Koriyama City Safe Community Promotion Council

Traffic Safety Task Force Activity Report

Presenter: Kenji Abe, Chair

Background of Traffic Safety Task Force

Number of deaths by causes other than illness

Total of deaths from 2009 to 2015

Fig. 1

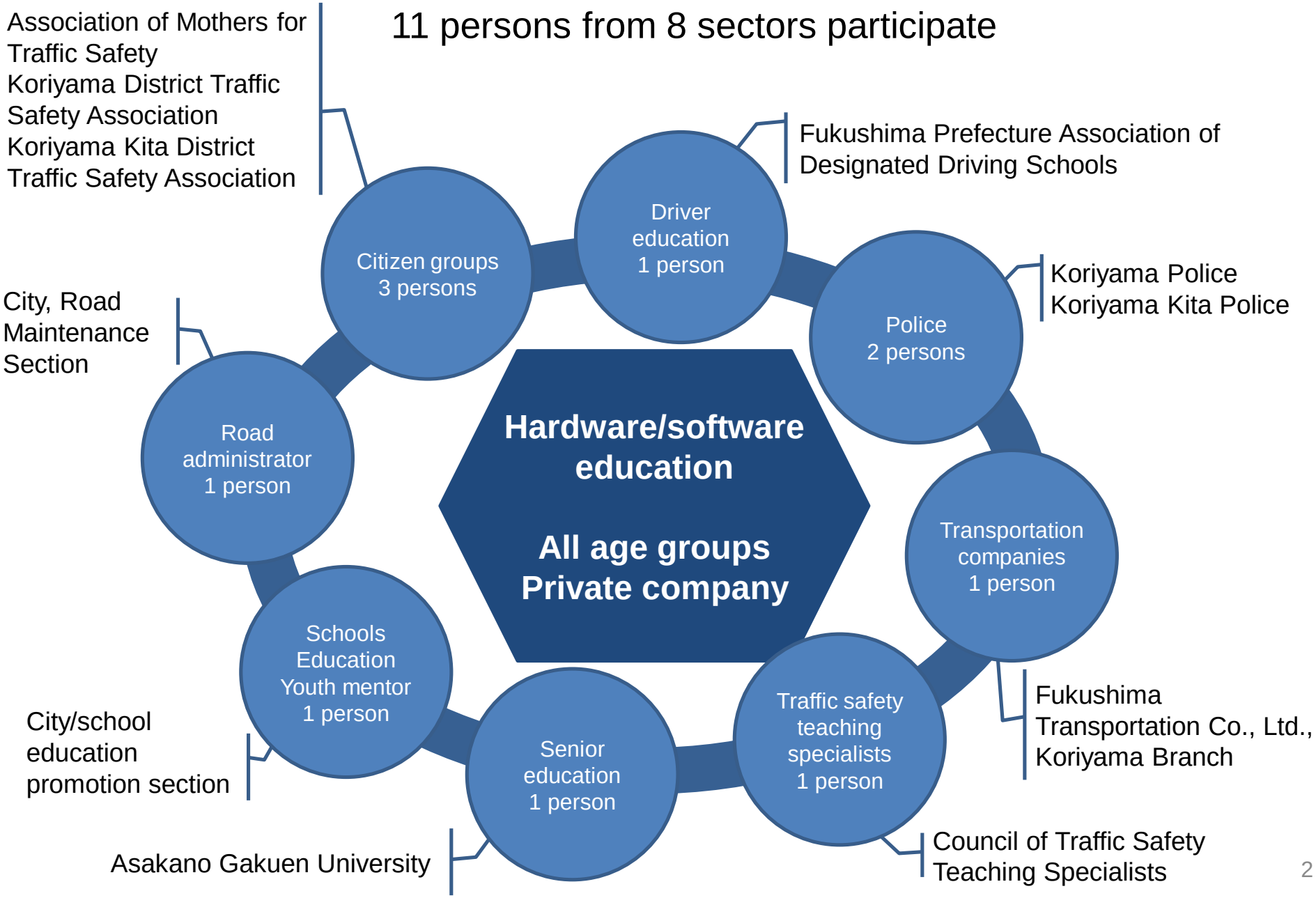
Age group	1st place		2nd place		3rd place	
0 to 9 y.o.	**Suffocation**	**3 people**	Traffic accident	2 people	Falls or tumbles	1 people
			Drowning or near-drowning	2 people		
10 to 19 y.o.	**Suicide**	**10 people**	**Traffic accident**	**4 people**		
20 to 29 y.o.	**Suicide**	**70 people**	**Traffic accident**	**7 people**		
30 to 39 y.o.	**Suicide**	**70 people**	**Traffic accident**	**9 people**		
40 to 49 y.o.	**Suicide**	**92 people**	**Traffic accident**	**17 people**	**Suffocation**	**5 people**
50 to 59 y.o.	**Suicide**	**106 people**	**Traffic accident**	**18 people**	Drowning or near-drowning	9 people
60 to 69 y.o.	**Suicide**	**78 people**	**Traffic accident**	**21 people**	**Suffocation**	**16 people**
70 to 79 y.o.	**Suicide**	**47 people**	**Suffocation**	**35 people**	Traffic accident	32 people
80 to 89 y.o.	**Suffocation**	**96 people**	Falls or tumbles	39 people	Drowning or near-drowning	33 people
					Suicide	**33 people**
90 y.o. and older	**Suffocation**	**46 people**	Falls or tumbles	19 people	Drowning or near-drowning	7 people
Total	**Suicide**	**511 people**	**Suffocation**	**212 people**	Traffic accident	132 people

Traffic accident deaths ranked second in a wide range of age groups

Source: Koriyama City Health Department "Demographic Statistics (Report on Causes of Death)"

Composition of Traffic Safety Task Force

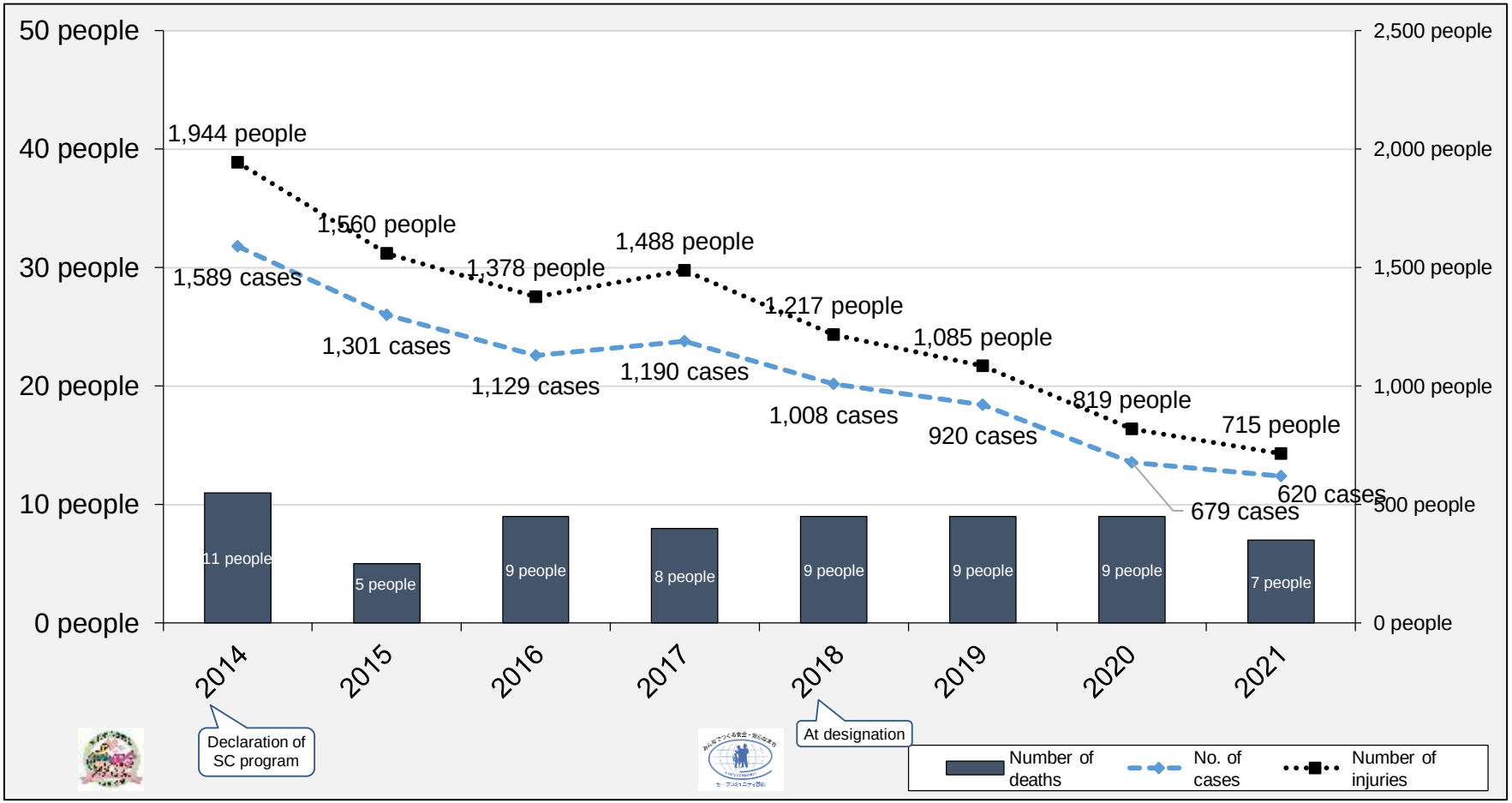
11 persons from 8 sectors participate



Identifying challenges from data (1)

Change in situation of traffic accident (personal injury) incidents

Fig. 2



Source: Fukushima Prefecture Police Headquarters “Traffic White Papers” and “Overview of Traffic Accidents”

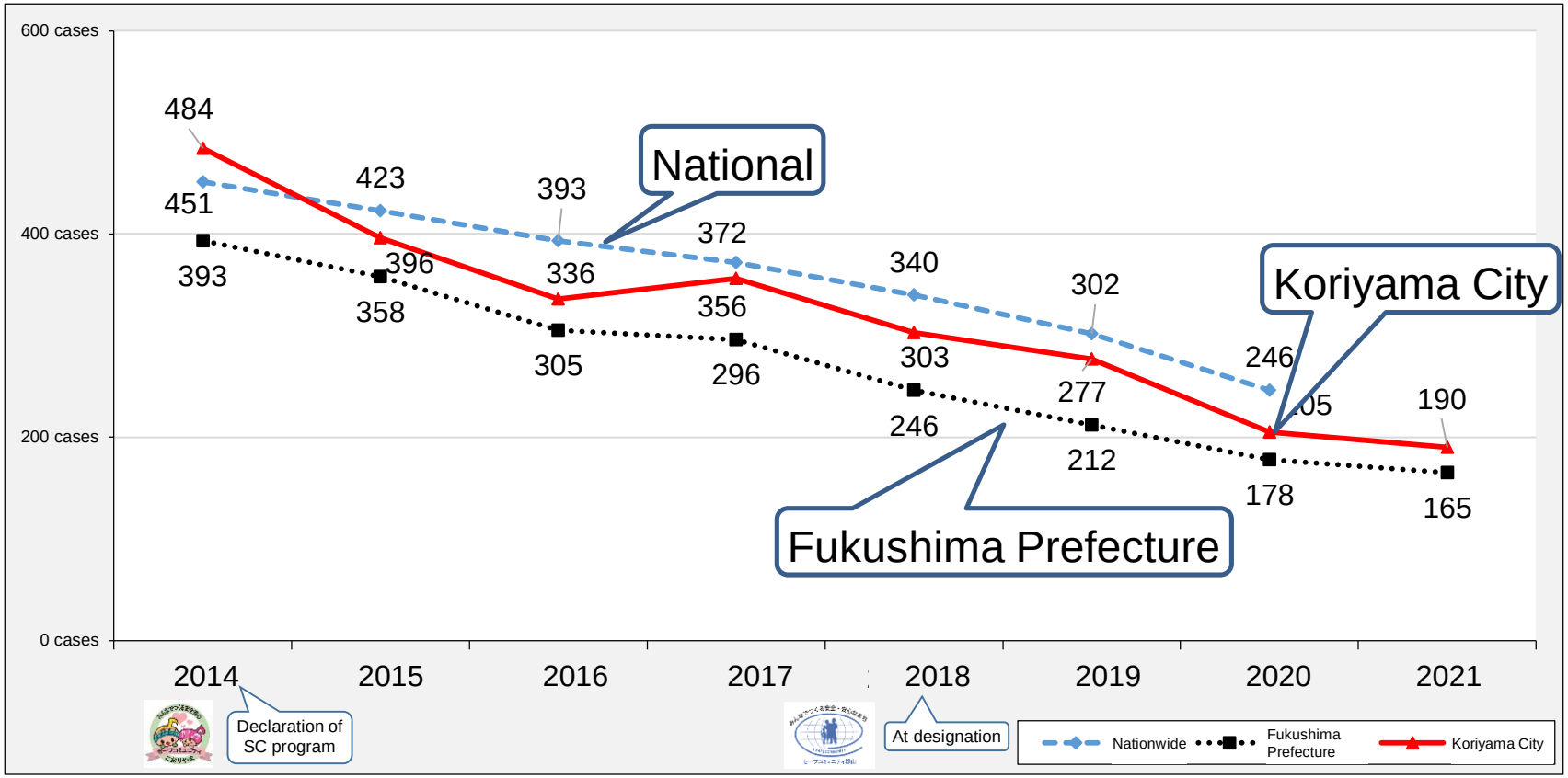
Traffic accidents in Koriyama City have been declining with 1,589 incidents in FY2014 to 620 incidents in FY2021. This is an approx. 61% reduction in seven years.

Identifying challenges from data (2)

Comparison with national and prefecture levels

Trends of number of traffic accidents (accidents resulting in injury or death) per 100,000 population

Fig. 3



Source: National Police Agency “White Papers”, Fukushima Prefecture Police Headquarters “Traffic White Papers” and “Overview of Traffic Accidents”

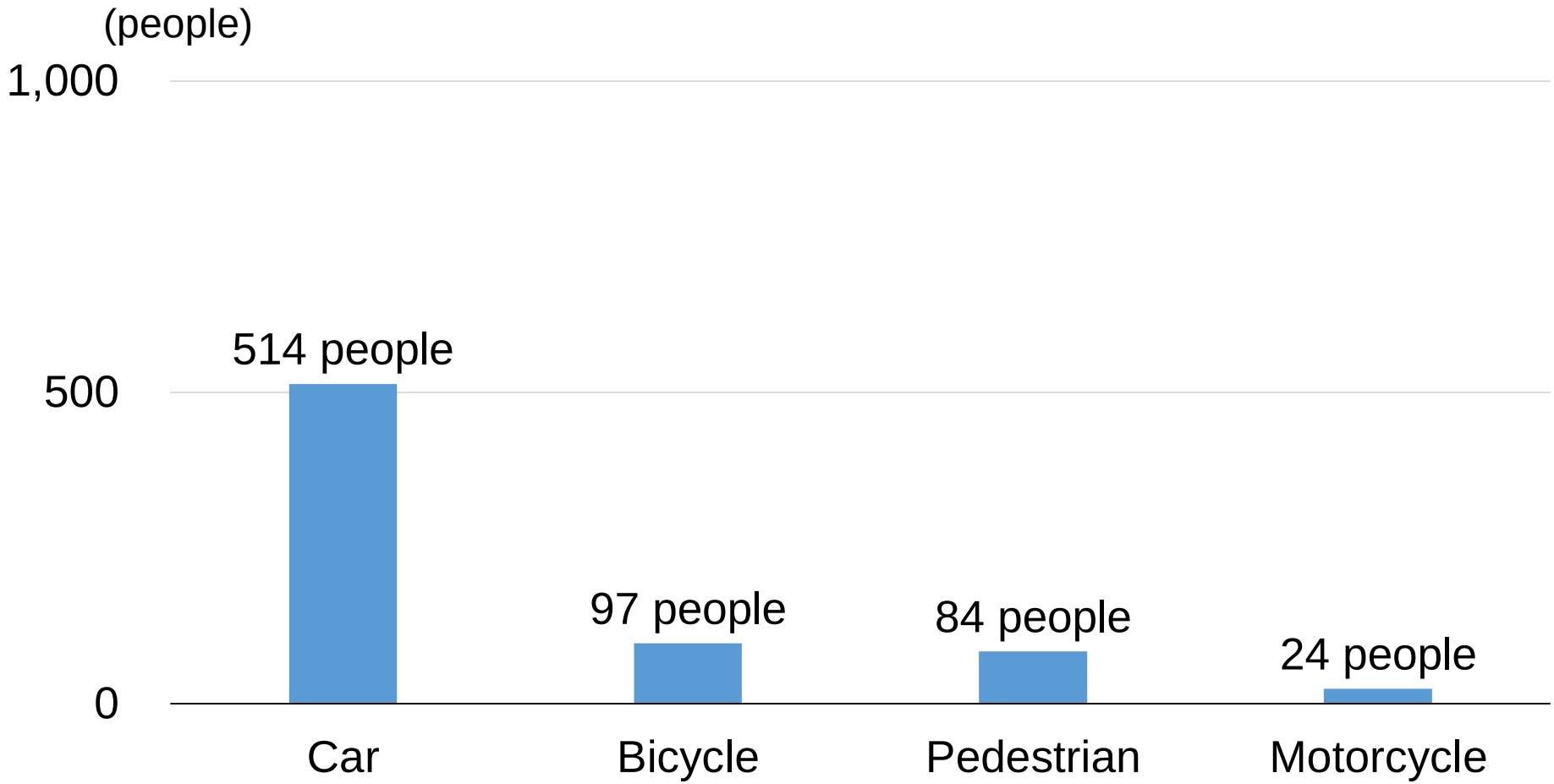
Until 2014, Koriyama had more accidents than national and Fukushima Prefecture. However, the number fell below the national level in 2015 and has continued downward.

Identifying challenges from data (3)

Number of deaths or injuries by the parties involved

Fig. 4

Koriyama City 2021



Source: “FY2021 (R3) White Paper on Traffic Safety” (Fukushima Prefecture, Fukushima Prefecture Police Headquarters)

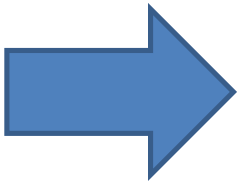
Characteristics of traffic accidents in Koriyama City

Fig. 5

No.	Characteristics	Within Koriyama Police Department jurisdiction	Fukushima Prefecture
1	Rate of **accidents within intersection**	58. 8%	55. 2%
2	Rate of **accidents by youth drivers**	13. 7%	12. 6%
3	Rate of **bicycle accidents**	15. 7%	8. 9%
4	Rate of **nighttime accidents**	29. 8%	25. 5%
5	Rate of **head-on collisions**	37. 0%	28. 0%

Source: National Police Agency, Koriyama Police Department "FY2021 White Paper on Traffic Safety", Characteristics of traffic accidents

Five Characteristics



We will focus on accidents within intersection and bicycle accidents

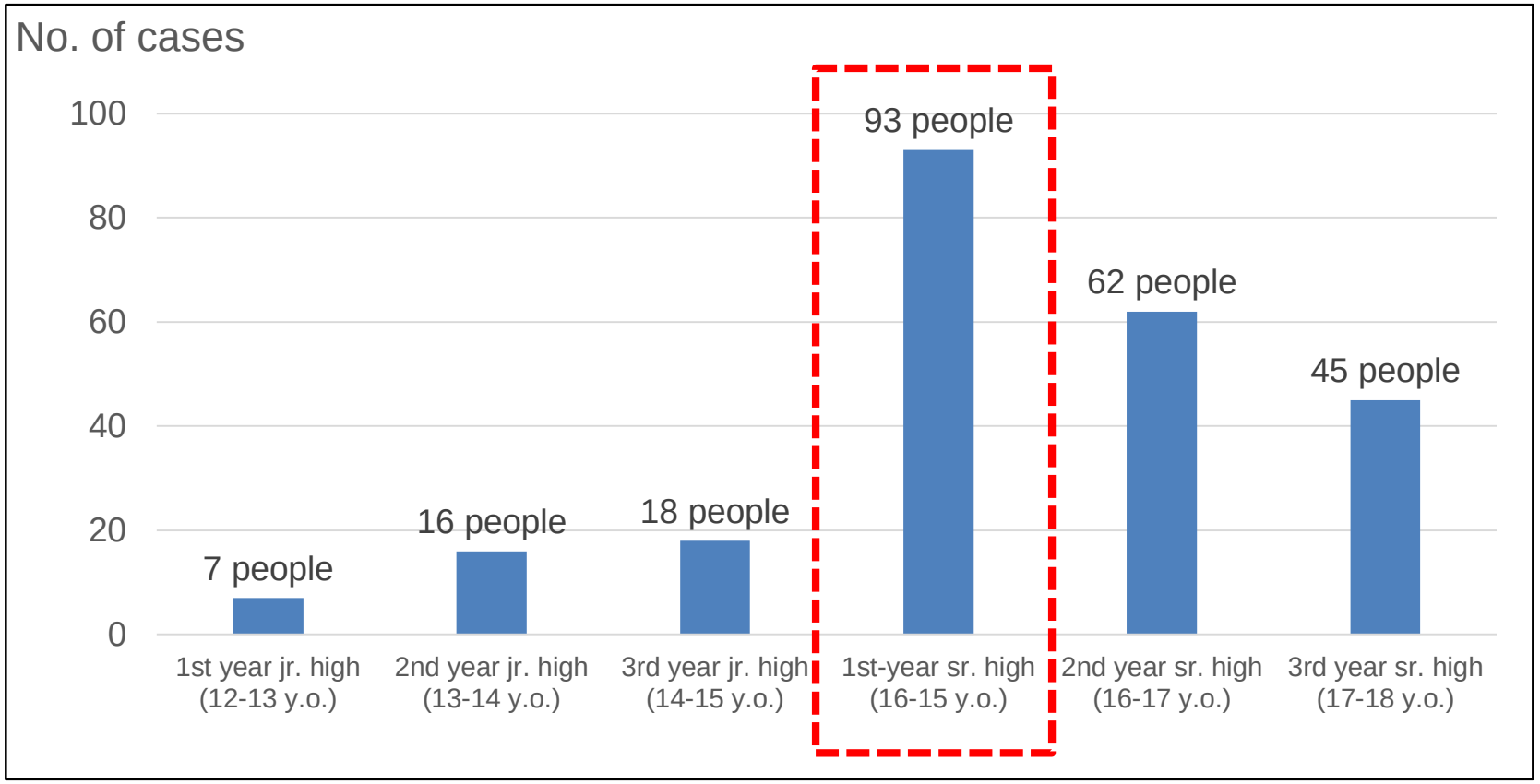
Identifying challenges from data (5)

Age groups with a high rate of bicycle accidents (Koriyama)

Accidents from junior high school to high school students

Total from January 1, 2017 (H29) to December 31, 2021 (R3)

Fig. 6



Source: Koriyama Police Department “Situation of traffic accidents (involving bicycles)”

The number increases greatly for 1st-year high school students and then gradually declines.

Main methods of commuting to school in Koriyama City　Junior high school -> Mostly walking

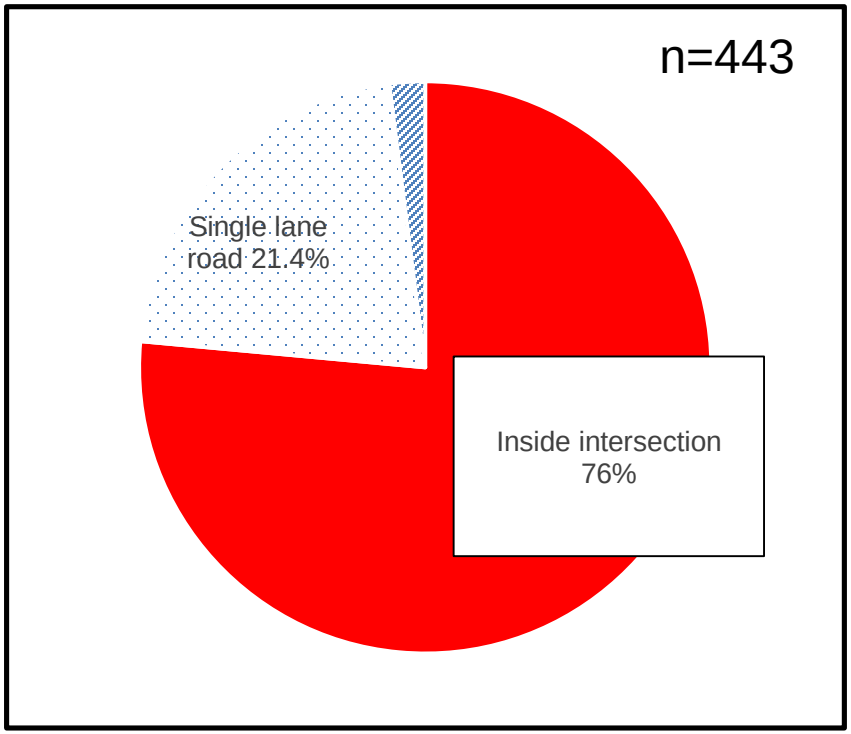
High school -> Many bicycles

Identifying challenges from data (6)

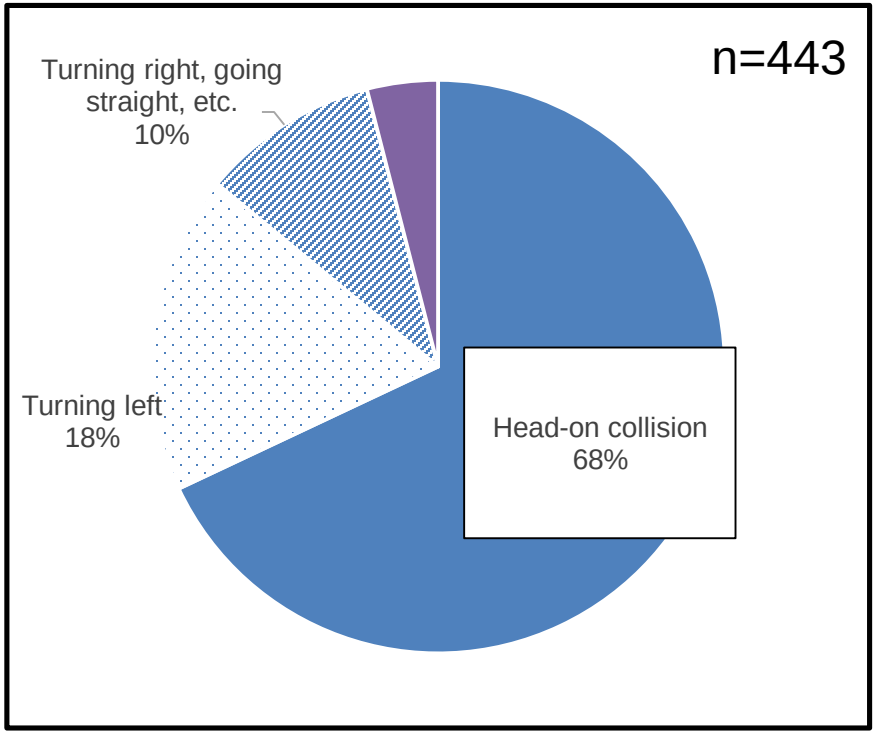
Characteristics of bicycle accidents involving junior high and senior high students (Koriyama City)

Fig. 7

Rate of bicycle accident occurrence by type of road



Rate of bicycle accident occurrence by type of accident



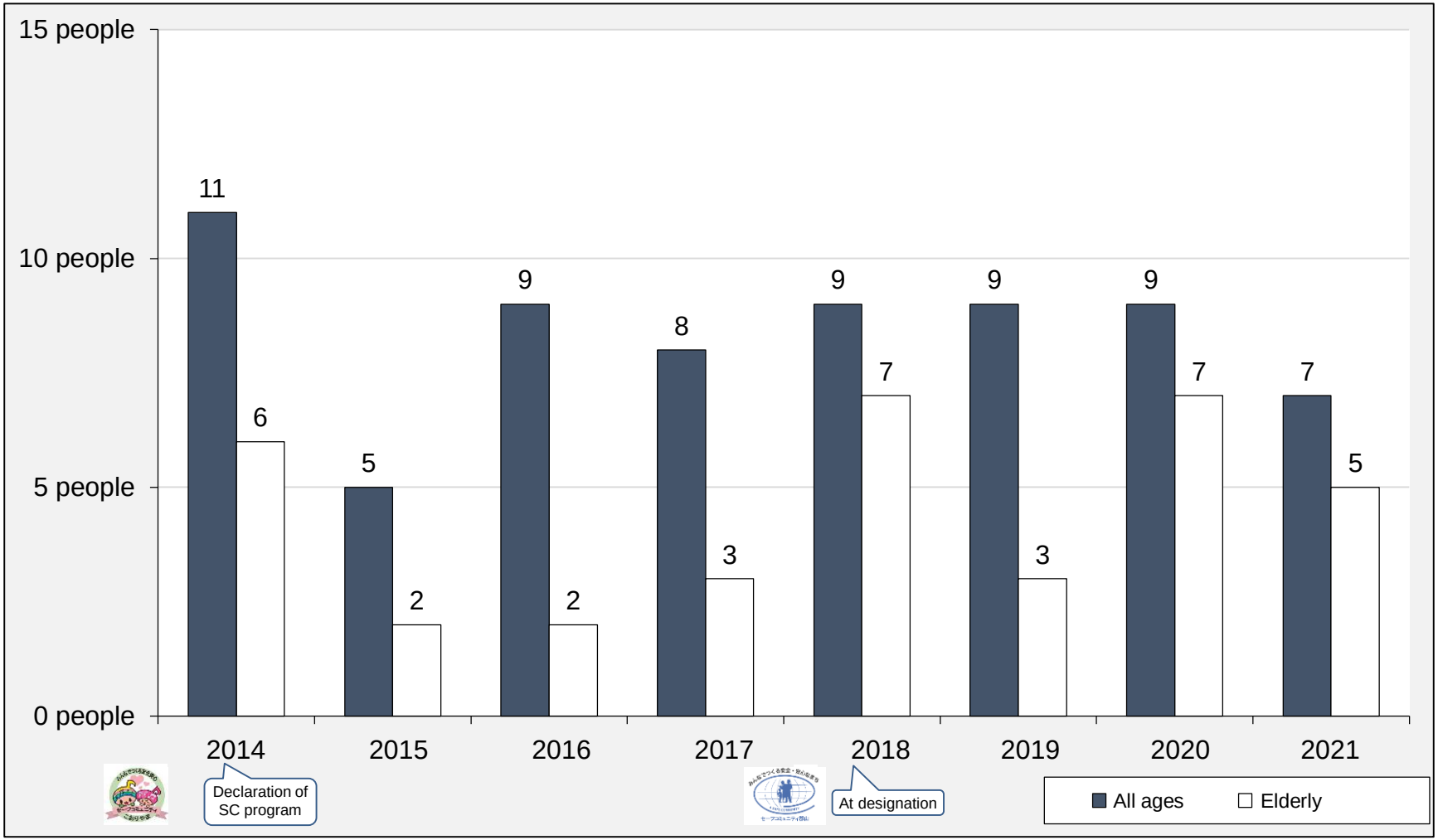
Source: Koriyama Police Department “Bicycle accidents involving junior high and senior high students” Tabulation from January 1, 2014 (H26) to December 31, 2021 (R3)

There are many accidents inside intersections.

There are many head-on collisions.

Changes in number of traffic deaths (Koriyama)

Approx. half of traffic accident deaths in Koriyama City involve the elderly. **Fig. 8**

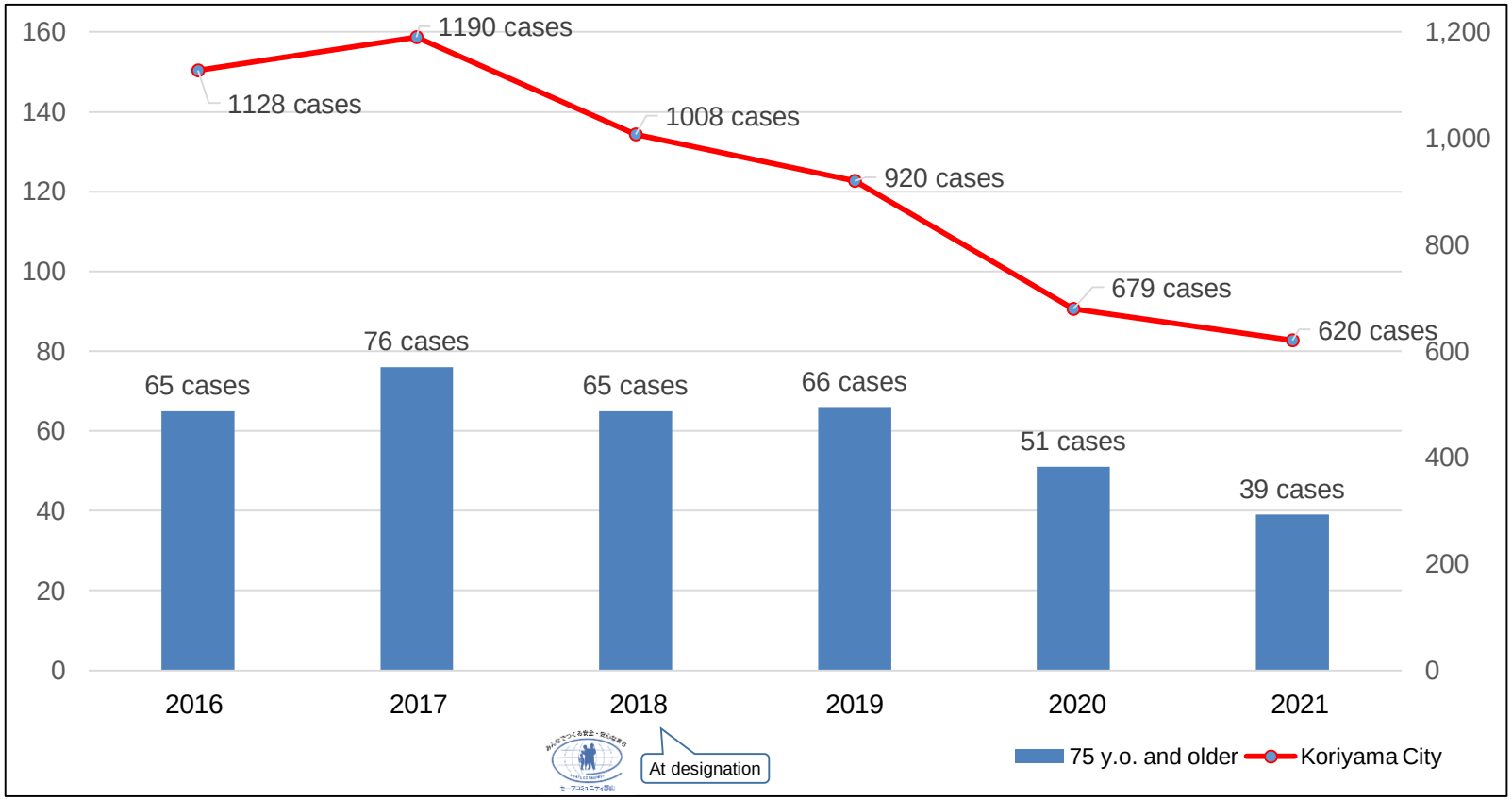


Source: Fukushima Prefecture Police Headquarters
“Traffic White Papers” and “Overview of Traffic Accidents”

Identifying challenges from data (8)

Fig. 9

Changes in traffic accidents (personal injury accidents) involving elderly drivers (aged 75 and over) in Koriyama City

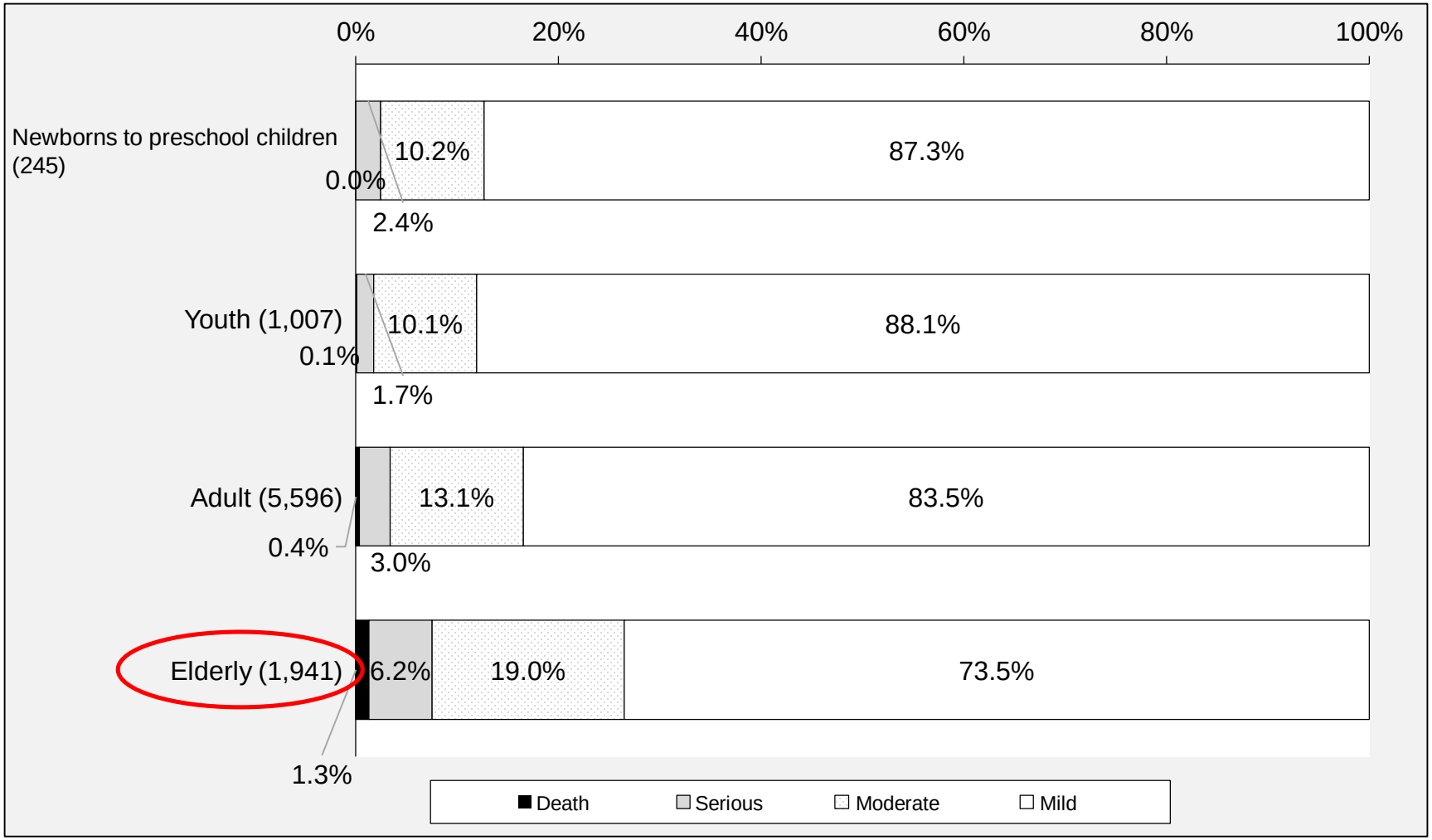


Source: Fukushima Prefecture Police Headquarters “Traffic White Papers” and “Overview of Traffic Accidents”

The percentage of traffic accidents involving elderly drivers in Koriyama City has remained steady at approx. 6% to 7% of all traffic accidents.

Severity of traffic accident injury requiring emergency transport in Koriyama City by age

Fig. 10

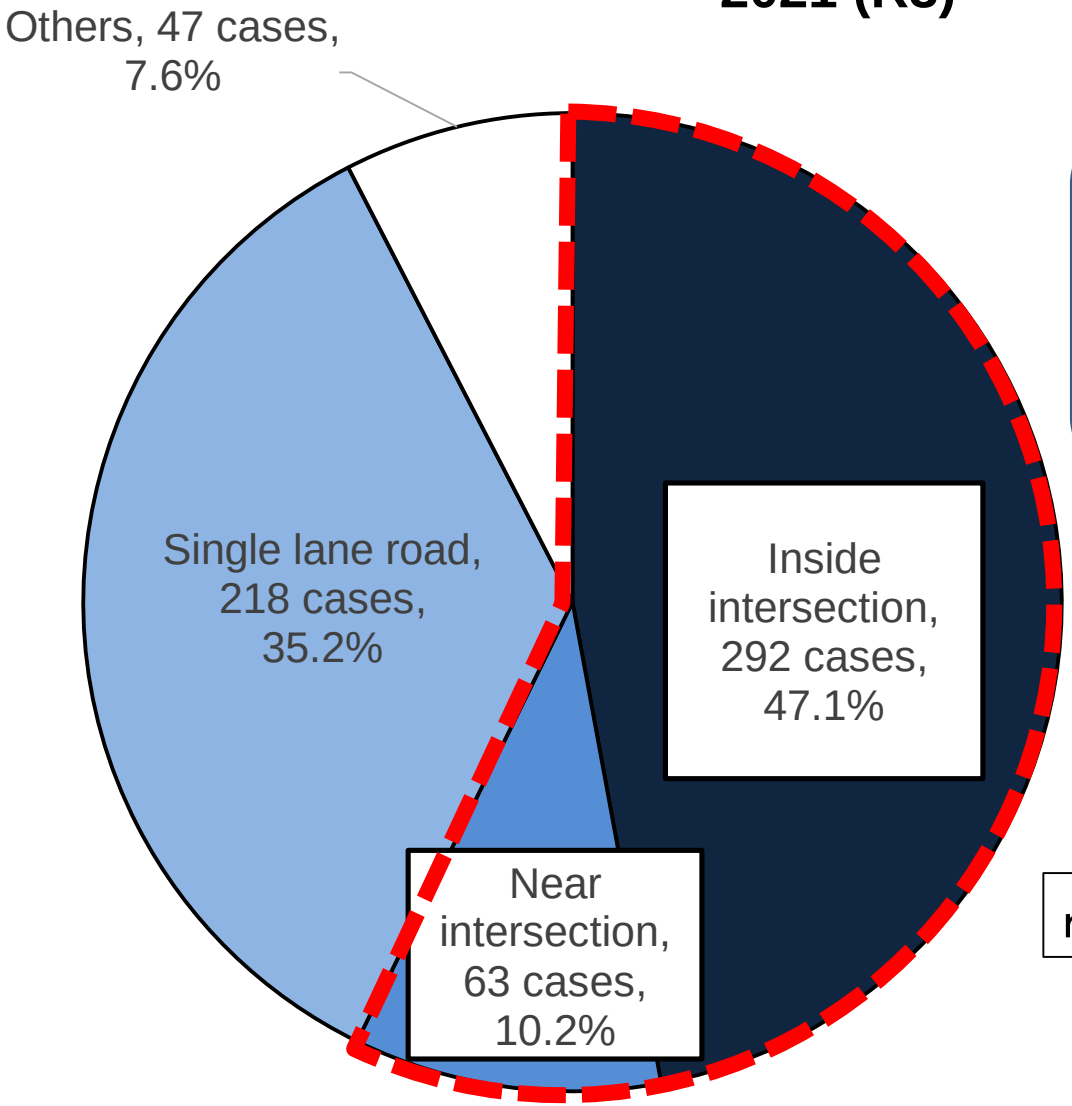


Source: Koriyama Regional Fire-Defense Union “「2014 to 2021 Emergency Transport Data (National tables)”

Identifying challenges from data (10)

Number of accidents in Koriyama City by road type 2021 (R3)

Fig. 11



n=650

The total of accidents inside the intersection and near the intersection. Approx. 57% (355 cases)

Source: Koriyama Police Department, Koriyama Kita Police Department

Priority challenges and priority targets based on data

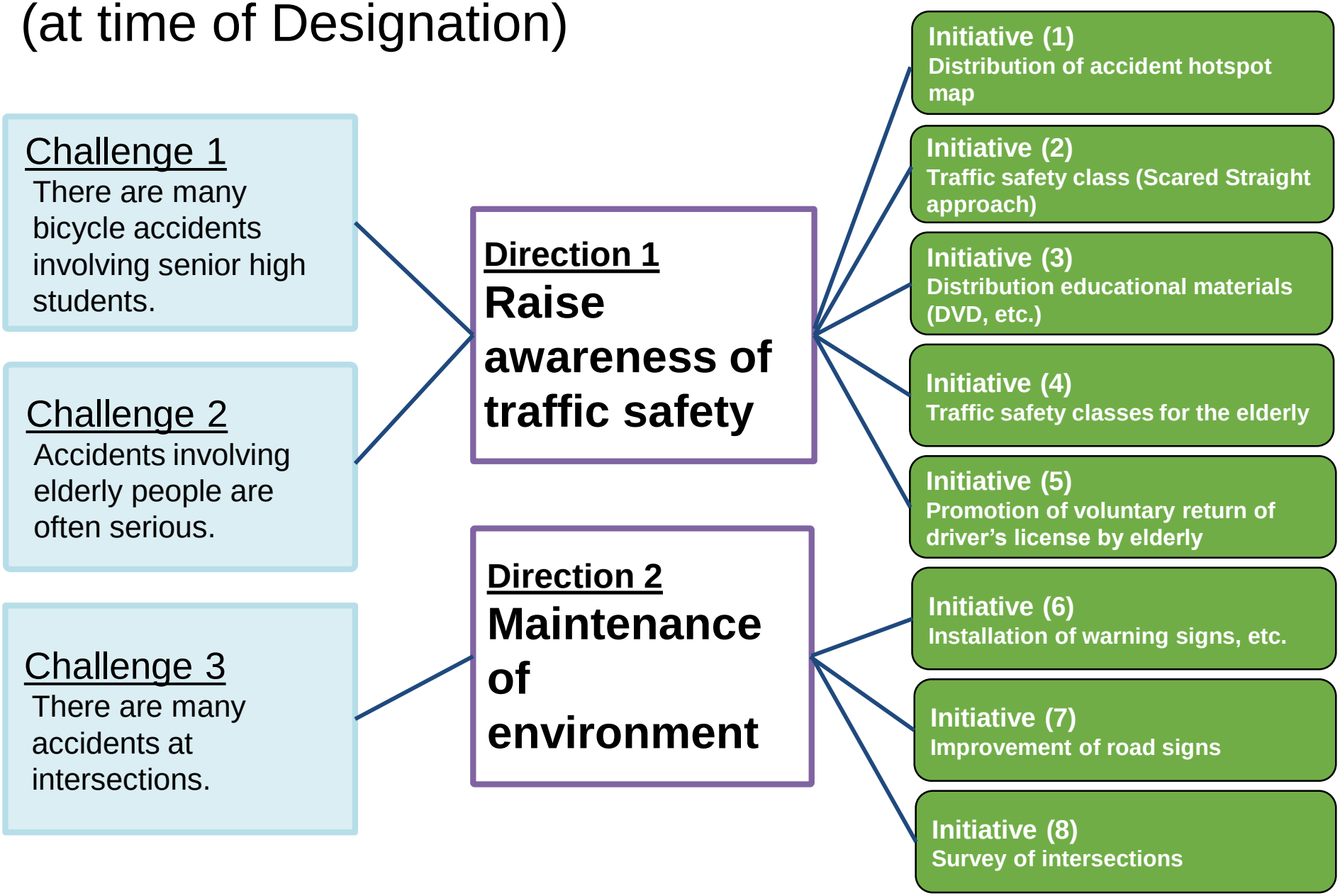
Challenge 1: There are many bicycle accidents involving senior high students.
(Source: Identifying challenges from data (5), (6))

Challenge 2: Accidents involving elderly people are often serious.
(Source: Identifying challenges from data (7), (8),(9))

Challenge 3: There are many accidents at intersections.
(Source: Identifying challenges from data (10))

Priority target: High school students, elderly, areas around intersections

Direction and initiatives for challenges (at time of Designation)



***SS method: Scared Straight (method to re-enact accident in front of students so that they visually see the hazards).**

Re-examination of activity indicators and performance indicators

Priority challenge (1)

Before changes

Priority challenges	Activity indicator	Short-term performance indicator	Mid-term performance indicator	Long-term performance indicator
There are many bicycle accidents involving senior high students.	Number of Traffic Accident Hotspot Intersection Map distributed	**Changes in high school students' traffic safety awareness**	Same as short-term performance indicator	Number of bicycle accidents involving senior high students
	Number of traffic safety classes (SS method) held			
	Number of educational materials (DVD on SS method, etc.) distributed			

Activity indicators that were difficult to conduct were changed to activity indicators that could be conducted, leading to changes in high school students' awareness and behavior.

Short-term and mid-term performance indicators changed after reviewing activity indicators (Performance of each activity is measured)

After changes

Priority challenges	Activity indicator	Short-term performance indicator	Mid-term performance indicator	Long-term performance indicator
There are many bicycle accidents involving senior high students.	Number of Traffic Accident Hotspot Intersection Map distributed (students)	**High school students' recognition of accident hotspots**	**Changes in high school students' traffic safety awareness**	Number of bicycle accidents involving senior high students
	Distribution of leaflets promoting traffic accident prevention and purchase of bicycle insurance	**High school students' awareness of the dangers of bicycle accidents**		
	Street campaigns promoting prevention of bicycle accidents involving high school students			

Re-examination of activity indicators and performance indicators

Priority challenge (2)

Before changes

Priority challenges	Activity indicator	Short-term performance indicator	Mid-term performance indicator	Long-term performance indicator
Accidents involving elderly people are often serious	Number of traffic safety classes for the elderly held	Changes in elderly person's traffic safety awareness	**Same as short-term performance indicator**	Number of traffic accidents involving the elderly
	Number of promotions to encourage elderly to voluntarily return driver's license	Number of driver's licenses voluntarily returned by the elderly		

Since nighttime accidents involving the elderly are increasing, the distribution of reflectors was added to the activity indicator

Short-term and mid-term performance indicators were added or changed after adding activity indicators (Performance of each activity is measured)

After changes

Priority challenges	Activity indicator	Short-term performance indicator	Mid-term performance indicator	Long-term performance indicator
Accidents involving elderly people are often serious	Number of traffic safety classes for the elderly held	Changes in elderly person's traffic safety awareness	**Changes in elderly person's traffic safety awareness**	Number of traffic accidents involving the elderly
	Number of promotions to encourage elderly to voluntarily return driver's license	Number of driver's licenses voluntarily returned by the elderly		
	Number of nighttime reflectors distributed to the elderly	**Rate of elderly who wear nighttime reflectors**		

Re-examination of activity indicators and performance indicators

Priority challenge (3)

Before changes

Priority challenges	Activity indicator	Short-term performance indicator	Mid-term performance indicator	Long-term performance indicator
There are many accidents at intersections.	**Number of caution signs, etc., installed**	**Number of traffic accident hotspots where the environment was improved**	**Same as short-term performance indicator**	Number of traffic accidents at intersections
	Number of road signs improved			
	Number of surveys conducted at intersections	**Number of improvements proposed to road administrators**		

Activity indicators that are difficult to conduct were canceled and distribution of "Traffic Accident Hotspot Map," conducted in priority challenge (1) was added (Distribution to companies)

Short-term and mid-term performance indicators changed after reviewing activity indicators (Performance of each activity is measured)

After changes

Priority challenges	Activity indicator	Short-term performance indicator	Mid-term performance indicator	Long-term performance indicator
There are many accidents at intersections.	Number of surveys conducted at intersections	**Number of improvements proposed to road administrators**	**Number of intersections improved following proposals**	Number of traffic accidents at intersections
	Number of Traffic Accident Hotspot Intersection Map distributed (companies)	**Citizens' recognition of accident hotspots**	**Changes in citizens' traffic safety awareness**	

Direction and initiatives for challenges (after review)

Challenge 1
There are many bicycle accidents involving senior high students.

Challenge 2
Accidents involving elderly people are often serious.

Challenge 3
There are many accidents at intersections.

Direction 1
Raise awareness of traffic safety

Direction 2
Maintenance of environment

Initiative (1)
Distribution of accident hotspot map
(High school students)

Initiative (2)
Distribution of accident prevention leaflet

Initiative (3)
Street campaigns on preventing bicycle accidents

Initiative (4)
Traffic safety classes for the elderly

Initiative (5)
Promotion of voluntary return of driver's license by elderly

Initiative (6)
Distribution of reflectors to the elderly

Initiative (7)
Survey of intersections

Initiative (8)
Distribution of accident hotspot map(companies)

Current initiatives: Nation, Prefecture, Police, City, Community level

		Nation, Prefecture, Police	City	Community level
Priority challenge (1) Bicycle accidents involving senior high students	Improve environment	Improvement of road environment		Inspection of school routes
	Rules and penalties	Enforcement of traffic laws and regulations		
	Education and awareness-promotion	Training for malicious offenders	Traffic safety class	Instruction of school route safety
Priority challenge (2) Accidents involving elderly people tend to be serious	Improve environment	Improvement of road environment Support car subsidy		Mimamori-watching activities
	Rules and penalties	Enforcement of traffic laws and regulations		
	Education and awareness-promotion	Training when renewing driver's license	Traffic safety class	Reminders within family
Priority challenge (3) There are many accidents at intersections.	Improve environment	Improvement of road environment		Understanding of dangerous spots
	Rules and penalties	Enforcement of traffic laws and regulations		
	Education and awareness-promotion	Training when renewing driver's license	Traffic safety class	Street campaigns

Traffic Safety Task Force Initiatives　Part 1

Priority challenge (1) (3)	There are many bicycle accidents involving senior high students. There are many accidents at intersections.
Direction (1)	Raise awareness of traffic safety
Priority target	High school students, around intersections
Initiative (1) (8)	Distribution of traffic safety hotspot maps (high school students) Distribution of traffic safety hotspot maps (companies)

Details

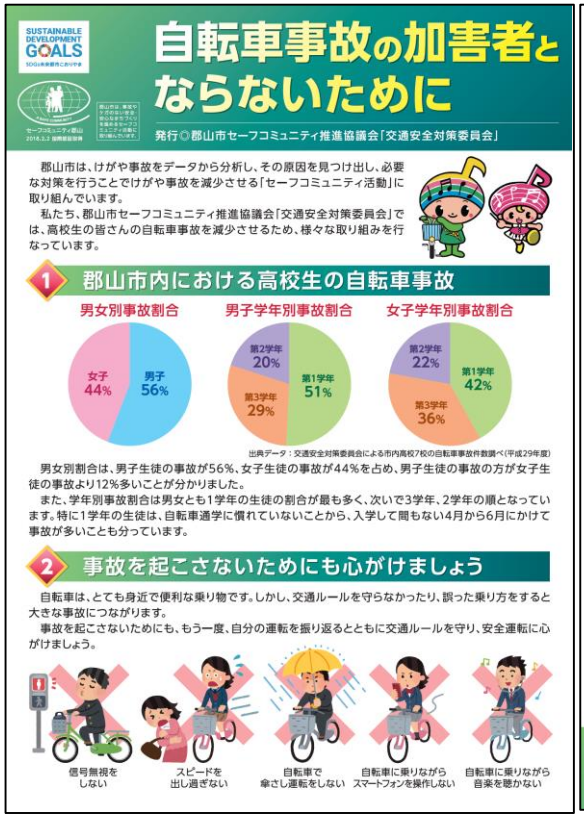
- Updated “Traffic Accident Hotspot Map” created in 2017.
- Collaborated with Koriyama Police Department to tabulate data on personal injuries between 2016 and 2019.
- Task Force reviewed and improved the design.

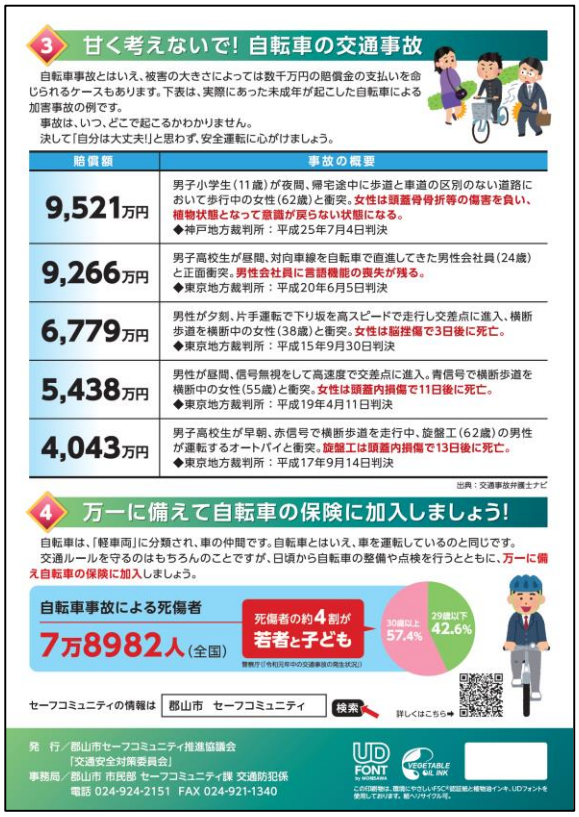
Results

- 1,000 copies were created and distributed to elementary, junior high, senior high, special needs schools, and companies in the City.
- A questionnaire was conducted at three high schools and one company in the City to understand the changes in the awareness and actions of the students and citizens after reading the map.

Traffic Safety Task Force Initiatives　Part 1

Priority challenge (1)	There are many bicycle accidents involving senior high students.
Direction (1)	Raise awareness of traffic safety
Priority target	High school students
Initiative (2)	Distribution of leaflets promoting traffic accident prevention and purchase of bicycle insurance





Details

- Provide information on the current status of bicycle accidents involving high school students in the City, rules for riding bicycles, and the importance of purchasing bicycle insurance.
- Promote the dangers of bicycle accidents to high school students.

Result

- 13,000 copies were created and distributed to elementary, junior high, senior high schools.
- A questionnaire was conducted at three high schools in the City.
- We were able to see the high school students' level of understanding.

Traffic Safety Task Force Initiatives　Part 1

Initiative (1)

Initiative (2)

Conduct questionnaire

Did the high school students' behavior or awareness change?

Photo:　Entrance at cooperating school (Koriyama Higashi Highs School)


生徒対象用

【セーフコミュニティ交通安全対策委員会】
交通事故防止に関するアンケートに
ご協力ください

郡山市では、けがや事故のない安全・安心なまちづくり セーフコミュニティ※を推進しています。
その対策の１つである「交通安全対策」については、高校生の自転車による交通事故防止のため、「交通事故多発地点マップ」や「自転車事故防止及び自転車保険加入促進に向けたチラシ」を作成し、各学校に配布しました。
自転車を運転する皆さんの現状と、校内に掲示された「マップ」や「チラシ」をご覧になった感想などを伺い、今後の活動と対策の改善に繋げていきたいと思いますので、ぜひアンケートにご協力ください。

★アンケートは簡単電子申請で回答をお願いします。
アンケート締切日：令和３年９月１３日（月）

「郡山市かんたん電子申請システム」によるアンケート
URL：https://www.task-asp.net/cu/eg/lar072036.task?app=202100297

★マップやチラシは、校内に掲示しております。

交通事故多発地点マップ　自転車事故防止啓発チラシ（表）　（裏）

※セーフコミュニティとは・・・
セーフコミュニティとは、「けがや事故は、原因を究明することで予防できる」という理念のもと、市民の皆さんと行政や関係機関、団体、組織等が協働で安全・安心に暮らすことができるまちづくりに取り組む地域のことです。
郡山市は 2018 年２月に国際認証と取得し、2023 年の再認証に向けて活動を継続しています。

みんなでつくる安全・安心なまち
セーフコミュニティ郡山

QR Code
Students responded from their cellphones

"Traffic accident hotspot map" and "Leaflet promoting traffic accident prevention and purchase of bicycle insurance" posted at school entrances

To verify the effect, a questionnaire was conducted on the Internet.

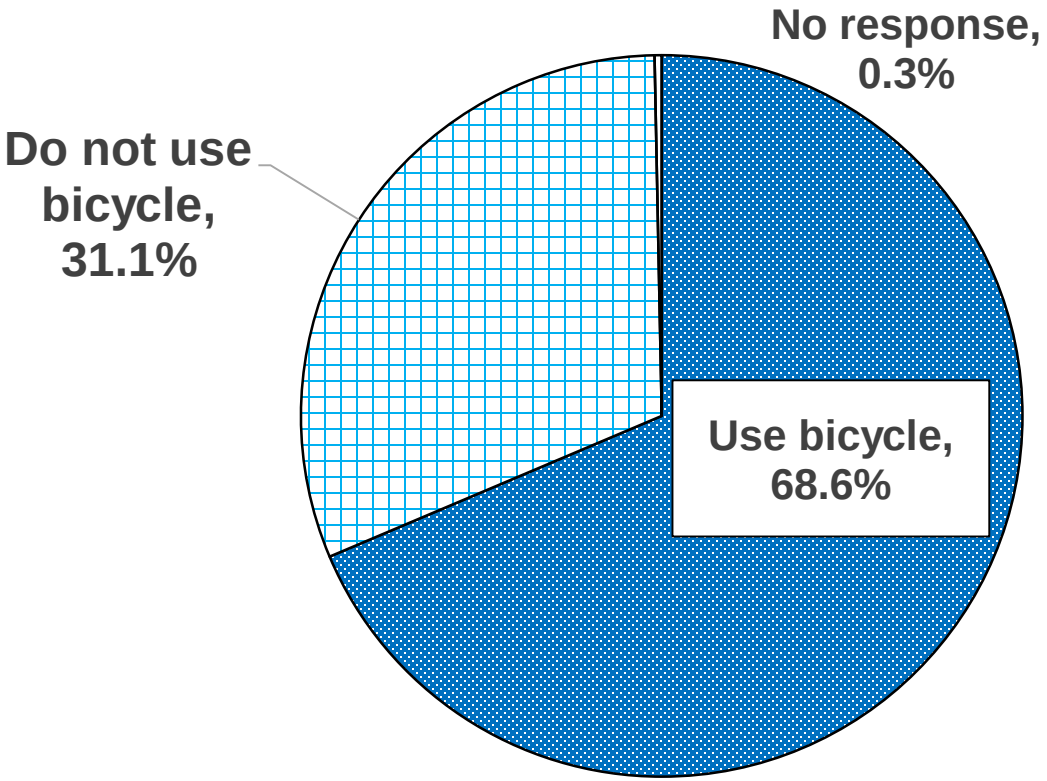
Schools cooperating with questionnaire
- **Koriyama Higashi High School**
- **Koriyama Commercial High School**
- **Nichidai Touhoku High School**

Results of Traffic Safety Task Force initiatives (1) and (2)

Fig. 12

Questionnaire results Part 1 **Use of bicycle to commute to school**

Respondents: High school students commuting within Koriyama City (3 schools, 1,568 students)



Approx. 70% of 1,076 students use their bicycle

Source: Traffic Safety Task Force "Questionnaire on preventing traffic accidents (High school students) 2022"

Results of Traffic Safety Task Force initiatives (1) and (2)

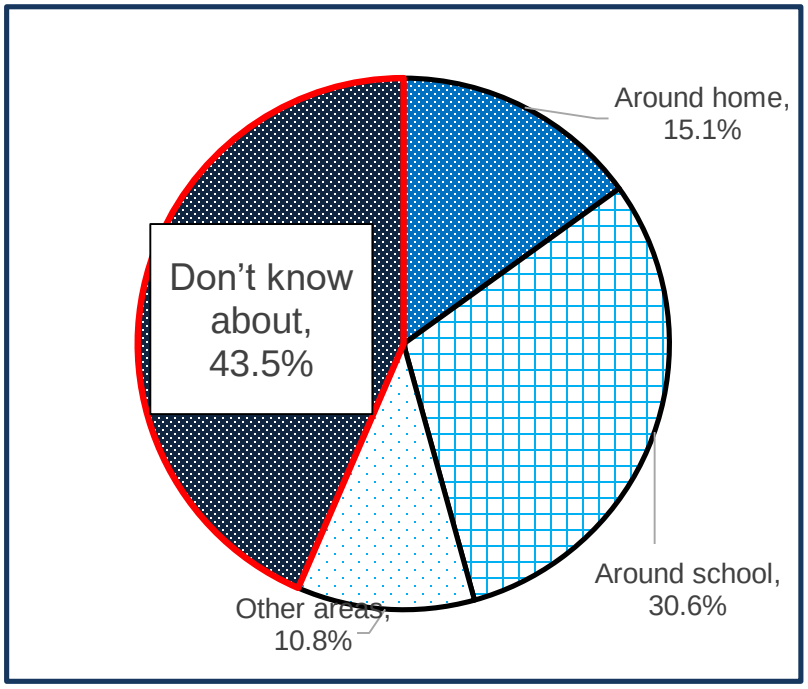
Questionnaire results Part 2 **Awareness of traffic accidents**

Did the high school students' behavior or awareness change?

Fig. 13

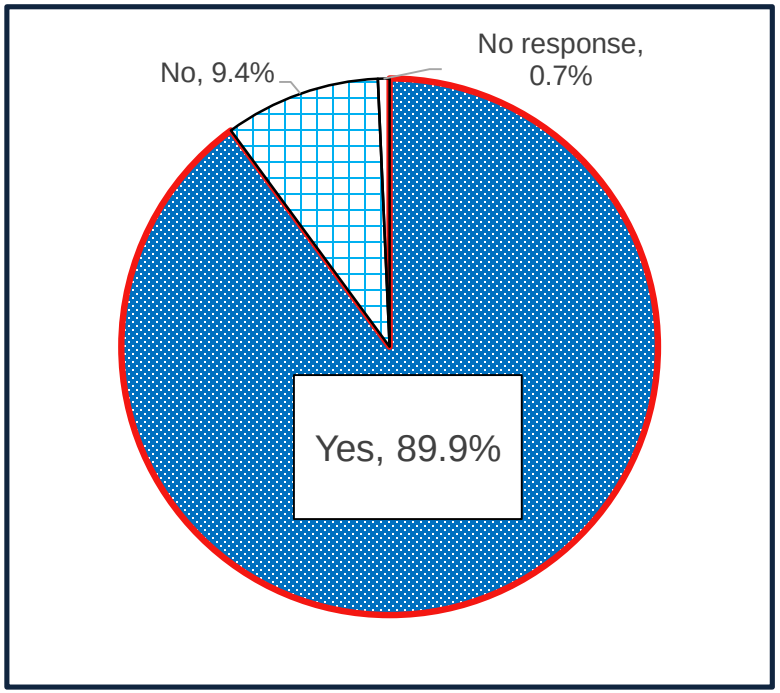
Approx. 90% of the students who looked at the map recognized the intersections with the most accidents.

Before looking at accident hotspot map



Q. Select the accident hotspots that you know about.

After looking at accident hotspot map



Q. Did you understand intersections with many accidents looking at the "Traffic accident hotspot map?"

Source: Traffic Safety Task Force "Questionnaire on preventing traffic accidents (High school students) 2022"

Results of Traffic Safety Task Force initiatives (1) and (2)

Did the high school students' behavior or awareness change?

Questionnaire results Part 3
Awareness of dangers of bicycle accidents

Q. Did your awareness of the dangers of bicycle accidents increased after reading the leaflet?

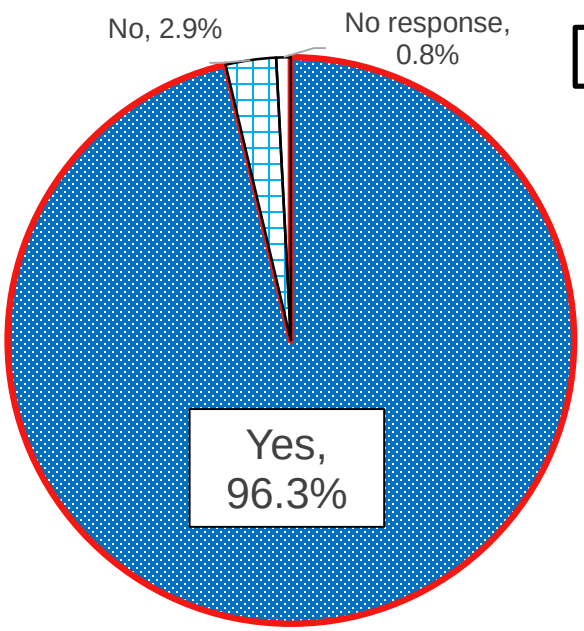


Fig. 14

Approx. 90% of the students who read the leaflet said their awareness of the dangers of bicycle accidents increased.

Questionnaire results Part 4
Changes in awareness of traffic safety

Q. Did your awareness of traffic accidents increase after learning about accident hotspots?

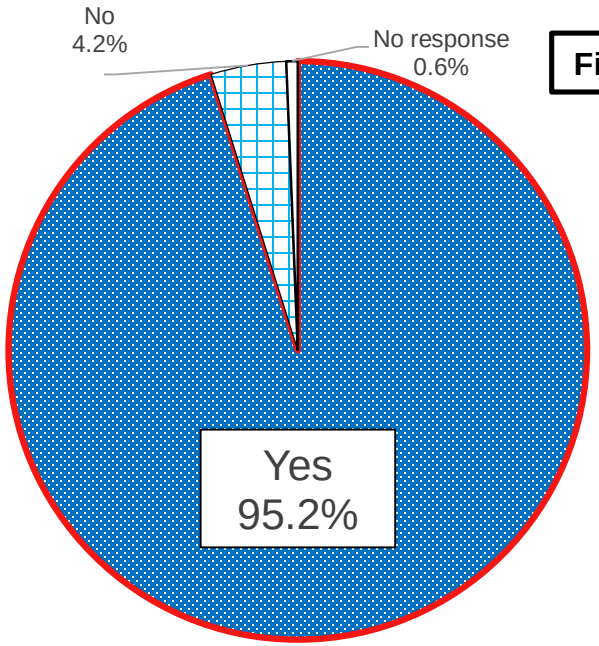


Fig. 15

Approx. 90% of the students who looked at the map said their awareness of traffic accidents increased.

Source: Traffic Safety Task Force "Questionnaire on preventing traffic accidents (High school students) 2022"

Traffic Safety Task Force Initiatives　Part 1

Priority challenge (1)	There are many bicycle accidents involving senior high students.
Direction (1)	Raise awareness of traffic safety
Priority target	High school students
Initiative (3)	Street campaigns promoting prevention of bicycle accidents involving high school students

Details

- During the Traffic Safety Campaign period, the Police and companies cooperated with street campaigns targeting high school students who ride their bicycle to school
- Instruction was given on safely riding bicycles, and leaflets calling for accident prevention were distributed

Participati

- Traffic Safety Task Force
- Police
- Koriyama District Traffic Safety Association
- Five insurance companies that have signed comprehensive cooperation agreements with Koriyama City
- Koriyama City

Activity results and evaluation

Priority challenge (1): There are many bicycle accidents involving senior high students

	Details of indicator [Measurement method]	Unit	2017	2018	2019	2020	2021
Results of activities	Number of Traffic Accident Hotspot Intersection Map distributed (students)	copies	1,245	940	—	194	25
	Distribution of leaflets promoting traffic accident prevention and purchase of bicycle insurance **New**	copies	—	12,550	12,400	12,300	12,200
	Street campaigns promoting prevention of bicycle accidents involving high school students **New**	times	—	—	—	1	1
Short-term performance indicator	High school students' recognition of accident hotspots **New**	%	—	—	—	—	84.5
	High school students' awareness of the dangers of bicycle accidents **New**	%	—	—	—	—	95.5
Mid-term performance indicator	Changes in high school students' traffic safety awareness	%	—	—	—	—	93.8
Long-term performance indicator	Number of traffic accidents involving high school students	people	60	44	48	24	24

Traffic Safety Task Force Initiatives　Part 2

Priority challenge (2)	Accidents involving elderly people are often serious
Direction (1)	Raise awareness of traffic safety
Target	Elderly
Initiative (4)	Traffic safety classes for the elderly

Details

• Traffic safety classes for the elderly are held in cooperate with the Police.

Result

2017　9 sessions
2018　10 sessions
2019　8 sessions
2020　0 sessions
(because of Covid-19 pandemic)
2021　0 sessions
(because of Covid-19 pandemic)

*The class organizers are planning to conduct a questionnaire of the participants

Traffic Safety Task Force Initiatives　Part 2

Priority challenge (2)	Accidents involving elderly people are often serious
Direction (1)	Raise awareness of traffic safety
Target	Elderly
Initiative (5)	Promotion of voluntary return of driver's license by elderly

Details

- A leaflet giving an overview of the policy for voluntary return of driver's license and details for joining a traffic safety was created and distributed.

Result

- 13,000 copies created
- Distributed to the elderly at senior citizen clubs

Traffic Safety Task Force Initiatives　Part 2

Anticipated effect if elderly people voluntarily returned their driver's licenses increase

- **Elderly drivers who are driving while uncertain will decrease, thereby leading to a decrease in traffic accidents.**
- **Family members of elderly people who have returned their driver's people will feel more relieved.**
- **Opportunities for elderly people to think about the voluntary return policy will increase.**

As a result ...

Elderly people (ages 75 and older) who voluntarily returned their driver's licenses

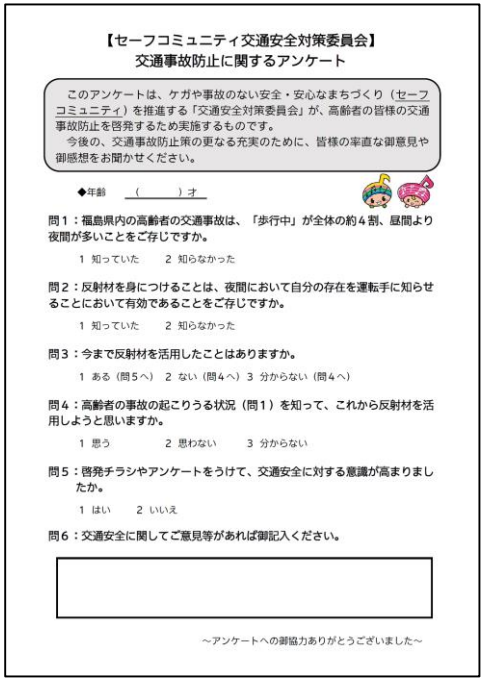
[Total from August 1, 2017 to August 31, 2022] 3,726people

Of which, people who received bus/taxi tickets.

[Total from August 1, 2017 to August 31, 2022] 3,254 people

Traffic Safety Task Force Initiatives　Part 2

Priority challenge (2)	Accidents involving elderly people are often serious
Direction (1)	Raise awareness of traffic safety
Target	Elderly
Initiative (6)	Distribution of nighttime reflectors to the elderly



【セーフコミュニティ交通安全対策委員会】
交通事故防止に関するアンケート

このアンケートは、ケガや事故のない安全・安心なまちづくり（セーフコミュニティ）を推進する「交通安全対策委員会」が、高齢者の皆様の交通事故防止を啓発するため実施するものです。
今後の、交通事故防止策の更なる充実のために、皆様の率直な御意見や御感想をお聞かせください。

◆年齢　（　　）才

問１：福島県内の高齢者の交通事故は、「歩行中」が全体の約４割、昼間より夜間が多いことをご存じですか。
1 知っていた　2 知らなかった

問２：反射材を身につけることは、夜間において自分の存在を運転手に知らせることにおいて有効であることをご存じですか。
1 知っていた　2 知らなかった

問３：今まで反射材を活用したことはありますか。
1 ある（問５へ）　2 ない（問４へ）　3 分からない（問４へ）

問４：高齢者の事故の起こりうる状況（問１）を知って、これから反射材を活用しようと思いますか。
1 思う　2 思わない　3 分からない

問５：啓発チラシやアンケートをうけて、交通安全に対する意識が高まりましたか。
1 はい　2 いいえ

問６：交通安全に関してご意見等があれば御記入ください。

～アンケートへの御協力ありがとうございました～

Details

- Reflectors and a leaflet on traffic safety for the elderly were distributed to elderly participating in the Iki-Iki Centenarian Exercises (Collaboration to Safety for Elderly Task Force)

Result

- May 2022　Exercise participants　35 people
- A questionnaire was conducted on the spot to check for changes in the elderly behavior and awareness (Questionnaire for the elderly was conducted don paper)

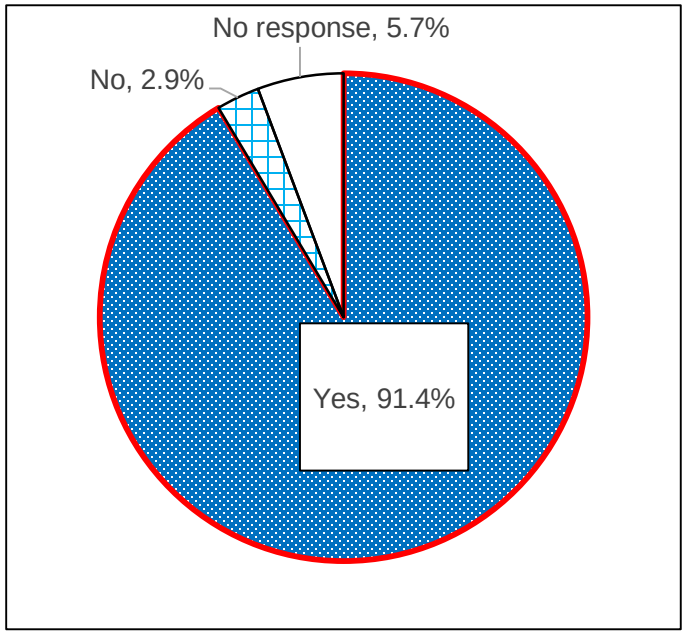
Results of Traffic Safety Task Force initiatives (5) and (6)

Initiative (5) Conduct questionnaire

Have the behavior and consciousness of the elderly changed?

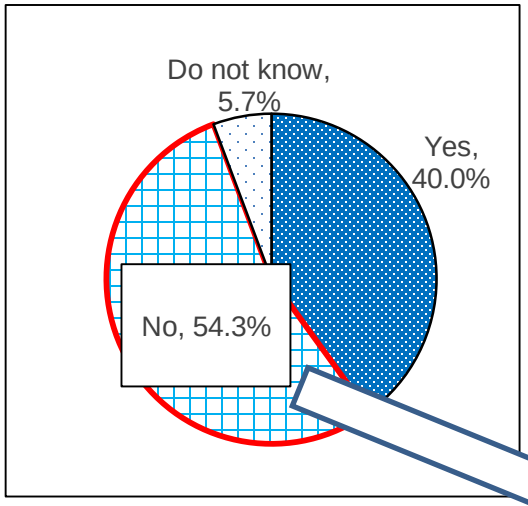
Fig. 16

Questionnaire results Part 1
Awareness of traffic accidents

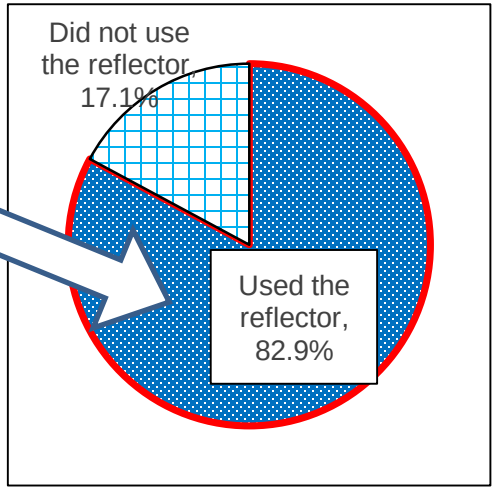


Q. Did your awareness of traffic safety change after reading the leaflet or taking part in the questionnaire?

Questionnaire results Part 2
Use of reflectors



Q. Have you used the reflector?



Q. Did you affix the reflector you received?

Source: Traffic Safety Task Force
"Questionnaire on preventing traffic accidents (Elderly) 2022"

Activity results and evaluation

Priority challenge (2): Accidents involving elderly people are often serious

	Details of indicator [Measurement method]	Unit	2017	2018	2019	2020	2021
Results of activities	Number of traffic safety classes for the elderly held	times	9	10	8	0	0
	Number of promotions to encourage elderly to voluntarily return driver's license (Number of leaflets distributed)	copies	—	13,000	13,000	13,000	13,000
	Number of nighttime reflectors distributed to the elderly **New**	copies	—	—	—	—	18
Short-term performance indicator	Changes in elderly person's traffic safety awareness	Place	—	—	—	—	100
	Number of driver's licenses voluntarily returned by the elderly	people	359	856	1,197	1,073	1,024
	Rate of elderly who wear nighttime reflectors **New**	%	—	—	—	—	88
Mid-term performance indicator	Changes in elderly person's traffic safety awareness	%	—	—	—	—	100
Long-term performance indicator	Number of traffic accidents involving the elderly (White paper on traffic, etc.)	cases	229	198	200	155	143

Traffic Safety Task Force Initiatives　Part 3

Priority challenge (3)	There are many accidents at intersections.
Direction (2)	Maintenance of environment
Target	Around intersections
Initiative (7)	Survey of intersections

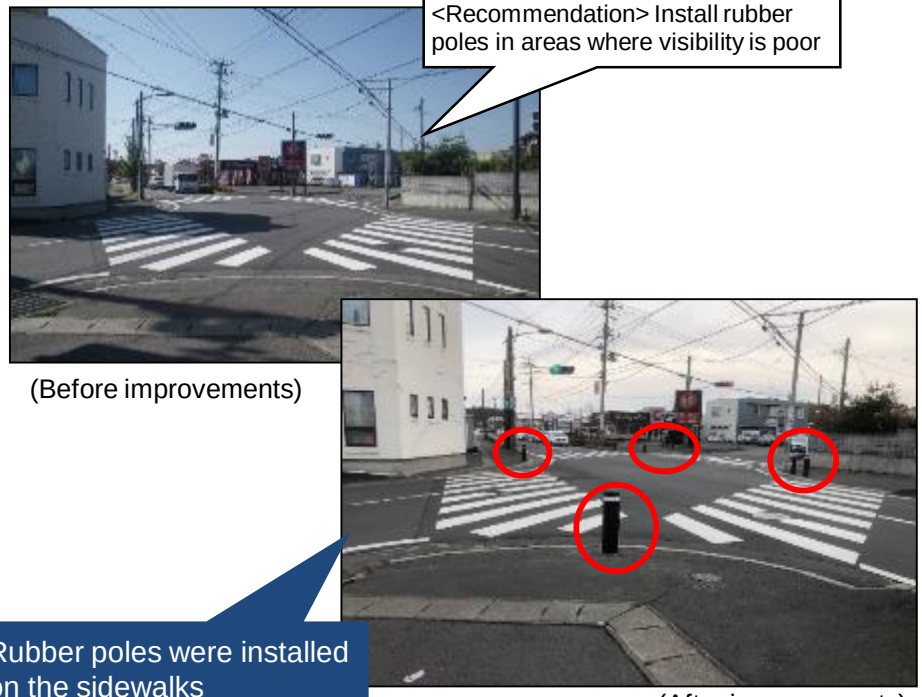
Details

・Survey two intersections with frequent traffic accidents on the traffic accident hotspot map and recommend improvements to the road administrator.

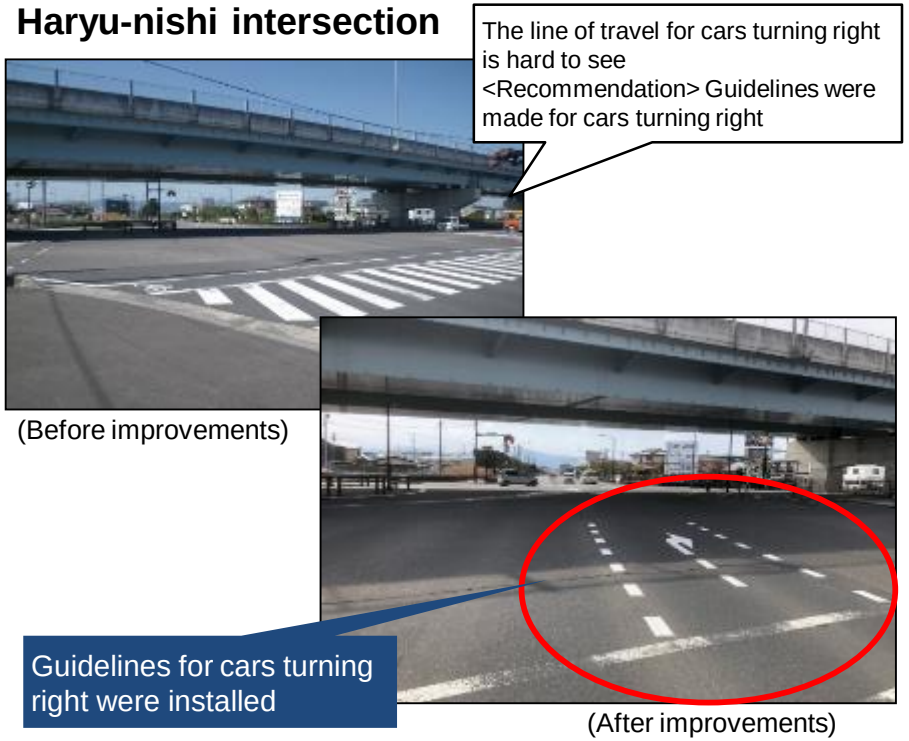
Results

・Repair work was carried out at the Kitada and Haryu-nishi intersections based on the recommendations.

Kitada intersection



Haryu-nishi intersection



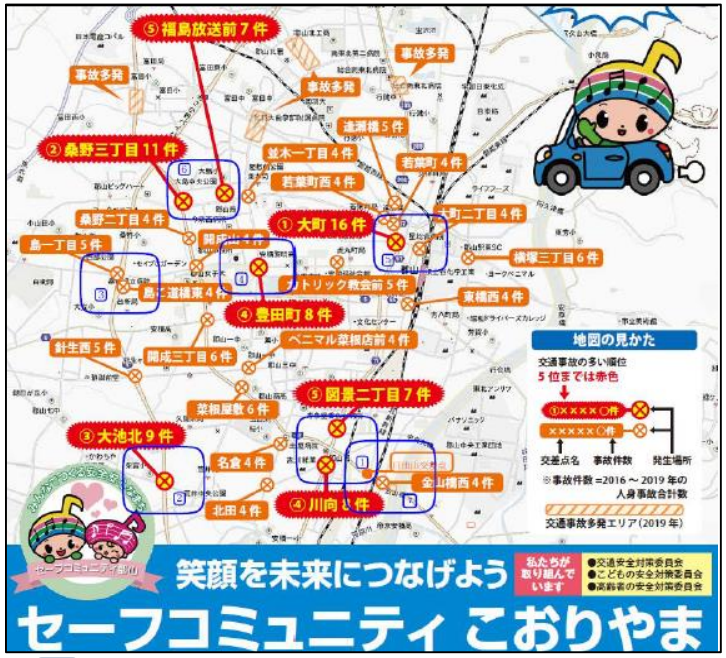
Activity results and evaluation

Priority challenge (3): There are many accidents at intersections.

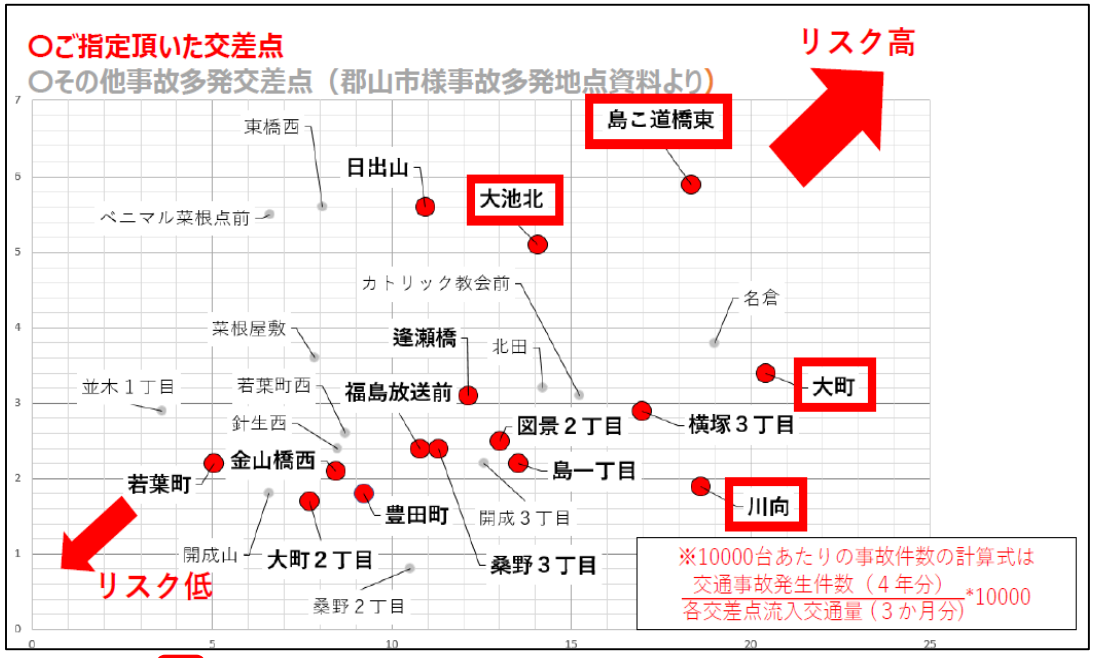
	Details of indicator [Measurement method]	Unit	2017	2018	2019	2020	2021
Results of activities	Number of intersections investigated	Place	5	-	-	-	2
	Number of Traffic Accident Hotspot Intersection Map distributed (companies) **New**	copies	-	-	-	-	2
Short-term performance indicator	Number of improvements proposed to road administrators	Place	-	-	-	-	2
	Citizens' recognition of accident hotspots **New**	%	-	-	-	-	90
Mid-term performance indicator	Number of intersections improved following proposals	Place	-	-	-	-	2
	Changes in citizens' traffic safety awareness **New**	%	-	-	-	-	100
Long-term performance indicator	Number of traffic accidents at intersections (White paper on traffic, etc.)	cases	680	583	594	405	355

New initiatives (collaboration with Toyota Motors)

- Toyota Motor Corporation and Koriyama City started a collaboration to reduce traffic accidents in July 2021.
- Four high-risk intersections were selected from the traffic accident hotspot map.
- Big data is used to analyze accident factors and study countermeasures.



→ Intersections with many accidents that Koriyama City requested to be surveyed.



→ Intersections that were considered higher risk out of the intersections requested by Koriyama City.

We decided to visualize high-risk intersections using accident data from Koriyama City and Toyota Motor Corporation's big data on vehicles, and analyze the accident factors at the four intersections with higher risk.

New initiatives (collaboration with Toyota Motors)

- A joint field survey of four high-risk intersections was conducted with Toyota Motor Corporation and the Traffic Safety Task Force.

Oike-Kita intersection

Omachi intersection

Kawamukai intersection

Shima overpass intersection

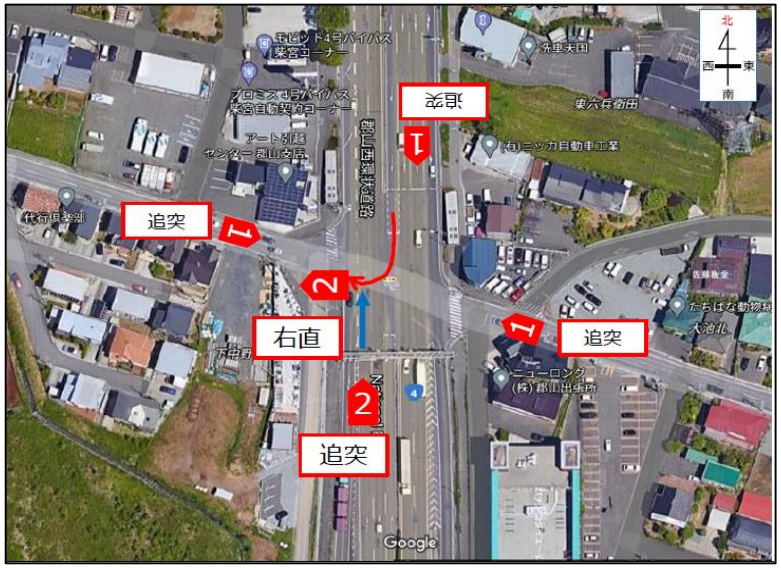
We were able to analyze accident factors more accurately by comparing the current situation (road shape and traffic congestion/stagnation of vehicles traveling through) at the actual traffic accident hotspot intersection with the details of accidents at each intersection and Toyota Motor's big data.

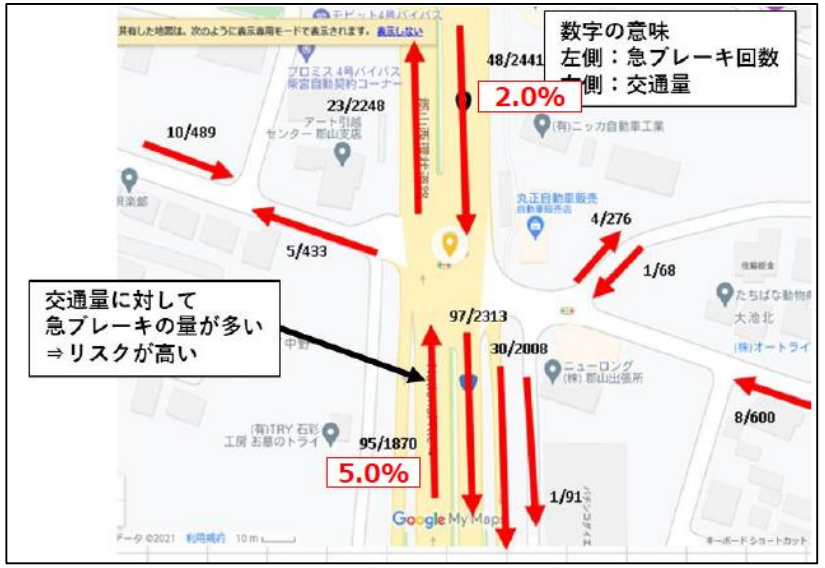
New initiatives (collaboration with Toyota Motors)

・Consider measures to reduce accidents at each intersection based on the field survey results, etc.

（Ex.: Oike-kita intersection)

<Field survey> The road has a semi-cylindrical shape with an intersection at the end of an uphill and downhill slope.





<Findings from road shape details>

・There are many rear-end collisions on the northbound downhill slope.
  ⇒ It has been suggested that the semi-cylindrical road shape may be a factor.
・There are many head-on collisions.
  ⇒ This is caused by the delay of vehicles turning right from the city road to the national route.

<Findings from various data>

・The amount of emergency braking relative to traffic volume was calculated.
  ⇒ The rate of emergency braking for northbound vehicles is clearly higher.
  ⇒ There is a high risk of rear-end collisions and collisions between right-turning vehicles and vehicles traveling straight ahead.

<Countermeasures>
・Since the road is semi-cylindrical, study measures to improve forward visibility.
・Change the number of seconds of the traffic signal on the city street side to move the right-turning vehicles that are delayed in the intersection.
  ⇒ Simulate how the traffic flow will change if the length of the yellow signal is extended.

Current goals and future directions

Priority challenges	Current achievements	Future direction
Challenge 1 **There are many bicycle accidents involving senior high students.**	• Updated traffic accident hotspot map • Updated promotional leaflets • Conducted street awareness-raising activities	• Investigate and verify situation of accidents on traffic accident hotspot map • Verify performance
Challenge 2 **Accidents involving elderly people are often serious**	• Held traffic safety classes • Promoted voluntary return of driver's license by elderly • Distributed reflectors	• Raise awareness of traffic safety classes and voluntary return of driver's license • Promotional activities to promote the use of reflectors
Challenge 3 **There are many accidents at intersections.**	• Conducted investigation of intersections • Analyzed causes of accidents at intersections • Improving the road enviroment	• Link investigation results to study for improving road environment

Thank you for listening.