail, accidents of pedestrian while crossing the roads at intersections and on single roads, the number of elderly people is more than that of the not elderly, again, at night, there are many accidents by collisions with vehicles progressing from the left, specifically there has been an increase in the number of cases involving elderly people. (Chart 5 and chart 6). Further, for the accidents while riding a bicycle, the percentage of fatal traffic accidents in which bicycles collide with the vehicle progressing from the left at night on single roads and at intersections is high. That trend has become remarkable particularly in case of elderly people (Chart 5 and chart 7).

With regard to the number of fatal accidents occurring because of pedestrians colliding with the vehicle progressing from the left, cases such as the driver might have noticed the pedestrians progressing from right

side late because the right front pillar becoming a blind spot for the vehicle driver, or the driver getting easily distracted by the vehicle travelling from the left direction at the intersection can be considered.

►Feature Article – Chart 5 Image view of fatal accidents involving pedestrians and bicycles



Note Source: National Police Agency.

►Feature Article– Chart 6 Vehicle travelling direction wise number of fatal accidents while day and night time wise crossing (2016)

		<Intersection>		<Non-Intersection>	
		Vehicle travelling from the left	Vehicle travelling from the right	Vehicle travelling from the left	Vehicle travelling from the right
People other than elderly people	Day time	6	4	4	5
	Night time	47	14	28	16
Elderly people	Day time	31	41	26	26
	Night time	151	52	180	40

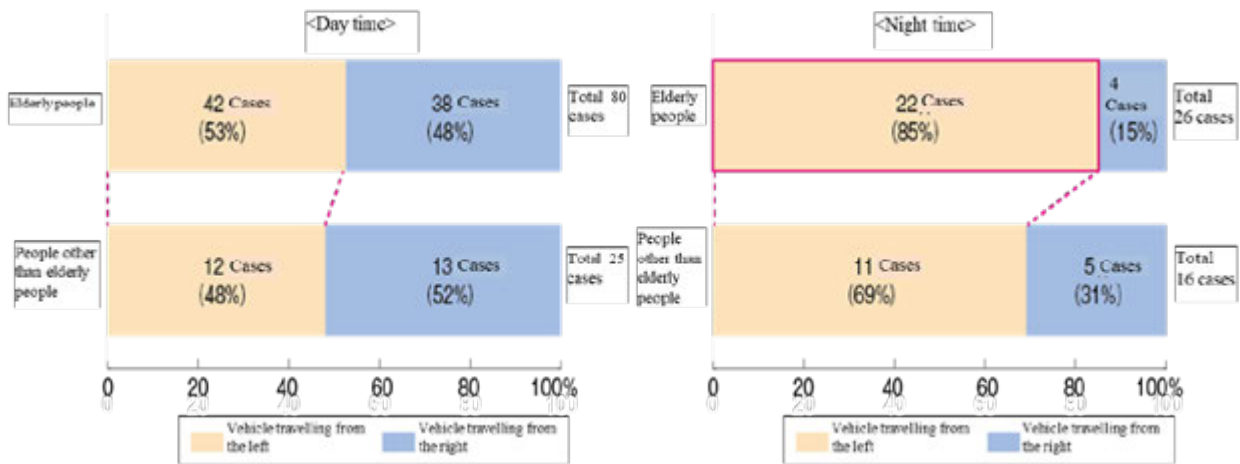
2.9 Times
4.5 Times

Note 1 Source: National Police Agency

2 Total of Primary and Secondary parties

3 “Day time” means the time from sunrise to sunset. The “Night time” means the time from sunset to sunrise.

► **Feature Article – Chart 7 Comparison of travelling directions of vehicles (car) with respect to straight advancing bicycles in the crossing collision accident at the intersection during day and night times**



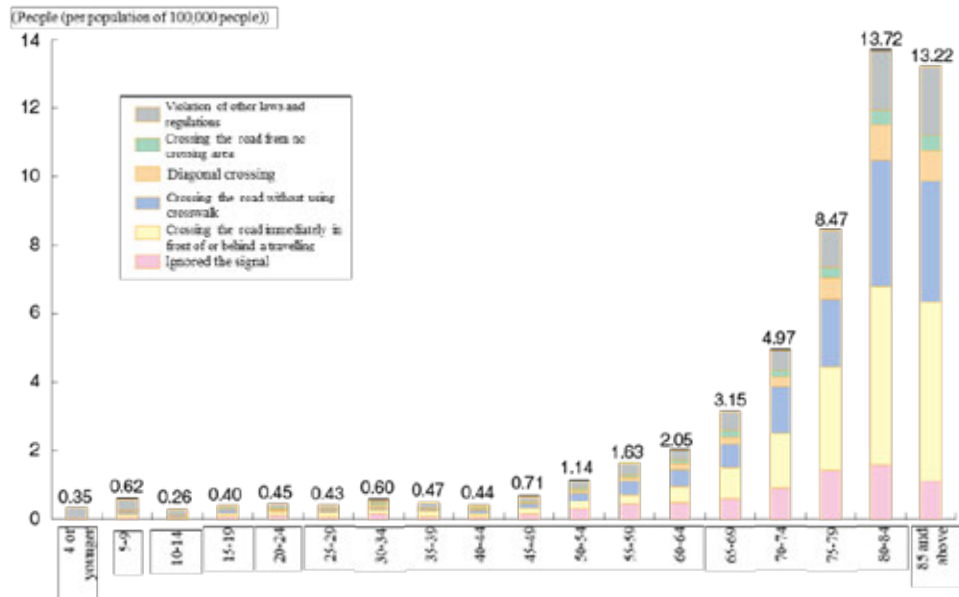
Note 1 Source: National Police Agency

2 Total of Primary and Secondary parties

3 “Day time” means the time from sunrise to sunset. The “Night time” means the time from sunset to sunrise.

Elderly pedestrians crossing immediately in front or from the back of a vehicle, crossing the road without using crosswalk are considered to be one amongst many factors for the fatal accident in which elderly pedestrians collide with the vehicles progressing from the left. According to the death rate of the pedestrian per population of 100, 000 crossing the road due to violation of laws and regulations in the period of 2012 to 2016, it was seen that violation of laws and regulations increases along with the increase in age. Particularly, there is an increasing trend among the elderly people of crossing immediately in front or from behind a progressing vehicle or crossing without using crosswalk which is a violation of law and regulation (Chart 8). Similarly, for the head on collision accident at the intersection while riding a bicycle, there is an increase in violation of laws and regulation with age. Among the elderly people, there is an increasing trend to proceed non-stop or ignore signals which is a violation of laws and regulation (Chart 9). Hence, it is considered that the elderly people who have undergone changes in the body function because of aging easily meet with accidents occurring because of such violations of laws and regulations.

►Feature Article– Chart 8 Comparative content of contravention to the law at the time of fatalities while crossing for pedestrians per population of 100,000 (total 2012 ~ 2016)



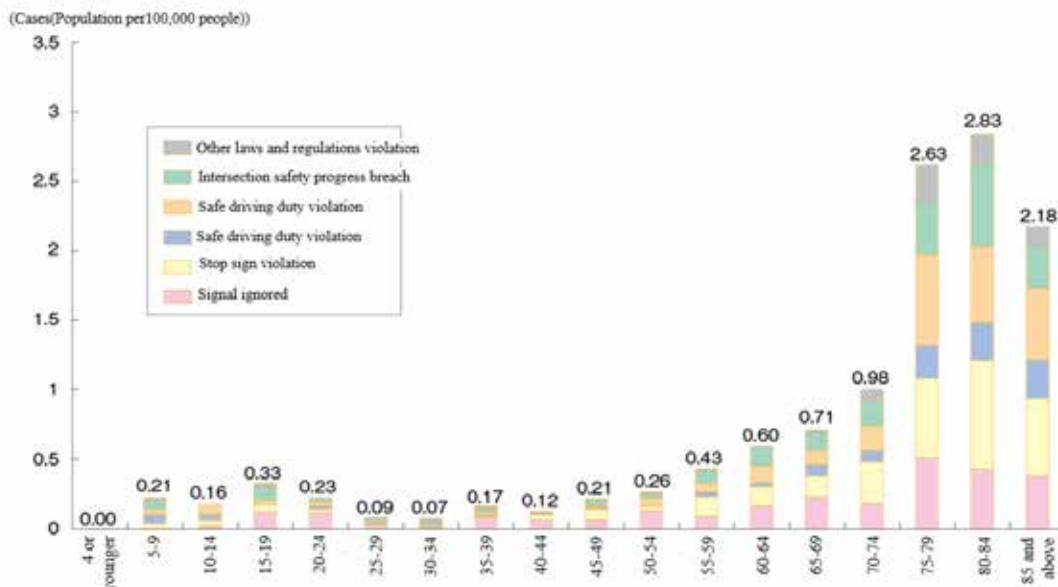
Note 1 Source: National Police Agency

2 Total of Primary and Secondary parties in 2012 ~ 2016

3 “Other violation law” means jumping out, drunkenness.

4 Population is according to “Estimate of population (As of October 1, every year)” of Ministry of Internal Affairs and Communications statistic of 2016 which is the intermediate year of the 5 years of target period (2012 ~ 2016).

►Feature Article– Chart 9 Situations of legal violation for an straight progressing bicycle at the time of collision accident at the intersection per population of 100,000 (total 2012 ~ 2016)



Note 1 Source: National Police Agency

2 Total of Primary and Secondary parties in 2012 ~ 2016

3 “Other law violation” indicates slow loitering

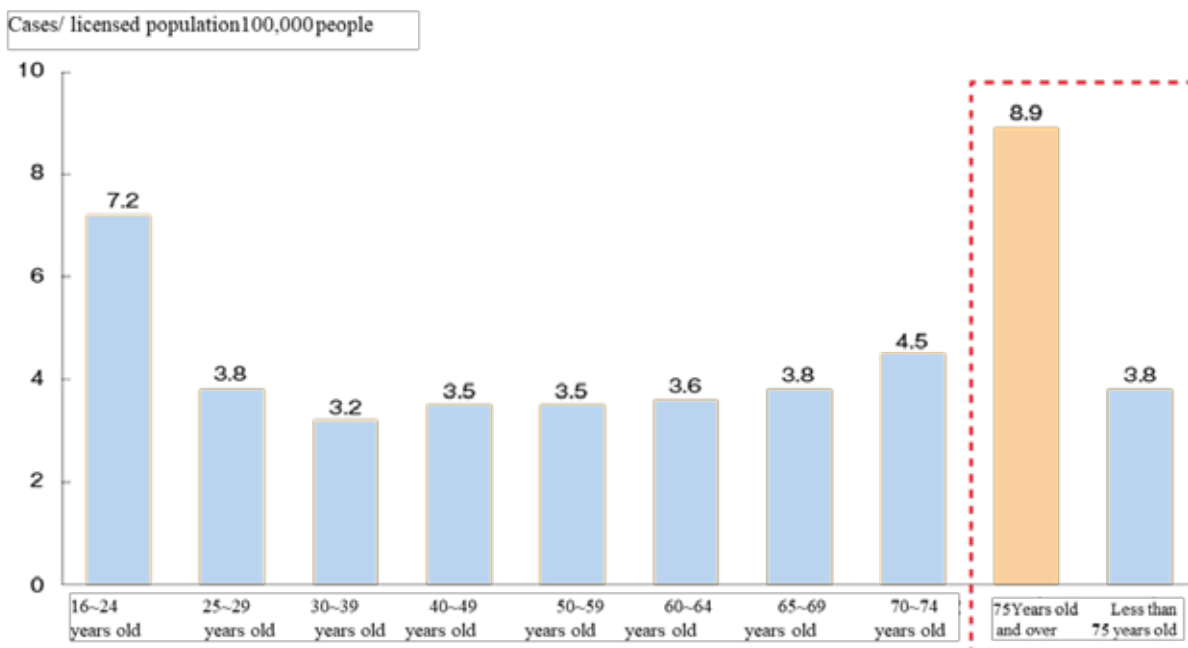
4 Population is according to “Estimate of population (As of October 1, every year)” of Ministry of Internal Affairs and Communications statistic of 2016 which is the intermediate year of the 5 years of target period (2012 ~ 2016).

3 Characteristics of fatal traffic accidents by elderly drivers

(1) Situations of occurrence of fatal accidents by elderly drivers

Regarding the number of cases of fatal accidents per license holder population of 100, 000, the number in case of drivers of age 75 years and above is more than double of that compared to drivers of age below 75 years (Chart 10).

Feature Article – Chart 10 The number of fatal accidents per 100, 000 license holder population by age group (primary party on moped bike) (2016)



Note 1 Source: National Police Agency

2 It is the number calculated per license holder population of 100,000 as of the end of December 2016

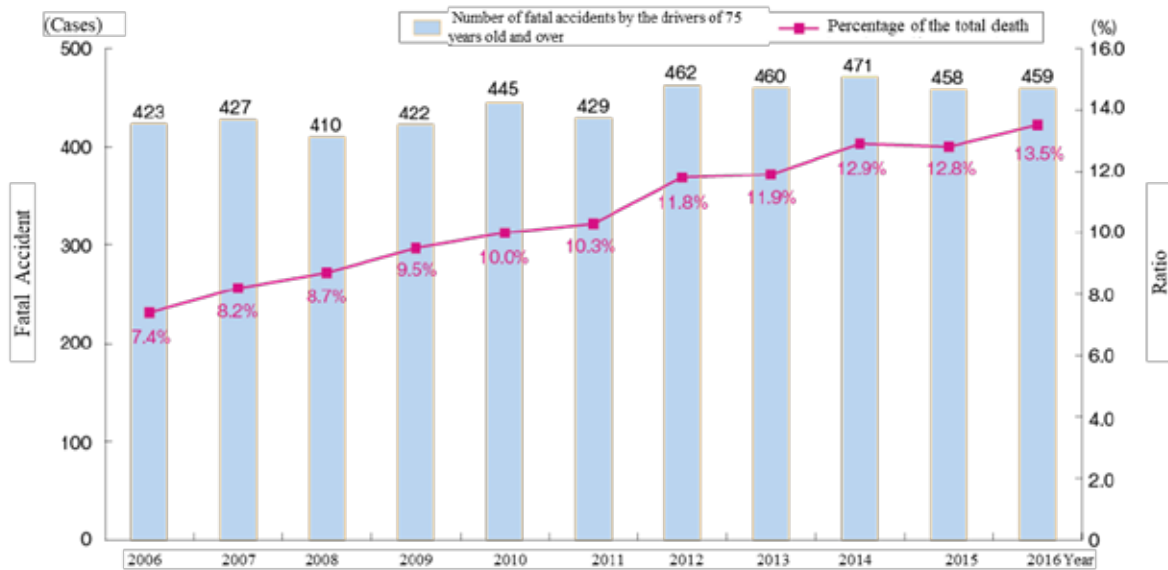
Regarding the characteristics of elderly drivers, although large differences among individuals are recognized depending on age, fitness, past experience, etc., generally speaking, these characteristics include,

- ż Weakened eyesight makes it difficult to obtain the surrounding information related which might lead to inappropriate judgment
- ż Prompt response gets delayed, because the reflexes become dull.
- ż Overall weakening of the physical strength makes the driving operation inaccurate and it becomes difficult to continue long to me driving operation.
- ż Driving becomes self-centric and it becomes difficult to objectively understand the traffic environment.

These characteristics are considered to be one of the factors which easily cause fatal accident by drivers of 75 years or above.

Although the number of cases has remained almost unchanged for 10 years for fatal accidents caused by drivers of 75 years and above, the composition ratio on the whole is on an upward trend, and it accounts for 13.5% of the total even though the total number of accident deaths has decreased, (Chart 11).

►Feature Article– Chart 11 The number and percentage of fatal accidents caused by drivers of 75 years and above (primary parties on moped vehicles) (year 2016~2026)

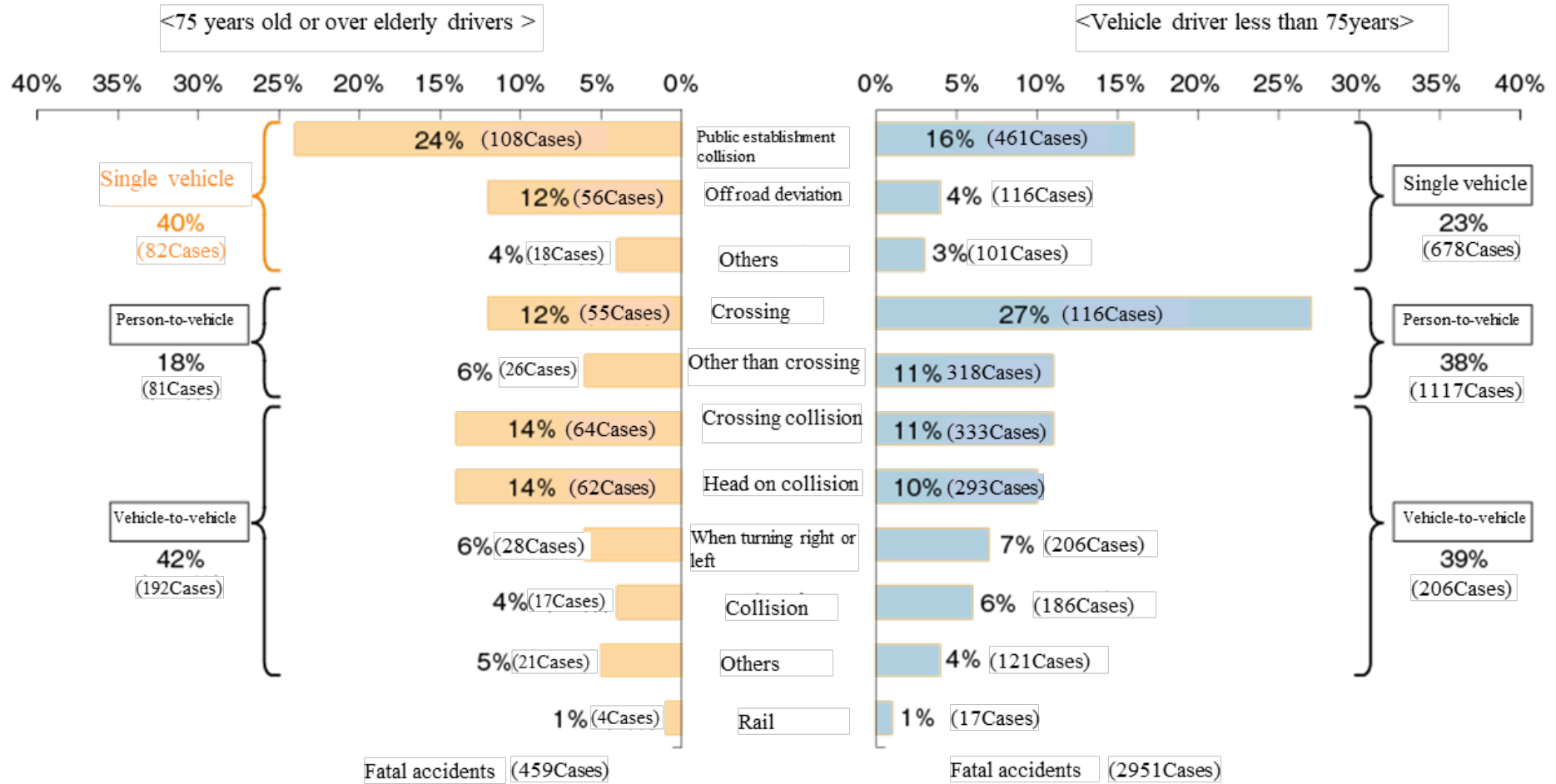


Source: National Police Agency

(2) Characteristics of fatal traffic accidents caused by elderly drivers and its factors

If the traffic accident deaths caused by elderly drivers are seen by pattern, the ratio of single vehicle accidents caused by drivers of 75 years or above has increased and occupies 40% of the total. This is higher than the rate of single accidents (23%) by drivers below 75 years. As a specific type, collision with objects is caused most frequently due to rash driving and deviating from the lane. On the other hand, accidents involving people and vehicles are relatively large in case of drivers below 75 years, and to be more precise, many accidents have occurred while crossing the road. (Chart 12).

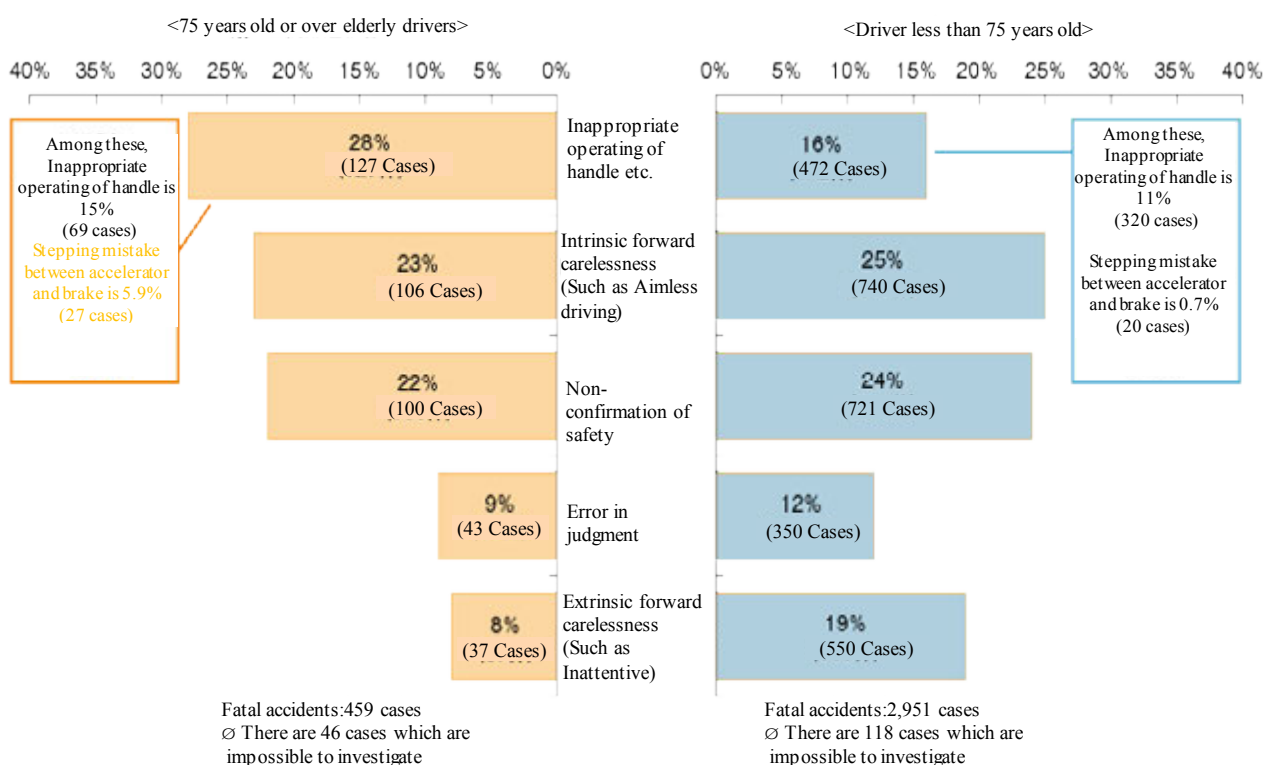
► Feature Article– Chart 12 Comparison of the number of fatal accidents of the primary parties on moped vehicles by type (year 2016)



Source: National Police Agency

Also, looking at the human factors of traffic death accidents by elderly drivers, accidents due to unsuitable operation of steering wheel are the most frequent accidents for drivers 75 years old and above, followed by intrinsic forward negligence (incompetent driving etc.), and lack of safety confirmation, in that order. On the other hand, intrinsic forward carelessness and lack of safety confirmation occur relatively frequently for drivers below 75 years. In addition, death accidents due to mistake in stepping on the brake and accelerator among accidents caused by improper operation of the steering wheel etc. are only 0.7% of the total fatal accidents under the age of 75, while 5.9% at the age of 75 and above which is quite high. (Chart 13)

►Feature Article– Chart 13 Comparison of human factors in fatal accidents of primary parties on moped vehicles (year 2016)



Source: National Police Agency

○ Example of accident by elderly driver

In November 2016, a man in his 80's driving a passenger car lost the control of the vehicle by miss treading on the accelerator instead of brake pedal in the parking lot of a hospital in Shimotsuke City, Tochigi prefecture. His car hit a woman sitting on the bench and crashed into the supporting pillar of the building. As a result, one woman died and two women were injured, one slightly and another seriously.

