

Annual Report 2022

Tokyo Fire Department (TFD)

Annual Report 2022

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The **Annual Report 2022** is a summarized translation based on the White Paper on TOKYO Fire Service 2022.



TFD DIARY 2021

New Year's Fire Review 2021 (Jan.)



Spring Fire Prevention Campaign (Mar.)



- ★ New Year's Fire Review 2021
- ★ Cultural Property Fire Prevention Day

- ◆ Dispatch to the Forest Fire at Ashikaga City
- ◆ Forest Fire at Sawai in Ome City

- Kanda Back-up Unit in Operation (A Toilet Car)

- ★ Hazardous Materials Safety Week



Jan. 2022

Feb. 2022

Mar. 2022

Apr. 2022

May 2022

Jun. 2022

- ★ Spring Fire Prevention Campaign

Cultural Property Fire Prevention Day (Jan.)



Kanda Backup Unit (A Toilet Car) in Operation (Apr.)



Diary

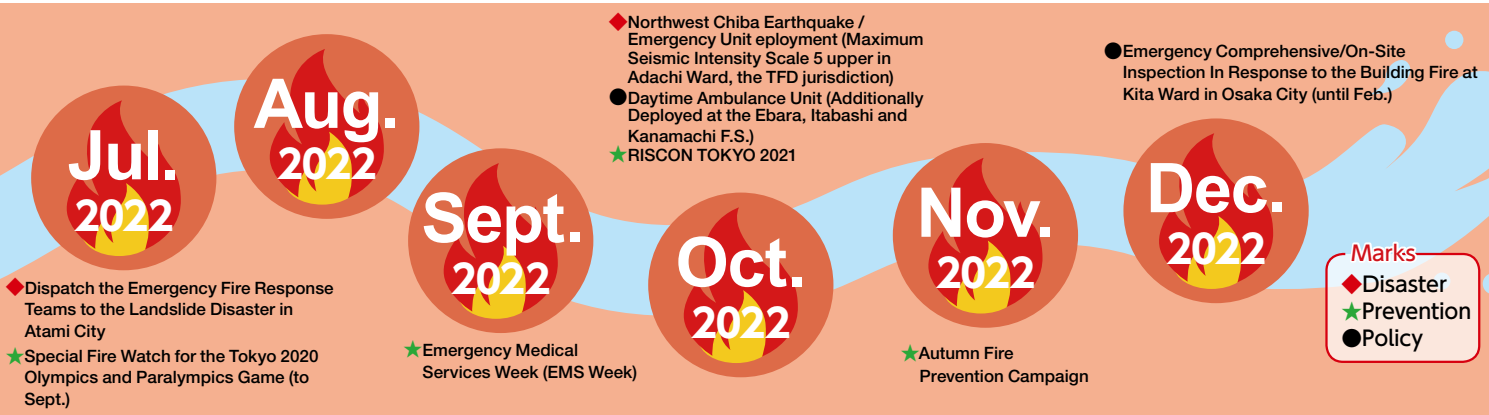
~Looking Back on 2021~

Diary

Dispatch the Emergency Fire Response Teams to the Landslide Disaster in Atami City (Jul.)



Autumn Fire Prevention Campaign (Nov.)



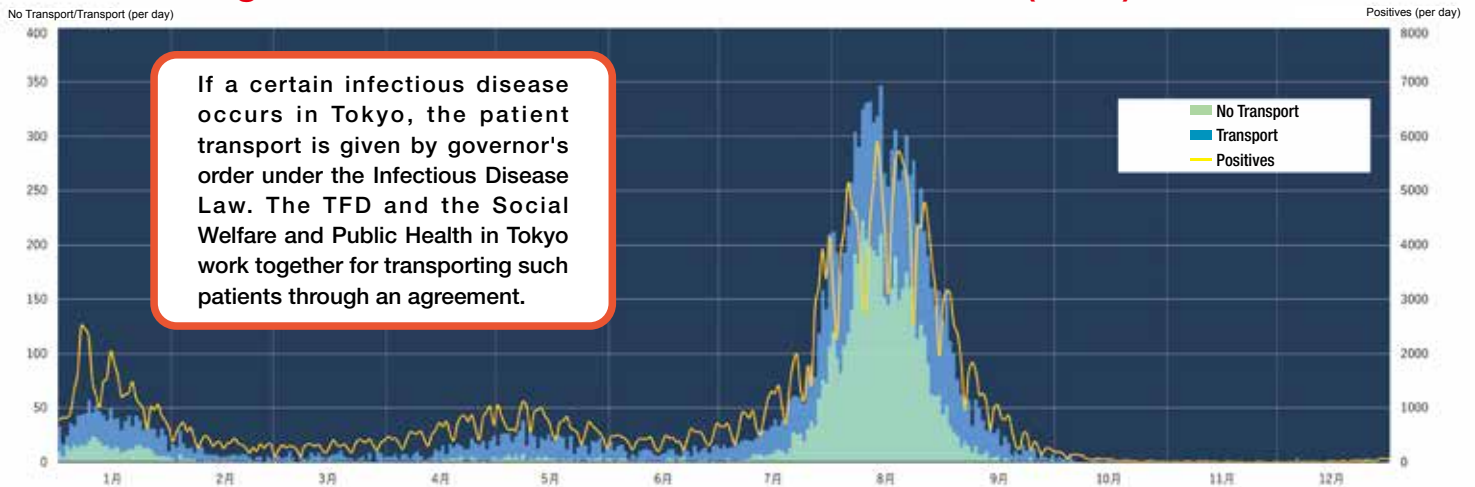
Special Fire Watch for the Tokyo 2020 Olympics and Paralympics Game (Jul. - Sept.)



Diary

Response to COVID-19 Positives

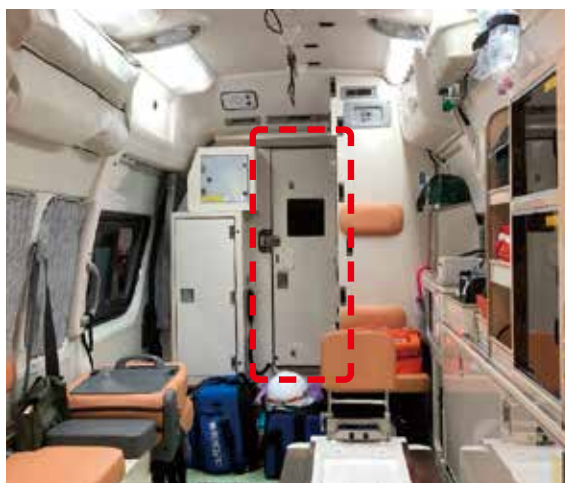
● Change in Ambulance Runs of COVID-19 Cases (2021)



● Infection Prevention Measures for EMS Crews

Enforced Prevention Measures	Semi-Enforced Prevention Measures
<ul style="list-style-type: none"> EMS Activities for Proven COVID-19 Positive Patients EMS Activities for Possible COVID-19 Patients 	<ul style="list-style-type: none"> EMS Activities for No Possible Covid-19 Patients

● Infection Prevention Measures inside an Ambulance



▲ Bulkhead

▼ Infection Prevention Hood





Emergency Fire Response Teams

Topics



Landslide Disaster Scene in Atami City

—Tokyo 2020 Olympic and Paralympics Games—

For a Safe and Secure Games



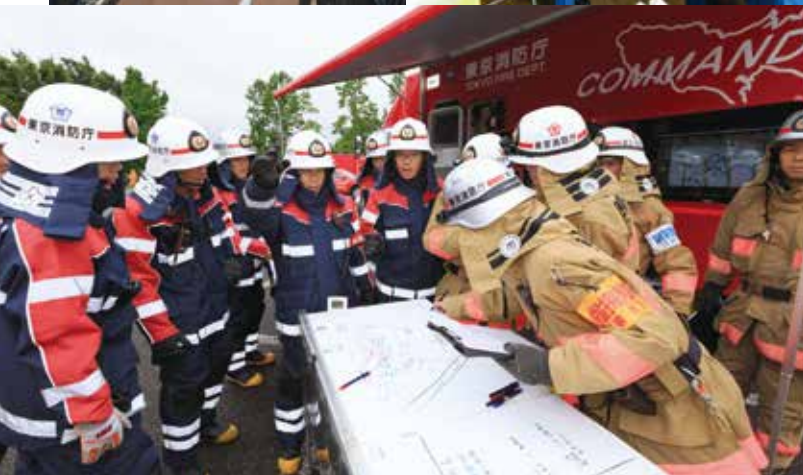
Fire Drill at the Tokyo 2020 Stadium



Careful Advance
Preparations



Mobilizing All the
TFD Members to
Perform Large-scale
Counterterrorism Training





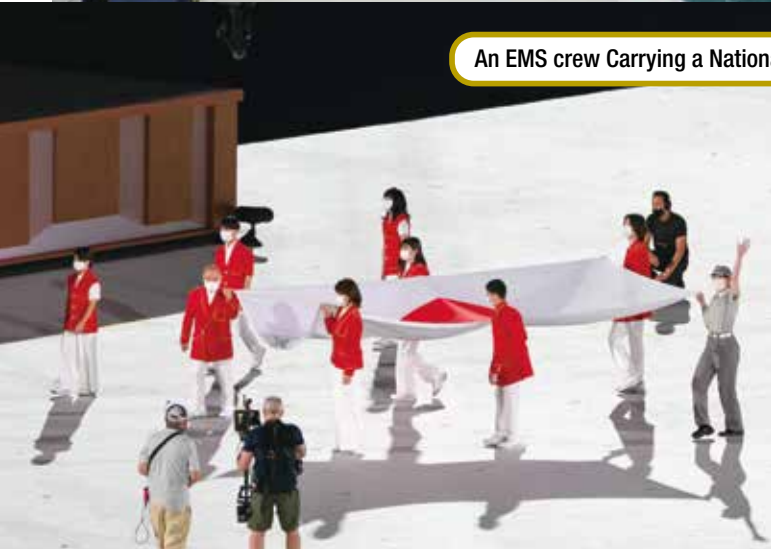
Careful Prior Confirmation



Safety Assurance during Competition



An EMS crew Carrying a National Flag at the Opening Ceremony



東京消防庁
安全推進部創設式



Foundation of the Safety Promotion Division



For Eradication of Serious Accidents



Special Rescue Unit



1971 ▶ 2021

50th Anniversary

1932

▶ Shirakiya Department Store Fire

On December 16, 1932, the 14,000 m² store burned, with 14 deaths and 67 injuries. Due to this incident, a full-time rescue unit was formed, which is the predecessor of the Special Rescue Unit.



1933

▶ First Responder System and Rescue Vehicle Deployment

In April 1933, the "first responder" system and its task was stipulated. That same year in June, under the police department, a rescue truck remodeled from a Ford truck was donated to the Kanda F.S.



1935

▶ Full-time Rescue Unit System

Inside Tokyo City, which is the previous name of Tokyo, the full-time rescue unit was deployed at the Kanda, Shiba, Kojimachi, Hongo and Shitaya (Ueno) F.S., one for each fire district HQ.

1948

▶ Launch of the Tokyo Fire Bureau

▶ Rename: from the Tokyo Fire Bureau to the Tokyo Fire Department

1955

▶ Revival of the Full-time Rescue Unit

A fire at Holy Mother's Garden in Yokohama, where 99 fire deaths occurred, triggered the TFD to revive the full-time rescue unit at 36 fire stations.

1962

▶ Mikawashima Train Crash

At the railroad yard of Mikawashima Station, the Joban Line of Japan National Railways, a cargo train and a passenger train suffered a two-way crash resulting in a catastrophe of 529 passengers dead or injured. Taking this incident into consideration, experts had started considering deployment of the highly skilled special rescue unit.

1963

▶ Development of Rescue Unit Educators

For three weeks from October 21st, in order to acquire rescue operations procedures, rescue skills and educational methods, ten fire lieutenants selected from each fire station were dispatched to the JGSDF 1st Airborne Training Unit.

1969

▶ Starting the Interim Operation of the Nagatacho Special Rescue Unit

As a future plan, two special rescue units for each district were fixed. A unit was deployed at the Nagatacho Fire Station Branch of the Kojimachi Fire Station where the operation begun for the unit with special apparatus and techniques in operation.



1971

◆ Start of Nagatacho Special Rescue Unit in Regular Operation

1972

▶ Start of Special Rescue Training

▶ Introduction of the Special Rescue Unit Personnel System



1973

▶ Establishment of the Rescue Uniform

▶ Nickname and Details for the Special Rescue Unit Decided

By looking for ideas from the rescue personnel and Tokyo citizens, the details were decided. The unit's nickname was to be "Tokyo Rescue", its common name as "Orange Unit" and its patch design as the "Saint Bernard Dog." Also, the rescue truck was painted with the "Saint Bernard Dog" and "Swallow-designed Line."

1974

▶ Ladder Truck Special Rescue Unit is in Operation

▶ Water Rescue Unit is in Operation



1986

▶ First Joint Training with the International Rescue Team (IRT)

51 Municipal Fire Bureaus with 1,204 firefighters (incl. the 465 TFD members) took part in the training in the presence of the Crown Prince of Japan.



▶ Publication of the Ministerial Ordinance (Standards for the Unit's Formation, Apparatus/Equipment and Deployment)

By this ordinance, the rescue unit standards are enacted, for the unit made up of members acquired special education on rescue operations and rescue tools and vehicles necessary in operations.

▶ Mountain Rescue in Operation

▶ Enactment and Publication of the Law on IRT Dispatch

The legal basis for fire authorities overseas operations is clarified.

▶ The Fire Rescue Task Forces of the 2nd and 8th Fire District HQ in Operation

Based on lessons learned from the Great Hanshin Awaji Earthquake that occurred in 1995, the TFD started its operation of the Fire Rescue Task Forces in order to fight against earthquake and large-scale special disasters.



1996

▶ The Fire Rescue Task Forces of the 3rd Fire District HQ in Operation

▶ Disasters of the Niigata Chuetsu Earthquake

It was M6.8 and Seismic Intensity of 7 with 68 deaths, 4,805 injuries and 16,985 full/half-collapsed buildings the Fire and Disaster Management Agency, Ministry of Internal Affairs and Communications: final figures) On-scene the TFD's fire rescue task forces coping with rescue units from other prefectures rescued a two-year-old boy under the landslide four days after the earthquake occurrence.



2004

▶ The Fire Rescue Task Forces of the 6th Fire District HQ in Operation

▶ Great East Japan Earthquake

Massive earthquake observed as M9.0 with the giant tsunami occurred afterwards caused 19,759 deaths and 2,553 missing persons (Research: as of March 1st, 2022, by the Fire and Disaster Management Agency (FDMA) of the Ministry of Internal Affairs and Communications). Due to the dispatch order to the Tokyo Governor by the director of the FDMA, the TFD units were sent to the disaster scenes such as Miyagi, Chiba and Iwate prefectures. Simultaneously, the special dispatch order to the Tokyo Governor by the prime minister, the TFD units conducted water discharge and cool-down operation to the pool filled with used nuclear fuels at the Fukushima No.1 Nuclear Power Plant.



2011

▶ Fire Rescue Task Forces of the 9th Fire District HQ in Operation

▶ Air Fire Rescue Task Forces in Operation

Taking advantage of fire helicopters' mobility, the TFD established the Air Fire Rescue Task Forces and started its operation in order to swiftly deal with disasters at high-rise buildings, mountain areas and isolated areas due to landslides, locations where it is hard to approach from the ground.



2016

▶ TFD HQ Rescue Operation Forces in Operation

In order to reinforce fire services against frequent natural disasters, the TFD HQ Rescue Operation Forces started its operation. The Fire Suppression Division deploys rescue units under its direct control for the first time.



2020

Fighting against any Disasters

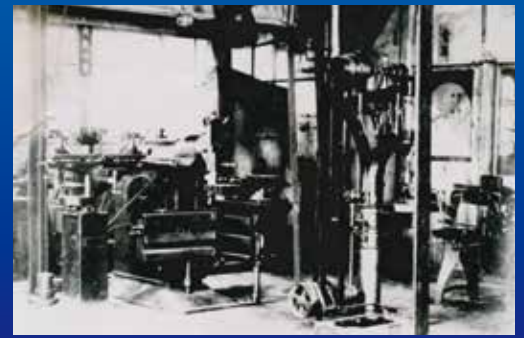


For further info. (The 50th Anniversary of the Special Rescue Unit in Japanese)



100th Anniversary Maintenance Shop

(since 1921)



▲ The Fukagawa Fire Maintenance Shop was founded in 1921.



◀ Present view of the Maintenance Shop

Change in the Maintenance Shop's engineer vehicle



First Generation: since 1984



Second Generation: since 1995



◀ Third Generation (now in use): since 2008

The engineer vehicle is actively operating for disaster scenes, dispatches, traffic accidents on the way to the scene, quick repair to malfunctions of vehicles, logistic support for emergency fire response teams and support for large-scale special fire watches (i.g. the watch for a summit).

COLUMN

Working for Fire Service, Working at Maintenance -- Mechanic with about 2,000 emergency vehicles --

After eight years as a mechanic at an auto company, I joined the TFD. I saw TFD Maintenance Shop members supporting fire units as on-scene mechanics at Great East Japan Earthquake scenes, and that made me want to join the TFD. Vehicle checking does a lot to help firefighters. My skills might also eventually save people's lives and property... I thought this way and found the TFD job most challenging. Additionally, I was excited to know the Shop can handle as many as about 2,000 fire vehicles and others including ladder trucks not dealt with by just ordinary factories. I'll keep on learning, keep vehicles in gear,

keep on working for on-scene heroes... (Joined in 2013)



Maintenance Shop



Painting

Sliding Roof

Inspection

Shop I

Procurement

Shop II

Refill

119 Reporting System

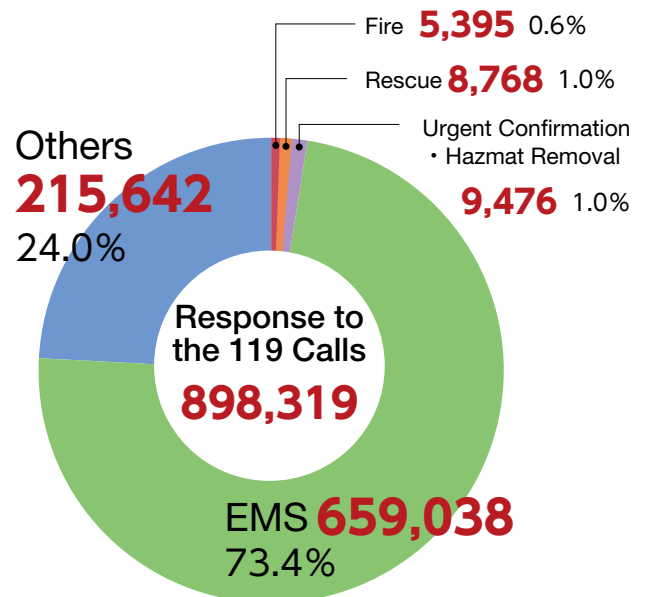
When you call 119 in Tokyo*, the line connects to the Command and Control Center in Chiyoda Ward or Tachikawa City, depending on where you call from.

The number of 119 reportings in 2021 was 898,318, which is about 2,460 a day on average.

That means the Center responded to one call approximately every 35 seconds. Additionally, it responds to reports from the police and companies.

* Excl. Inagi City and Islands

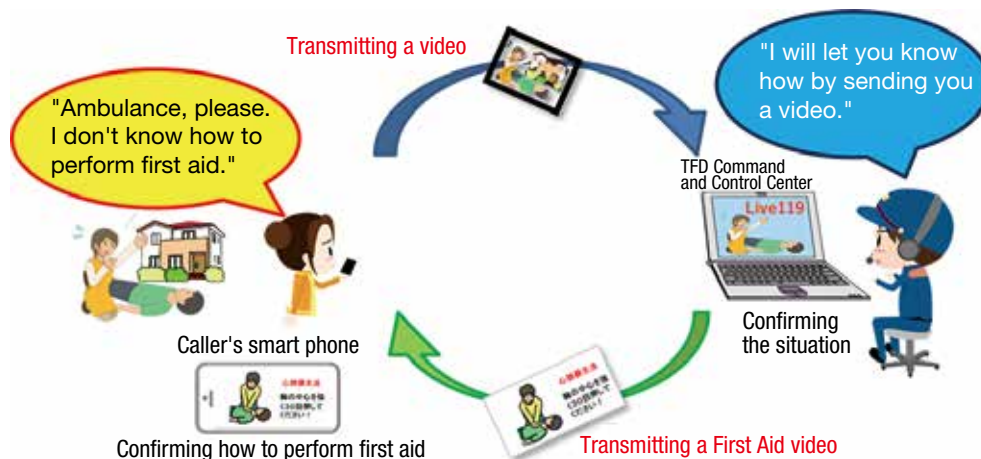
119 Reporting in 2021 by Categories



Oral Guidance System with On-scene Images (Live 119)

Sometimes it is hard for the Center members to understand the accurate patients' condition and to confirm the effectiveness of bystanders performing first-aid by oral advice alone.

Accordingly, the TFD has introduced Live 119, the system which an operator is able to send an image to a caller while connecting a line at the same time.



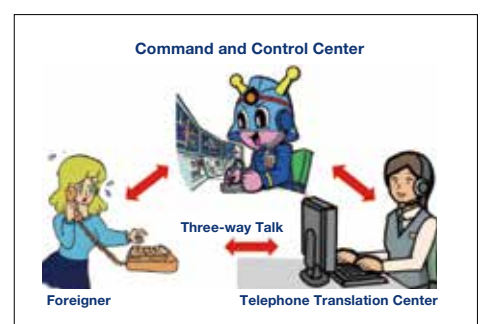
Response in Foreign Languages

English speaking members are assigned at the Command and Control Center in Chiyoda Ward and Tama City to respond to 119 calls from foreign nationals.

Additionally, in order to respond to 119 calls in languages other than English, the TFD introduced the three-way-talk simultaneous translation service over the phone for foreign nationals. It reinforced the 119 receiving system for those who are not familiar with English.

(English, Chinese, Korean, Portuguese and Spanish are available.)

119 reporting responses in multiple languages



FIRE

1. Outline

In fiscal 2021, the number of fires within the TFD's jurisdiction was 3,939, up 245 from the previous year. The number of fires is showing a decreasing trend. Until 2013, the number of fires was just over 5,000 annually, which decreased to between 4,000 and 5,000 in 2014. This number then fell to around 4,000 from 2015 to 2020. In 2021, the number of fires was the second lowest since the TFD had started to entrust fire service in the Tama area in 1960.

The burnt floor area was 16,448m², up 312 m² from the previous year, and has been on a decreasing trend over the last 10 years.

The number of fire deaths is 86, the same from the previous year.

Chart 1-1. Fires and Burnt Floor Areas (2012-2021)

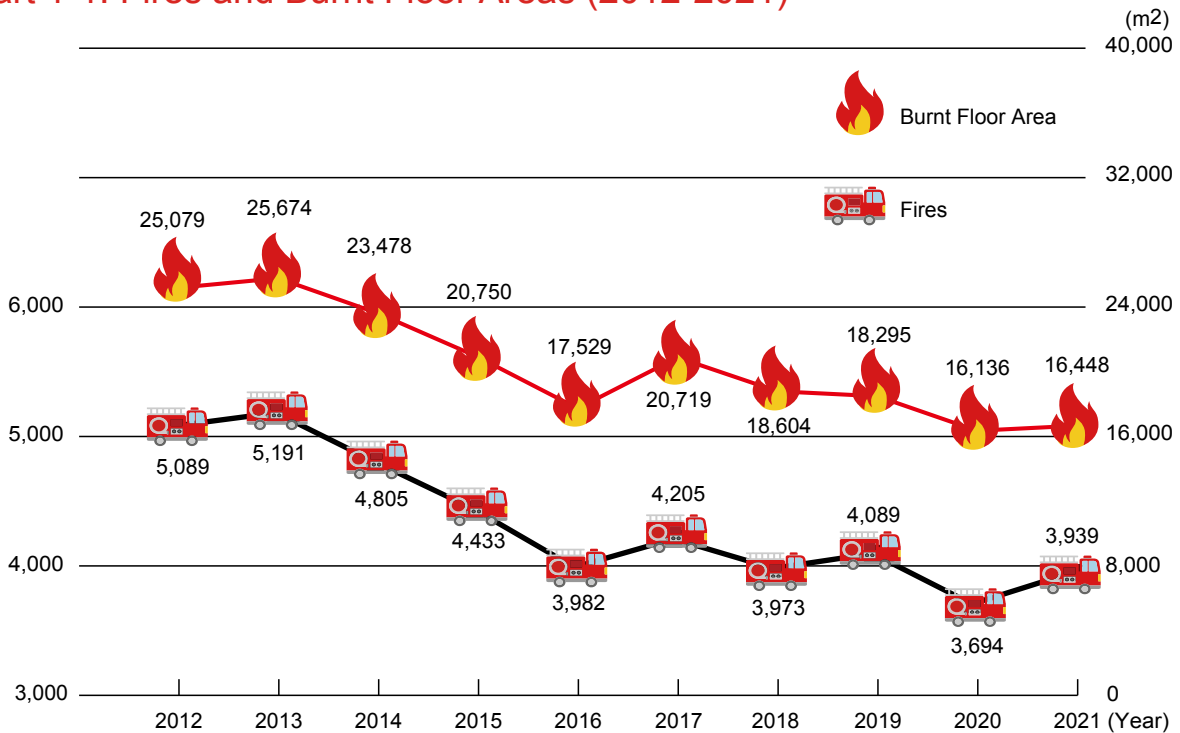
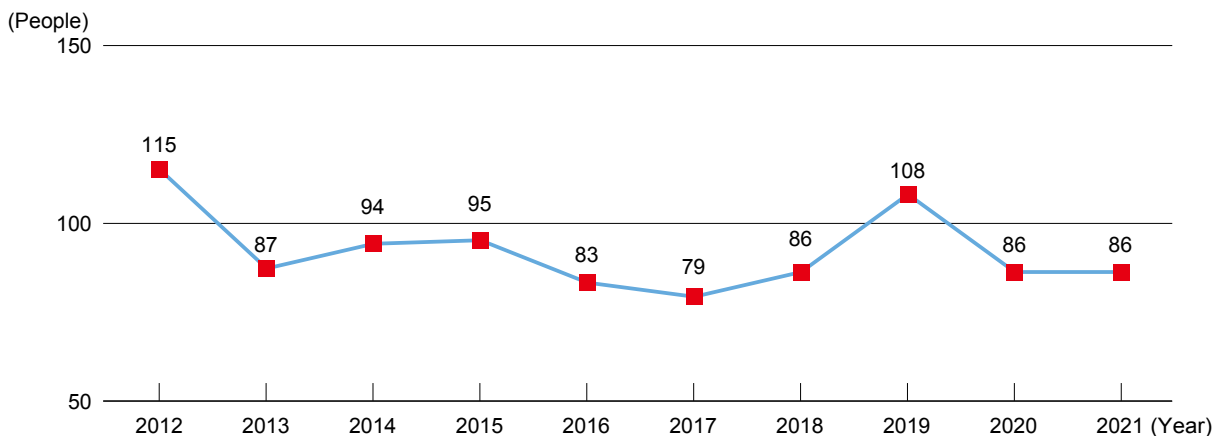


Chart 1-2. Fire Deaths over 10 Years (2012-2021)



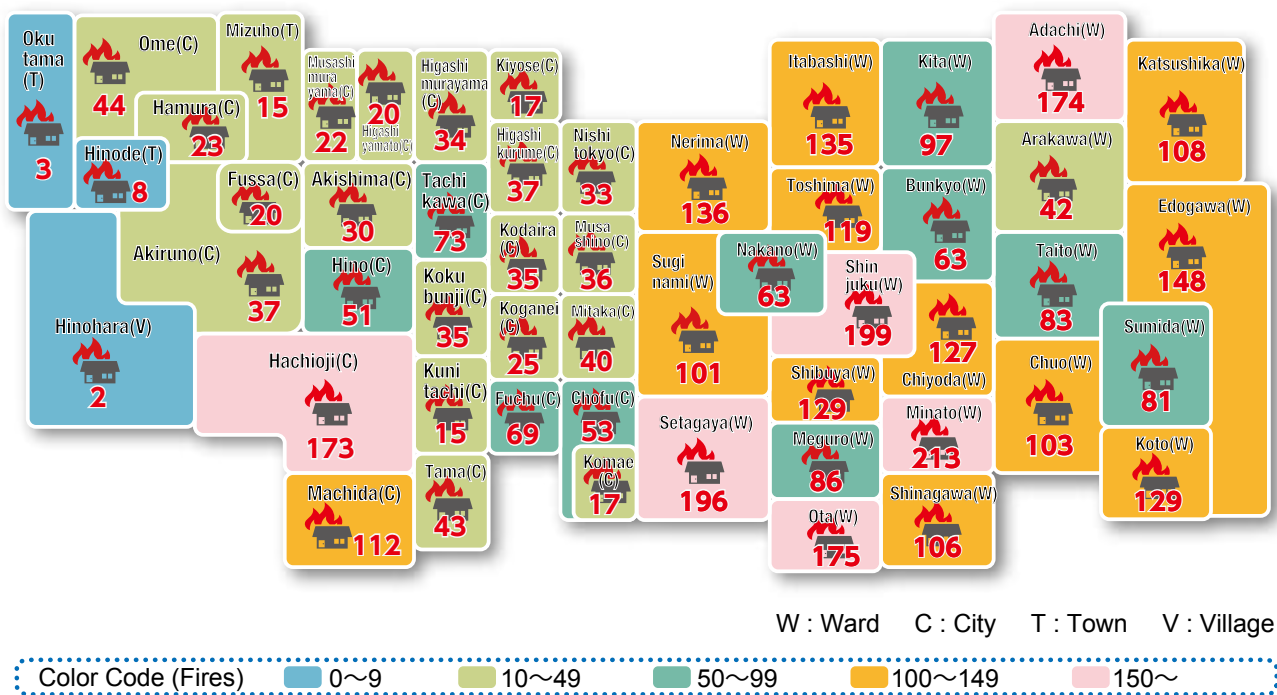
In terms of fire type, there were 2,812 building fires, an increase of 145 from the previous year, which accounted for more than 70% of all fires. There were 901 other types of fires, a significant increase of 92 from previous years.

* Building Fire: a fire which buildings themselves and objects inside them were burned.

Chart 1-3. Details

		2021	2020	Change from 2020
Fires		3,939	3,694	245
Type	Buildings Fires	2,812	2,667	145
	Wildland Fires	6	1	5
	Vehicle Fires	215	216	▲ 1
	Ship Fires	1	0	1
	Aircraft Fires	0	0	0
	Others	901	809	92
Extraterritorial		4	1	3
Outside Jurisdiction		0	0	0
Fire Deaths		86	86	0
Fire Injuries		664	710	▲ 46
Burnt Floor Areas		16,448 m ²	16,136 m ²	312 m ²
Burnt Buildings		3,228	3,028	200
Affected Households		2,382	2,239	143
Damage		¥4,208,012,095	¥5,601,522,177	▲ ¥1,393,510,082

Chart 1-4. Fires by Municipality (2021)



2. Fire Deaths and Injuries

(1) Fire Deaths

The number of fire deaths excluding self-inflicted loss in 2021 was 72, down 4 from the previous year.

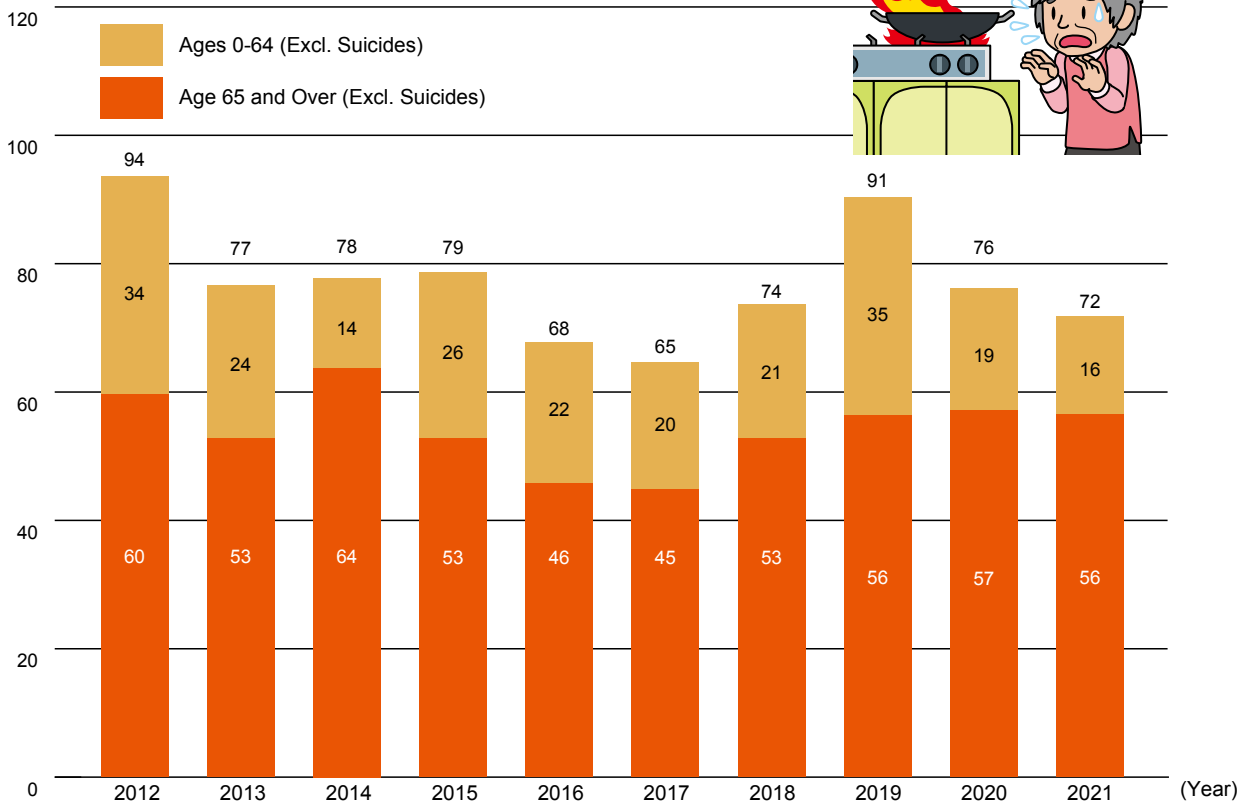
In terms of the occurrence of death by age group, the number of the elderly aged 65 and over was 56, which accounted for 77.8% of total fire deaths.

Chart 2-1-1. Fire Deaths

	2021	2020	Change from 2020
Fire Deaths	86	86	—
Excluding Suicides	72	76	▲ 4
Age 65 and Over	56(77.8%)	57(75.0%)	▲ 1
Ages 0-64	16(22.2%)	19(25.0%)	▲ 3
Suicides	14	10	4

Chart 2-1-2. Fire Deaths by Age Group

(People)



Note: Age Unknown is included in Age 0-64.

(2) Fire Injuries

There were 664 fire injuries, down 46 from the previous year.

In terms of the degree of the 664 injuries, people with minor injuries accounted for nearly 60% of the total. However, for the rest of 40%, the number of the people with critical injuries accounted for 20 (3.0%), those with severe injuries accounted for 79 (11.9%), and those with moderate injuries accounted for 162 (24.4%).

Chart 2-2-1. Number of Fire Injuries

		2021	2020	Change from 2020
Fire Injuries		664	710	▲ 46
Degree	Critical Fire Injuries	20(3.0%)	17(2.4%)	3
	Severe Fire Injuries	79(11.9%)	68(9.6%)	11
	Moderate Fire Injuries	162(24.4%)	190(26.8%)	▲ 28
	Minor Fire Injuries	403(60.7%)	435(61.3%)	▲ 32

The first major cause of fires in 2021 was arson (incl. suspected arson), followed by cigarettes and gas ranges and similar devices. The ranking stays the same as the previous year for those three major causes.

There were 590 cases of arson (incl. suspected arson), down 51 from the previous year. The second major cause was cigarettes, which accounted for 583 cases, up 75 from the previous year. The third major cause was gas ranges and similar devices, which accounted for 361 cases, down 38 from the previous year.

Chart 2-2-2. Major Fire Causes (Top 10 in 2021)

Year / Change from 2020	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Change from 2020
Arson (Incl. Suspected Arson)	1,507	1,622	1,381	1,027	881	896	705	641	641	590	▲ 51
Cigarettes	709	737	710	664	586	691	651	689	508	583	75
Gas Ranges	441	418	415	457	363	360	305	347	399	361	▲ 38
Large Gas Stoves	92	102	110	118	110	95	98	110	72	90	18
Outlets	70	66	48	53	59	59	56	56	59	86	27
Electric Heaters	118	105	104	75	85	100	71	85	69	85	16
Plugs	56	69	59	47	64	64	64	85	62	82	20
Cords	77	49	45	57	61	74	57	62	60	53	▲ 7
Internal Wiring	33	46	41	46	41	40	39	56	28	42	14
Fluorescent light	37	45	42	42	41	35	35	43	41	41	—

3. Structure Fires by Type

The number of the fires that broke out from “structure themselves” in 2021 was 2,720, up 122 from the previous year.

There were 1,617 fires that broke out from detached houses and apartment buildings, accounting for more than half of the fires from structures themselves.

The breakdown shows 1,017 apartment building fires (up 28 from the previous year) and 600 detached house fires (up 36) . There were 1,103 structural fires from buildings other than those for residential housing, up 58 from the previous year. By type of use, the number of restaurant fires was 288, which was the largest (up 44 from the previous year), followed by 117 office fires (up 7) and 117 fires from department stores and shops (up 1).

Chart 3. Structure Fires by Type (Top 8, excluding home fires in 2021)

Year	Home Fires	Breakdown		Restaurants	Offices	Department Stores and Shops
		Houses	Apartment Buildings			
2012	1,916	724	1,192	295	144	116
2013	1,777	680	1,097	311	130	130
2014	1,694	634	1,060	296	123	113
2015	1,675	615	1,060	339	121	87
2016	1,497	539	958	345	126	103
2017	1,597	579	1,018	318	151	110
2018	1,484	539	945	330	142	94
2019	1,543	583	960	368	175	112
2020	1,553	564	989	244	155	116
2021	1,617	600	1,017	288	162	117
Change from 2020	64	36	28	44	7	1

Year	Factories	Hotels and Inns	Hospitals	Railroad Stations	Schools	Structure Fires (Total)
2012	101	17	19	32	37	3,206
2013	113	25	19	32	38	3,127
2014	84	33	13	22	27	2,878
2015	95	26	20	18	29	2,827
2016	89	37	17	21	33	2,681
2017	84	36	24	14	31	2,730
2018	90	19	21	16	40	2,609
2019	85	30	20	20	51	2,811
2020	64	21	27	27	25	2,598
2021	74	26	26	25	24	2,720
Change from 2020	10	5	▲ 1	▲ 2	▲ 1	122

4. Home Fires

(1) Number / Causes

In 2021, there were 3,939 fires of which 1,617 were caused in the home. The number of home fires is up 64 from the previous year. The total number is down 299 compared to 1,916, the biggest number in 2012, of the recent 10-year change in home fires.

Chart 4-1-1. Structure Fires (2021)

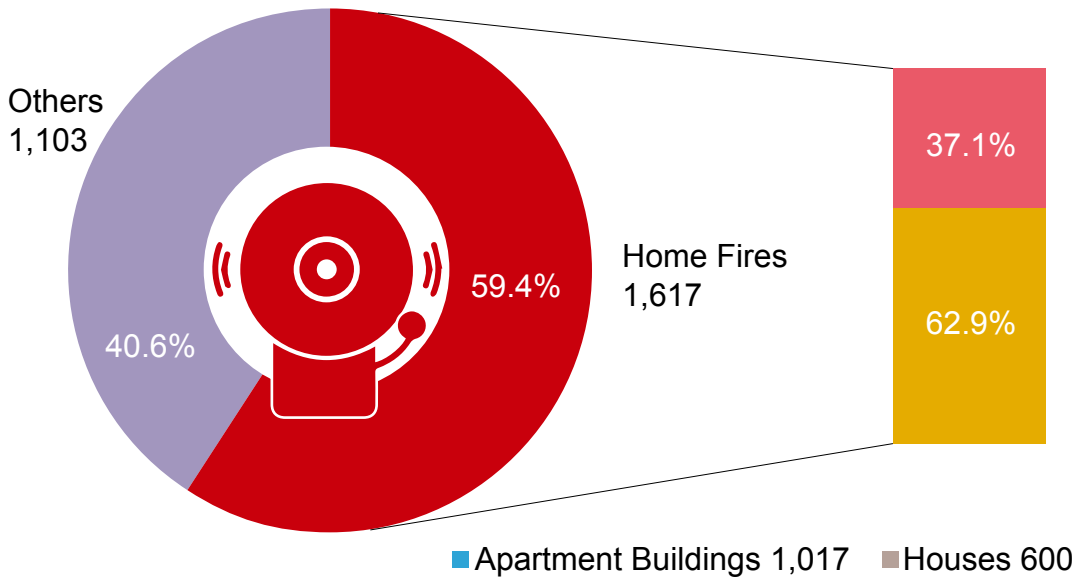
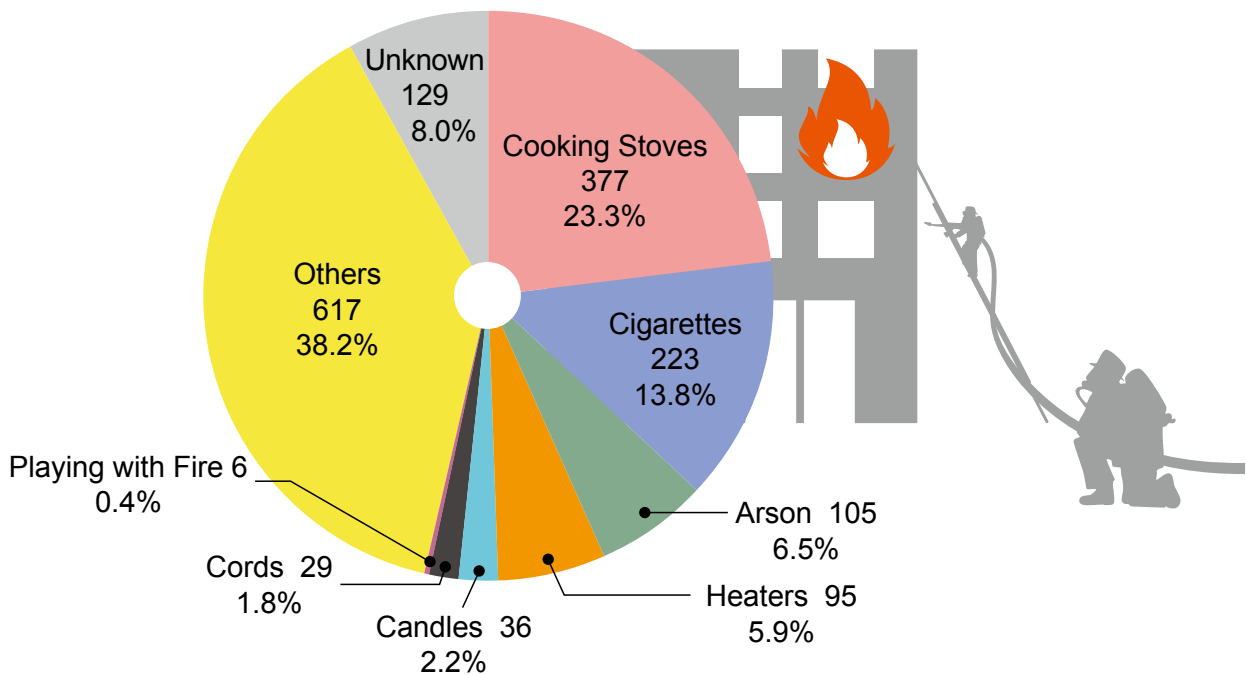


Chart 4-1-2. Home Fire Causes (2021)



(2) Home Fire Deaths

The number of the fire deaths excluding self-inflicted loss in 2021 was 72, down 4 from the previous year. Of these, 69 died in home fires, down 2 from the previous year. The rate of deaths due to home fires except self-inflicted loss was about 90%.

In terms of housing type, 44 people (63.8%) died in detached house fires, and 25 people (36.2%) died in apartment building fires, which means the rate of detached house fires is high.

Chart 4-2-1. 10-year Change in Home Fire Deaths (2012-2021)

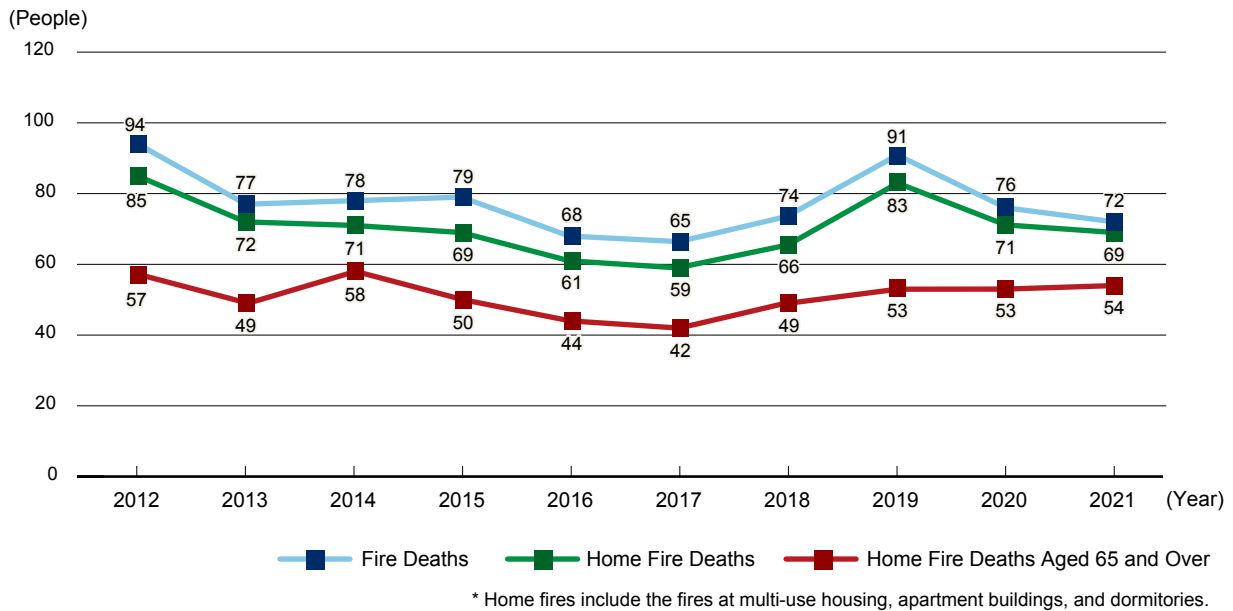
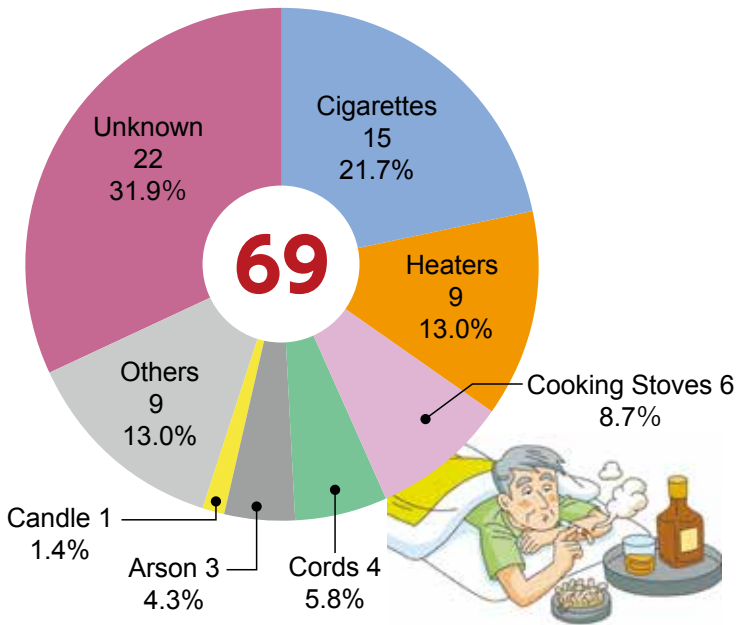


Chart 4-2-2. Home Fire Deaths by Gender

Age	Gender		Total	Rate
	Male	Female		
Infants (Age 0-5)	0	0	0	0%
Underages (Age 6-19)	0	0	0	0%
Adults (Age 20-64)	9	6	15	21.7%
Seniors (Age 65 and Over)	25	29	54	78.3%
Total	34	35	69	100%
Rate	49.3%	50.7%	100%	—

Chart 4-2-3. Fire Deaths by Cause (2021)



(3) Home Fire Alarm

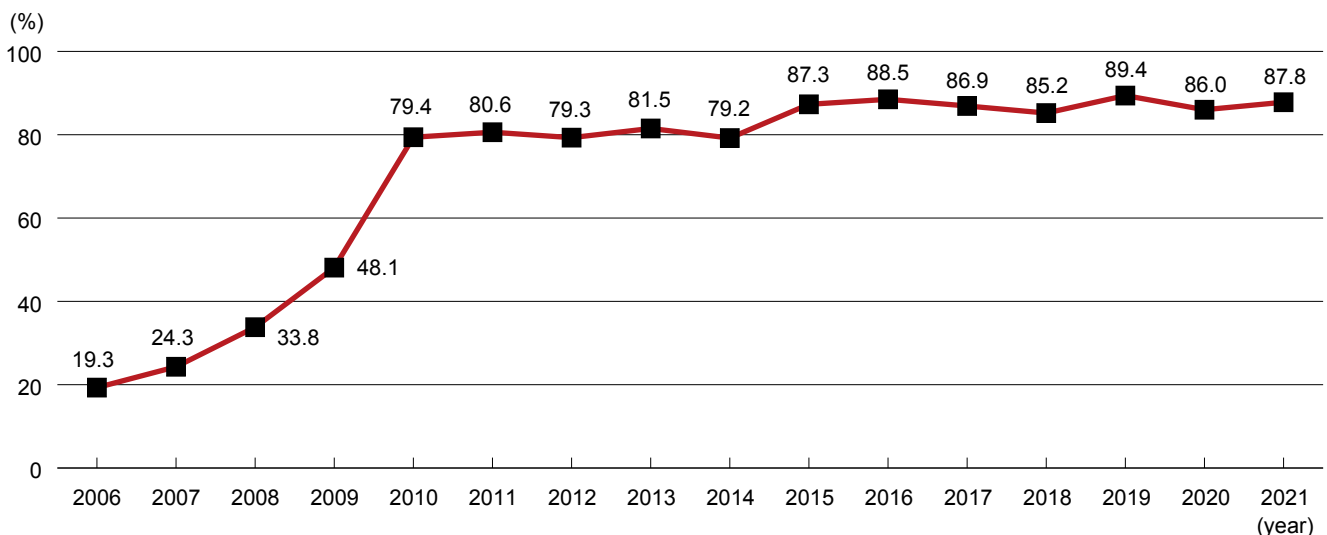
The installation rate of residential fire alarm (incl. automatic fire alarm systems and sprinklers) in 2021 was 87.8%.

As the home fire alarm installation became mandatory in 2010, the installation rate has dramatically increased. Currently, the rate has been stayed around 80%.

Home fire alarms may not be able to detect fires due to their lifespan or failure of electronic components, battery exhaustion, etc., so conduct a regular inspection by pressing the button on the main unit or pulling the string. In addition, the main unit needs to be replaced about every 10 years.



Chart 4-3. Home Fire Alarm Installation Rate (2006-2021)



OPERATIONS

1. Fire

(1) Responses / Scene Personnel / Operation Hours

Fire units were dispatched to 7,333 fires in Tokyo in 2021, including false reports. The number of dispatched fire vehicles was 67,796 and that of personnel was 277,775. On average, nine vehicles with about 38 firefighters responded to each fire.

Chart 1-1-1. Responses (Vehicles) /
On-Scene Personnel and Operation Hours

	2021	2020	Change from 2020
Responses (Vehicles)	7,333 (67,796)	7,117 (60,289)	216 (7,507)
Personnel	277,775	275,027	2,748
Operation Hours	(Average) 0 hr 55 min	(Average) 1 hr 7 min	▲ 12 min

Chart 1-1-2. Fire Apparatus to Fire Scenes

Classification	Total Dispatch	Classification	Total Dispatch
Fire Engines	40,231	Command Vans	7,916
Foam Trucks	3,144	Ladder Trucks	5,338
Rescue Trucks	4,201	Helicopters	64

2. Rescue Scene

(1) Responses (Vehicles) / On-Scene Personnel

In 2021, the number of the people rescued from incidents was 25,004, up 1,148 from the previous year. Both the number of the people rescued and that of the rescue teams dispatched increased.

Chart 2-1-1. Responses (Vehicles) / Personnel / Operation Hours

	2021	2020	Change from 2020
Responses (Vehicles)	25,004 (81,970)	23,856 (78,152)	1,148 (3,818)
Rescued People	18,567	18,197	370
On-Scene Personnel (Incl. DMAT)	336,208	319,565	16,643

* DMAT (Disaster Medical Assistance Team): A specially trained doctor-nurse team responds to a disaster with medical equipment, and performs life-saving treatment on the spot.

Chart 2-1-2. Responses by Incident Type

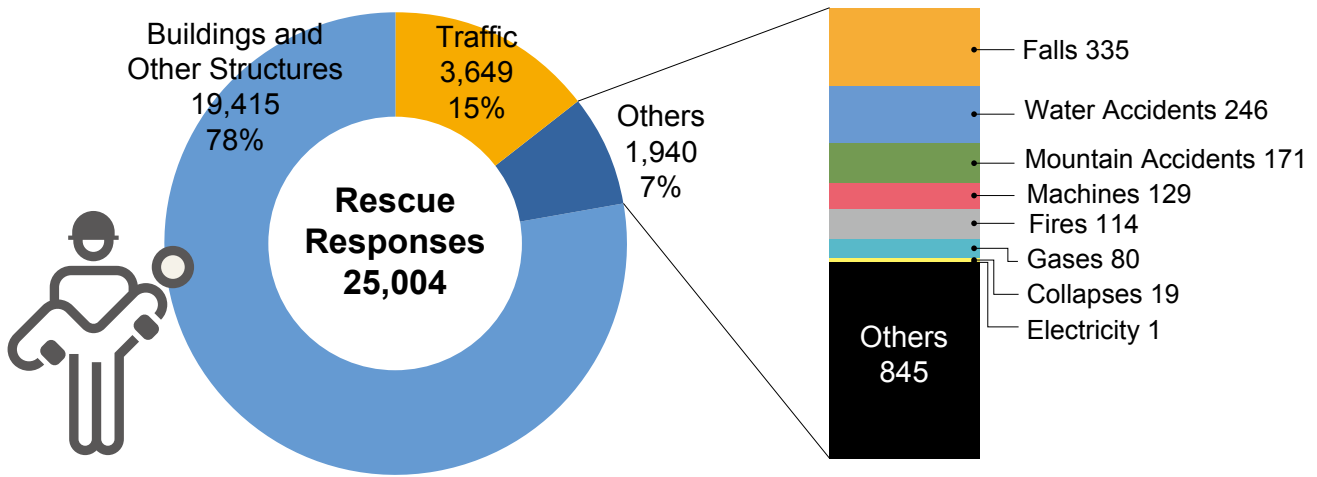
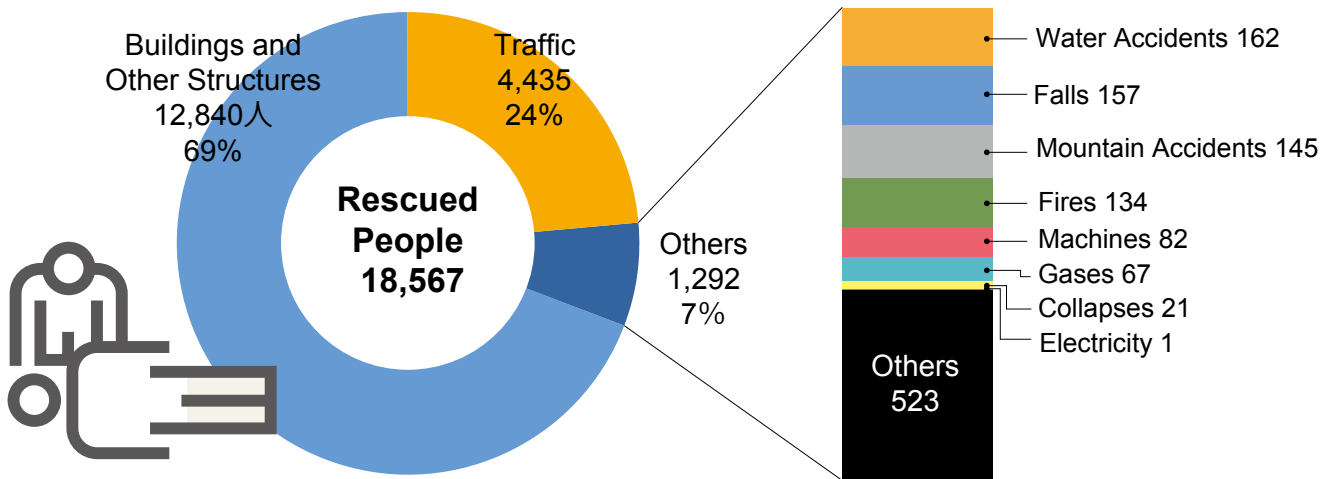


Chart 2-1-3. Rescued People by Incident Type



3. HAZMAT Scene

HAZMAT removal responses are the activities as the necessary measures to prevent fires and reduce human damage in the event of HAZMAT leakages. The measures include the removal of the dangers caused by natural phenomena. The purposes of these activities are classified into the elimination of dangers, first aid, warnings, etc.

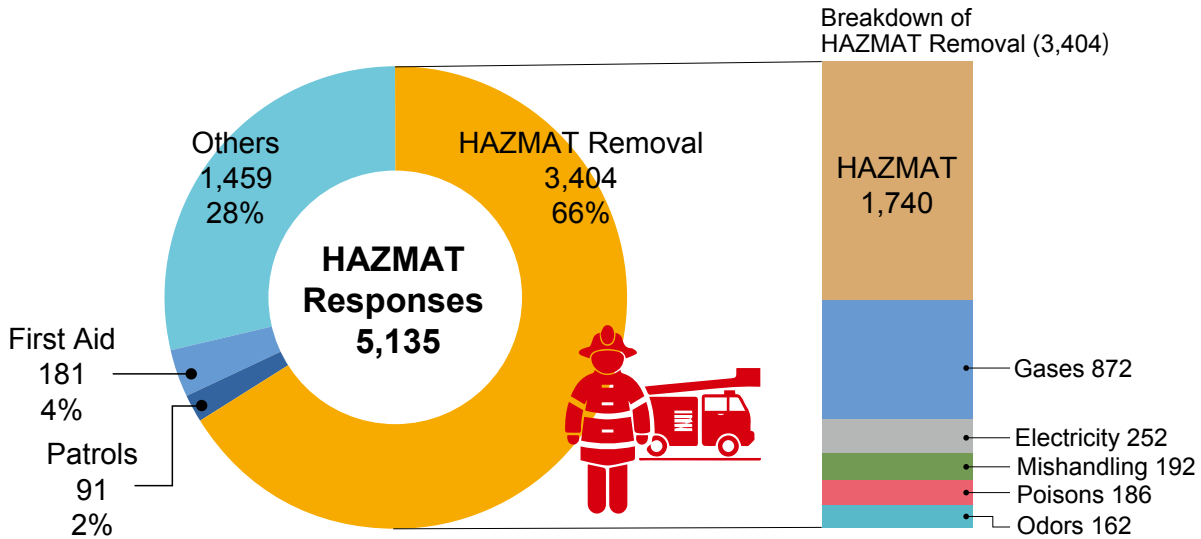
The following table shows the number of dispatches for HAZMAT removal responses in 2021.

The number of the cases where gasoline leaked in traffic accidents falls under elimination of danger, and so the statistics resulted in a higher number.

Chart 3-1. Responses (Vehicles) and Personnel

	2021	2020	Change from 2020
Responses (Vehicles)	5,135 (14,270)	4,945 (13,025)	190 (1,245)
On-Scene Personnel	62,086	56,853	5,233

Chart 3-2. Responses by Activity



4. Emergency Checking

Emergency confirmation responses are the activities to make on-site checks urgently in response to the reports on suspected fire or smoke or the activation of automatic fire alarms. (i.e., the ringing of alarm bells) In 2020, the "Alarms" were 90% of the total.

Chart 4-1. Emergency Checking by Cause

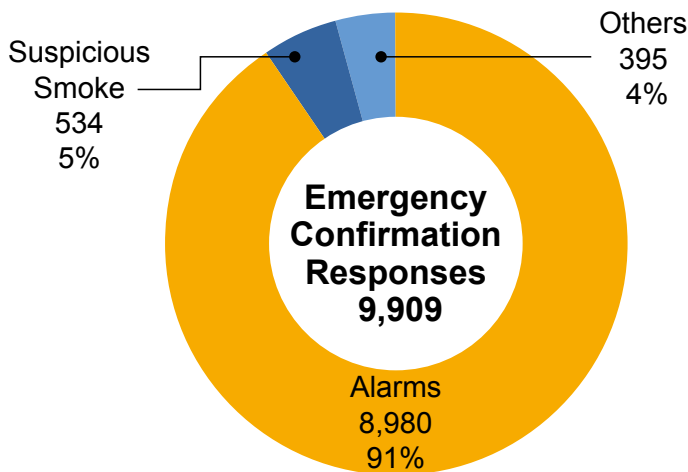


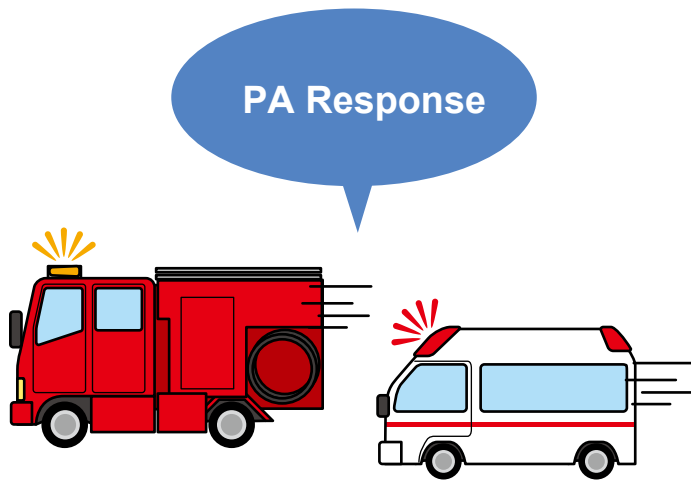
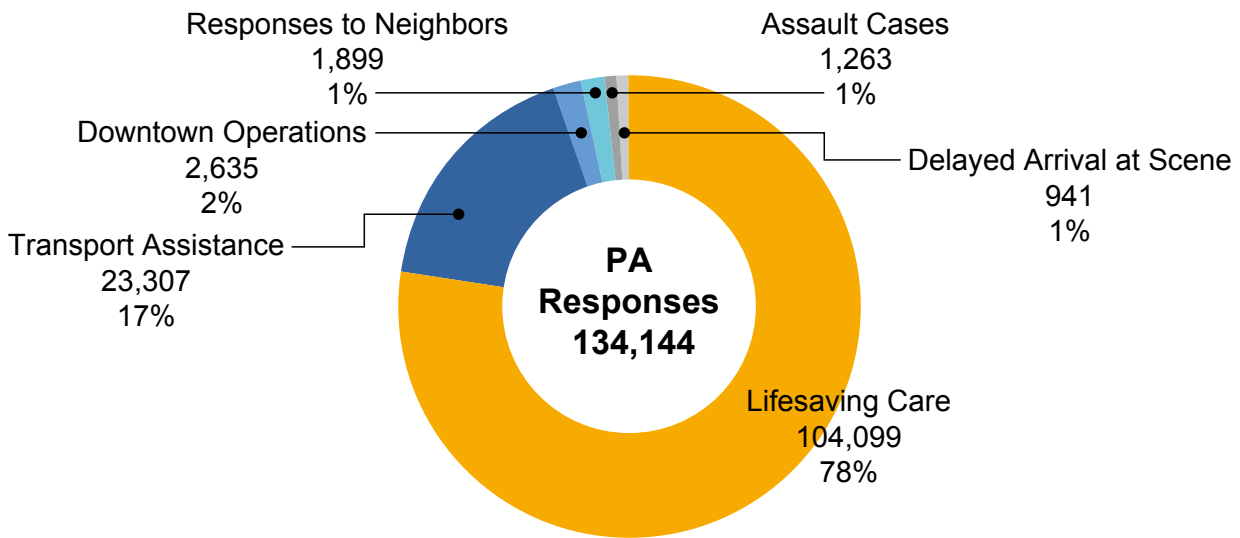
Chart 4-2. Responses (Vehicles) and Personnel

	2021	2020	Change from 2020
Responses (Vehicles)	9,909 (16,127)	9,710 (15,789)	199 (338)
On-Scene Personnel	74,554	72,775	1,779

5. PA Responses

The “PA” responses are the activities in which fire engines, pumpers, or other fire vehicles are dispatched to emergency scenes as needed, and they cooperate with the EMS crew to rescue victims. PA cooperation is required if the transportation of people to save their lives is difficult.

Chart 5-1. PA Responses by Activity



* “PA” stands for “Pumper and Ambulance.” Both of them are dispatched simultaneously. With consideration of the situations where critical patients treatment is difficult for the ambulance crew or victim transportation is difficult through narrow stairways or passages, pumpers or other vehicles are dispatched from the nearest fire station at the same time to conduct cooperative activities.

Chart 5-2. Responses (Vehicles)

	2021	2020	Change from 2020
Responses (Vehicles)	134,144 (136,063)	128,424 (130,259)	5,720 (5,804)

EMERGENCY MEDICAL SERVICE (EMS)

1. Ambulance Runs

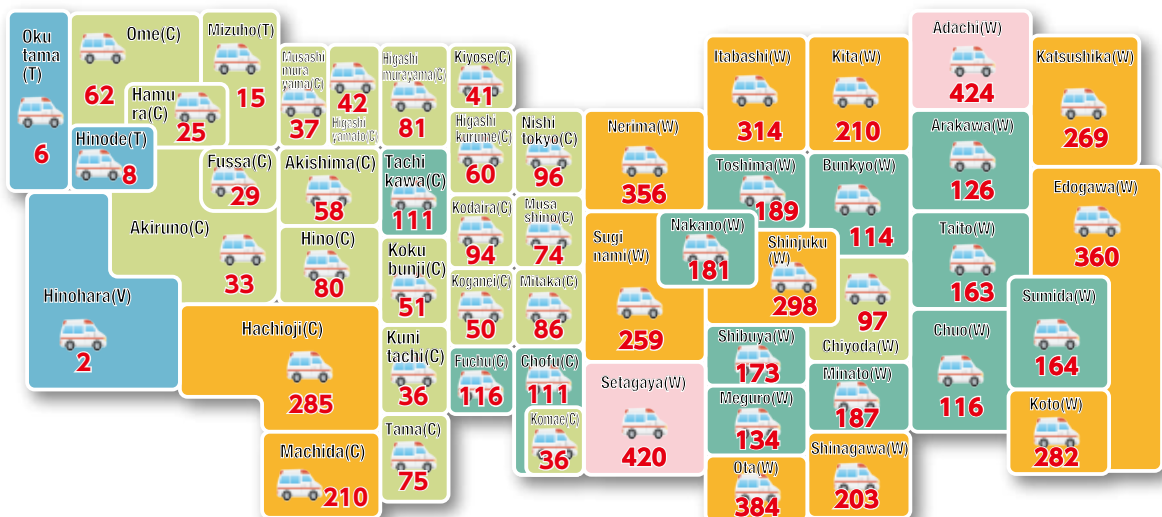
(1) EMS Summary

The 5-year, (2017-2021), change in the number of ambulance runs and the nationwide dispatch number in 2020 are as follows. The number is as of April 1, 2021. The number of nationwide ambulance units is 5,302, and that of ambulances, including back lines, is 6,579.

Chart 1-1-1. 5-year Change in Ambulance Runs (2017-2021)

Types	2017	2018	2019	2020	2021	Nationwide (2020)
Number of Responses	785,184	818,062	825,929	720,965	743,703	5,933,277
Average Response per Day	2,151	2,241	2,263	1,970	2,038	16,211
Dispatch Frequency (Seconds)	40	39	38	44	42	5.3

Chart 1-1-2. Ambulance Runs by District (Round figures in 2021)



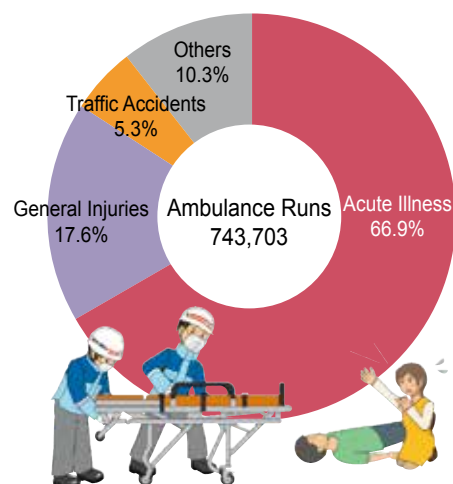
W : Ward C : City T : Town V : Village

Color Code (Ambulance Runs) 0~9 10~99 100~199 200~399 400~ (Unit:100)

Acute illness, General Injuries and Traffic Accidents account for about 90% of all the causes of ambulance runs.

Chart 1-1-3. Ambulance Runs by Accidents Type

Accident Types	Number	Rate	Other Breakdown	Number	Rate
Acute Illness	497,198	66.9%	Transportation between Hospitals	42,345	5.7%
General Injuries	130,625	17.6%	Assaults	4,909	0.7%
Traffic Accidents	39,614	5.3%	Sports Accidents	3,495	0.5%
Others	76,266	10.3%	Worksite Accidents	4,616	0.6%
Total	743,703	100.0%	Self-injuries	5,865	0.8%
			Fire Accidents	3,249	0.4%
			Water Accidents	583	0.1%
			Equipment Transportation	558	0.1%
			Doctor Transportation	189	0.0%
			Natural Disaster Accidents	19	0.0%
			Others	10,438	1.4%



(2) Activity Time / Distance

In 2021, the average time required for emergency activities—from the moment ambulance teams were dispatched until their return to the fire station— was 101 minutes and 45 seconds, and the average running distance was 11.4 km.

Chart 1-2-1. EMS Activity Time / Distance

(m: minute / s: second)

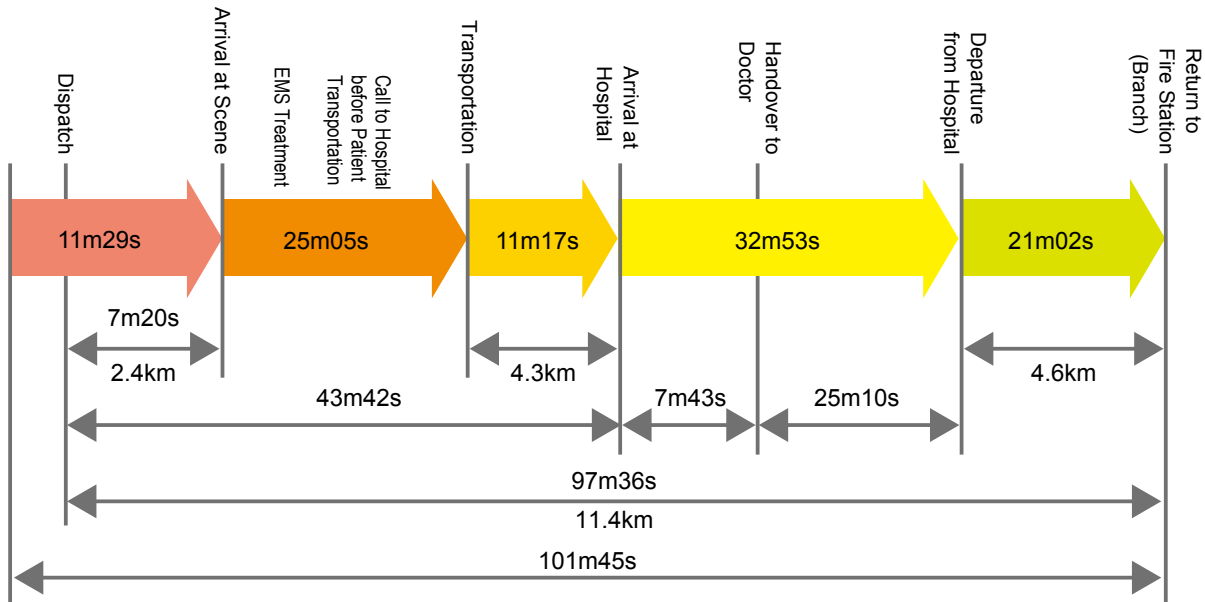


Chart 1-2-2. Ambulance Runs per Month

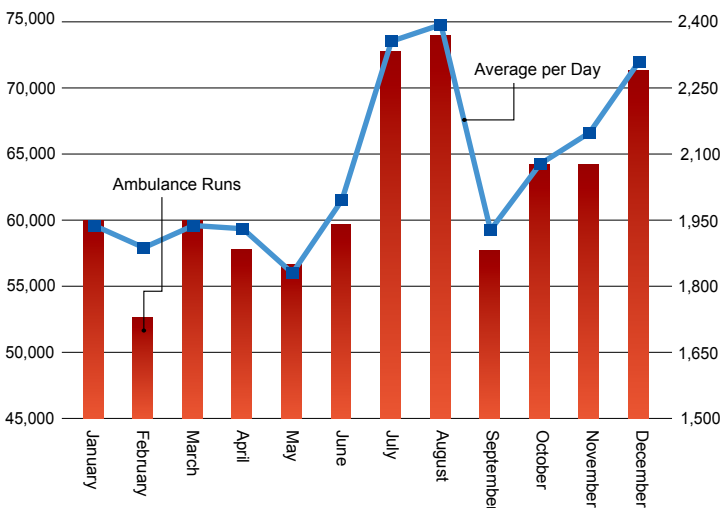
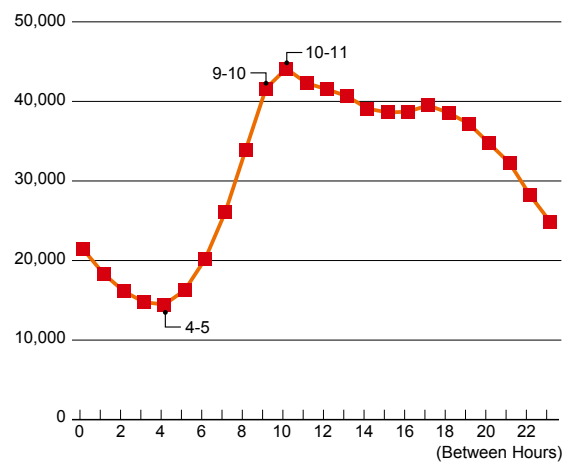


Chart 1-2-3. Ambulance Runs for the day

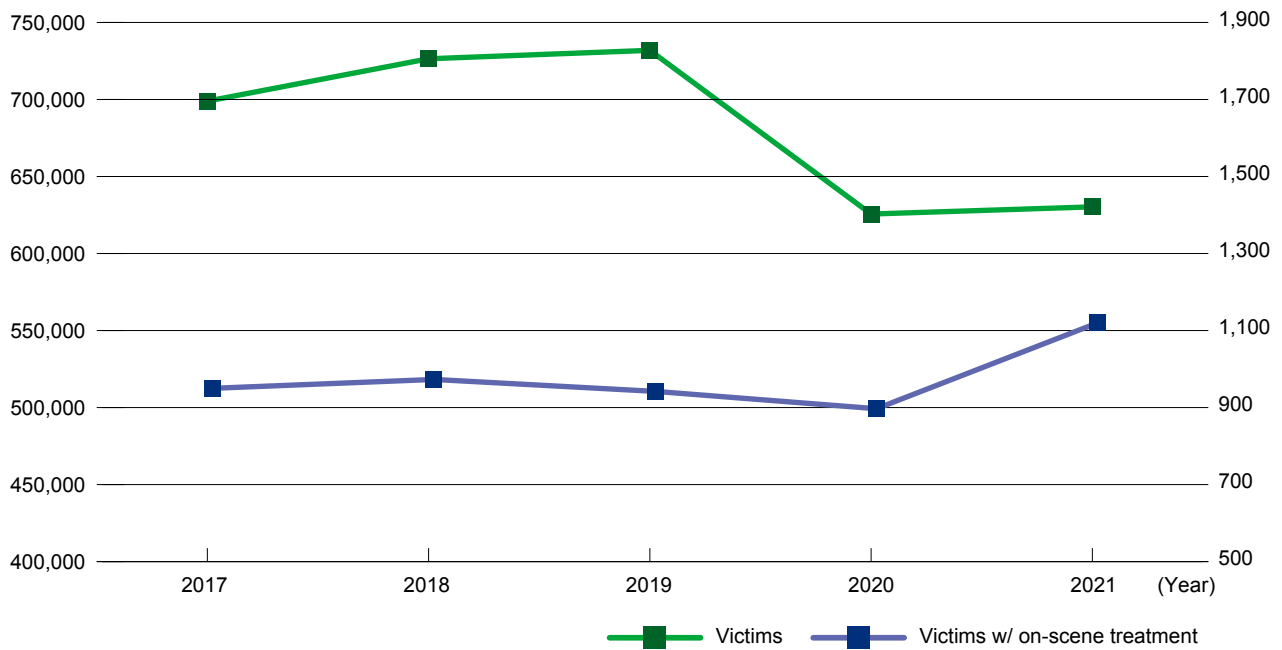


2. PATIENT TRANSPORT

(1) 5-year Change in EMS Transportation (2017-2021)

The number of people transported by ambulances (the patients transported to medical institutions) was 630,287 in 2021, and the number of people treated at incident scenes (the patients who received first-aid treatment but were not transported to medical institutions) was 1,120. This means EMS teams attended to a total of 631,407 people.

Chart 2-1. Change in EMS Transportation



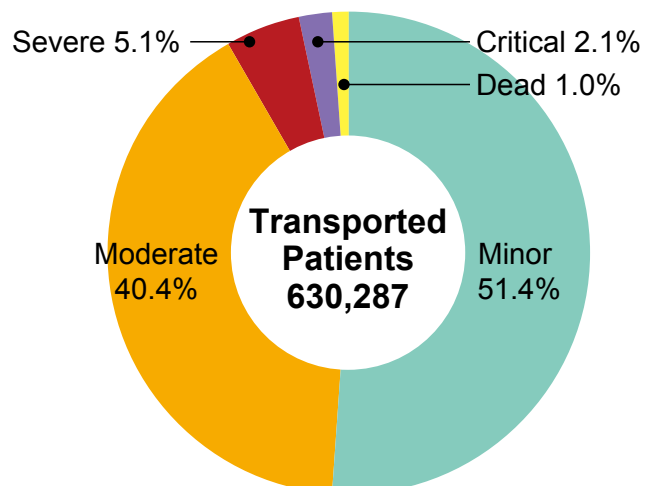
(2) Transported Patients

1 Degree of Severity at Primary Diagnosis

More than half the people transported in “minor” conditions, and “minor” and “moderate” conditions accounted for more than 90% of the total.

Chart 2-2-1. Transported Patients by Degree

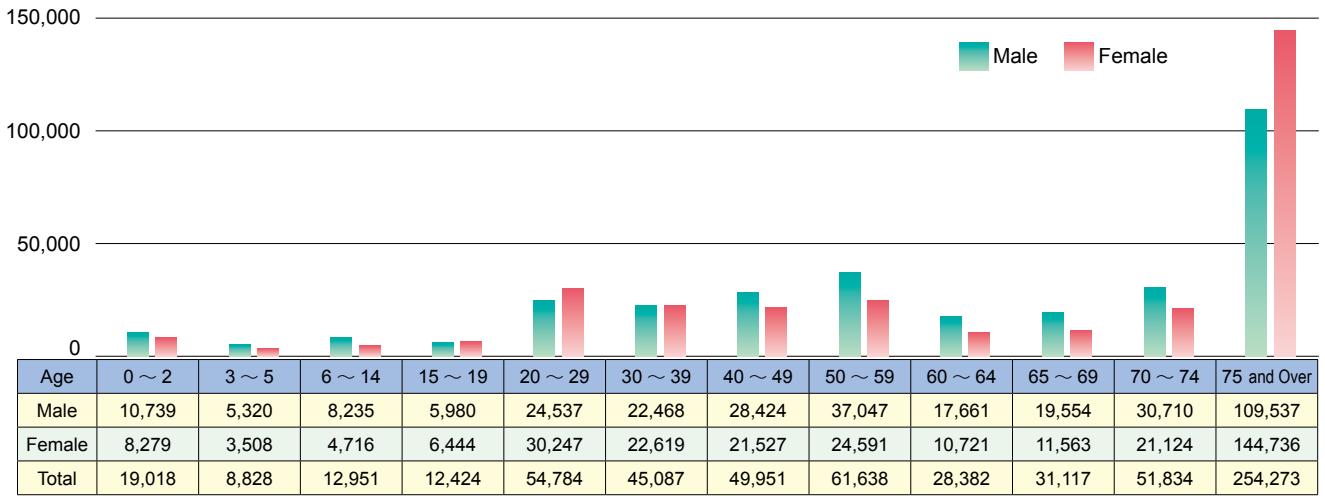
Degree	Transported Patients	Rate
Minor	323,857	51.4%
Moderate	254,504	40.4%
Severe	32,187	5.1%
Critical	13,388	2.1%
Dead	6,351	1.0%
Total	630,287	100.0%



2 Age Group

In terms of age group, the rate of the transported people aged 75 and over was the highest in 2021.

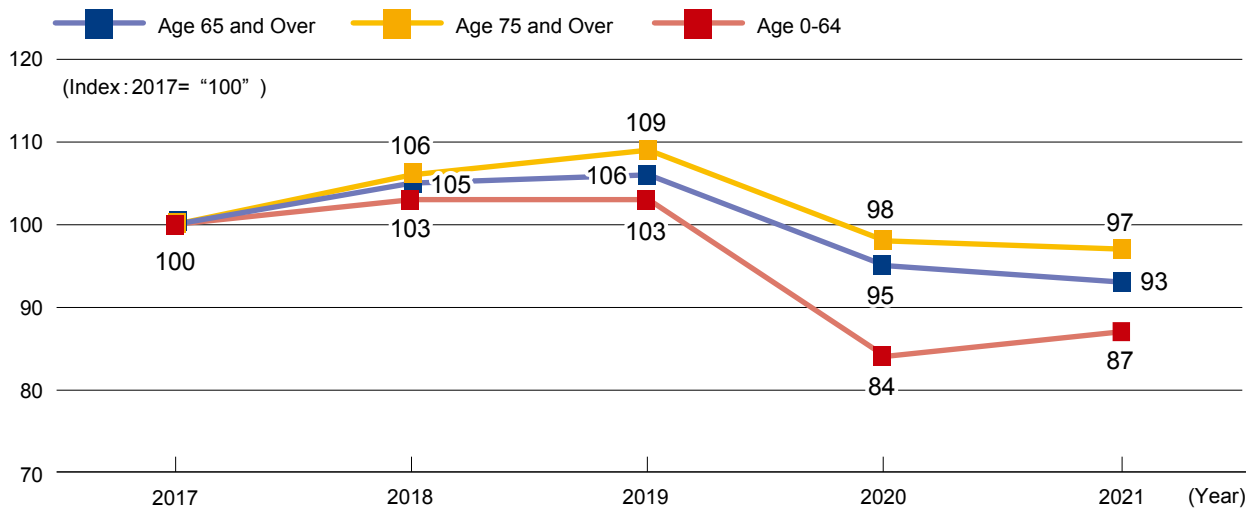
Chart 2-2-2. Transported Patients by Age Group / Gender



3 5-year Change in Number of Transported Elderly Patients (2017-2021)

A total of 337,224 elderly people aged 65 and over were transported in 2021, which accounted for 53.5% of the total.

Chart 2-2-3. Change in Transported Elderly Patients



	2017	2018	2019	2020	2021
Total Transported Patients	698,928	726,428	731,900	625,639	630,287
Age 65 and Over	361,734	378,314	383,856	342,085	337,224
Age 75 and Over	262,828	278,019	286,061	256,451	254,273
Age 0-64	337,194	348,114	348,044	283,554	293,063
Rate of Age 65 and Over	51.8%	52.1%	52.4%	54.7%	53.5%

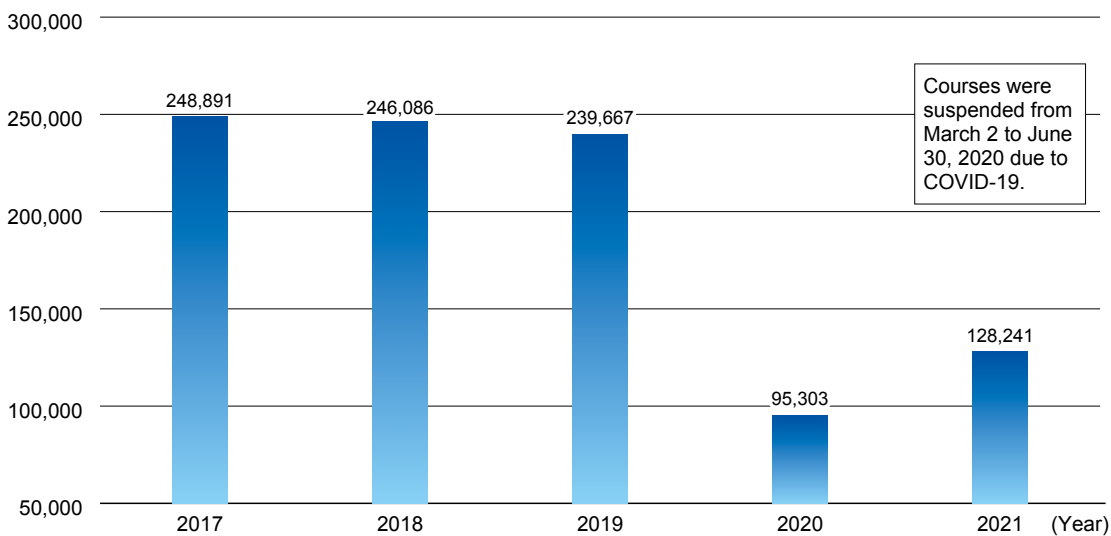
3. BYSTANDER FIRST AID

(1) Change in Lifesaving Course Trainees

The number of the participants in lifesaving courses (standard lifesaving courses, advanced lifesaving courses, and first-aid courses) accounted for 128,241 in 2021. The total number of participants, including those in emergency relief courses, accounted for 190,802.

There were cases where people with cardiac arrest received first-aid treatment, such as chest compressions or AEDs, from bystanders (12.7%) on the spot and those who did not receive treatment (4.6%). The survival rate of those who received first aid was approximately three times higher one month later than those who did not (in 2021). It is recommended to take lifesaving courses and learn first aid.

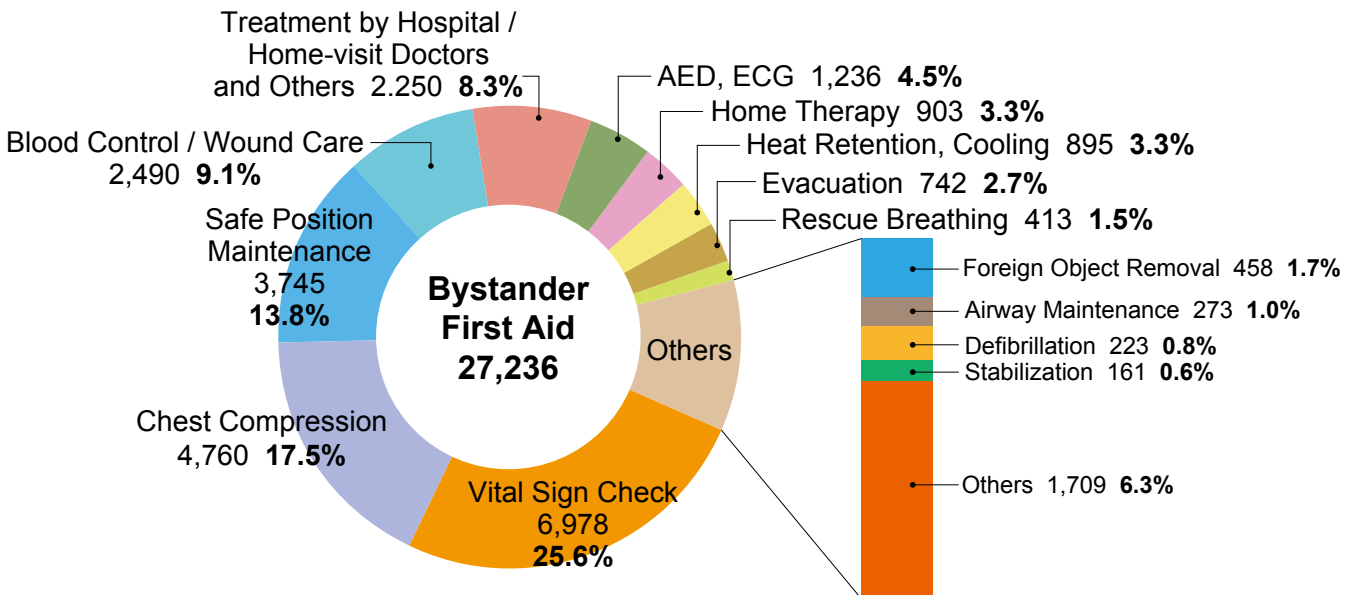
Chart 3-1. Lifesaving Course Trainees
 (Standard*, Advanced* and Instructor* Courses)
 *With retrainees included



(2) First Aid

Before the arrival of EMS crews, there were 27,236 cases of first-aid treatment by family members, friends, neighbors, etc.

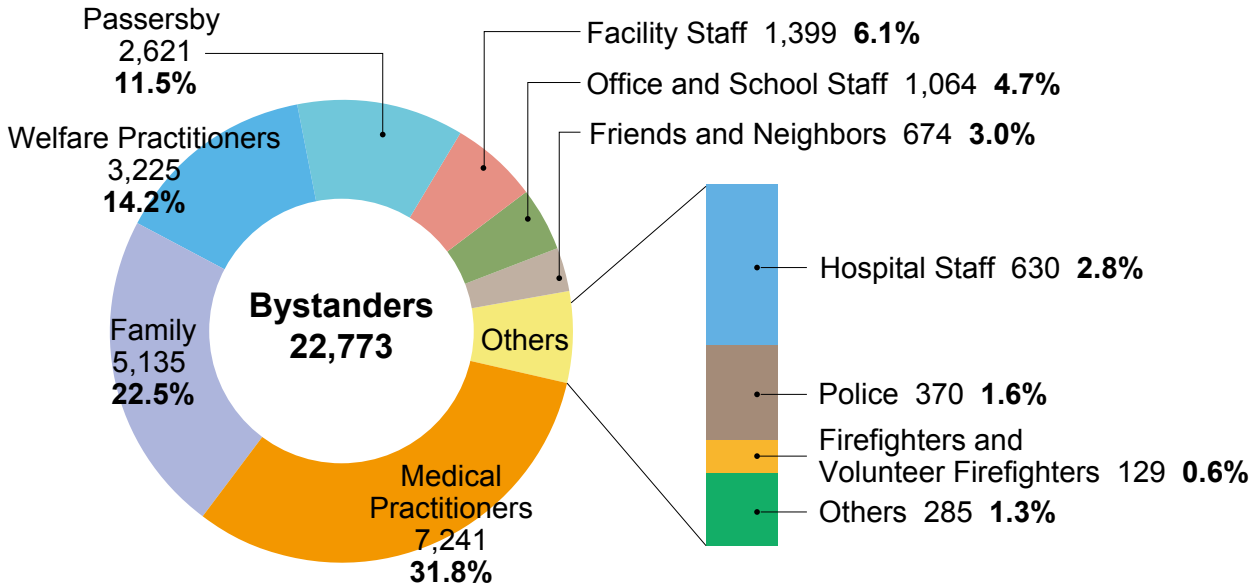
Chart 3-2. Bystander-Initiated First Aid



(3) Bystander-initiated First Aid

A breakdown of residents, etc. who performed first-aid treatments shows that medical practitioners accounted for the highest number, followed by family members. It is recommended to take lifesaving courses for saving the lives of your loved ones.

Chart 3-3. Bystanders



4. #7119 Emergency Telephone Consultation Center



The “#7119” TFD Emergency Telephone Consultation Center gives advice on the phone to sick / injured people about what to do — to call an ambulance or go to the hospital or not, which hospital is most suitable, and so on.

(1) Telephone Consultation

The following table shows the responses of the Emergency Telephone Consultation Center for the past three years, classified by consultation content.

Chart 4-1. Consultation Details

Year	Total	Hospital Information Guidance	Emergency Medical Consultation	Forwarded to "119" (EMS Request)		Others
				Forwarded to "119" (EMS Request) after talking	Forwarded to "119" (EMS Request) in no time	
2021	362,392	124,228	236,757	38,755	719	688
2020	362,454	140,261	221,379	34,392	664	150
2019	417,013	184,425	231,686	31,412	717	185

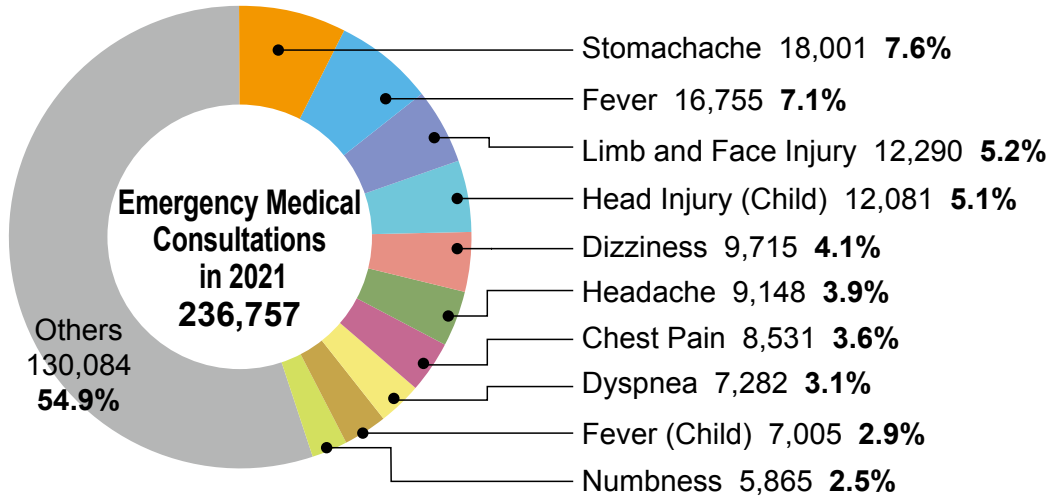
*Number of emergency requests transferred to the Fire Department (dial 119) before connecting the calls to emergency consultation nurses based on the callers' requests or the contents of the calls.

(2) Consultation Details

The graph below shows a breakdown of the emergency consultations out of the calls that the Center received in 2021.

The percentage of the consultations on stomachache and fever resulted in high numbers.

Chart 4-2. Details



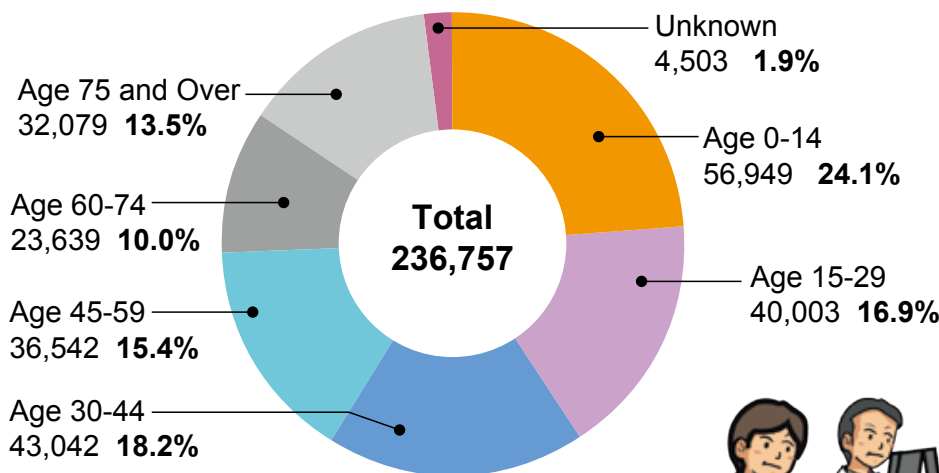
(3) Health Consultation by Age Group

The following graph shows the age structure of the people that callers consulted about in 2021. The percentage of those who consulted about children aged 0 to 14 is increasing.

The age structure of the people aged 75 and over, as the subjects of consultation, was 13.5%. In terms of the rate of the people transported by ambulances, those aged 75 and over accounted for 40.3% of the total.

Dial “#7119” if you are not sure whether or not to call an ambulance.

Chart 4-3. Health Consultation by Age Group



Disaster Preparedness Activities

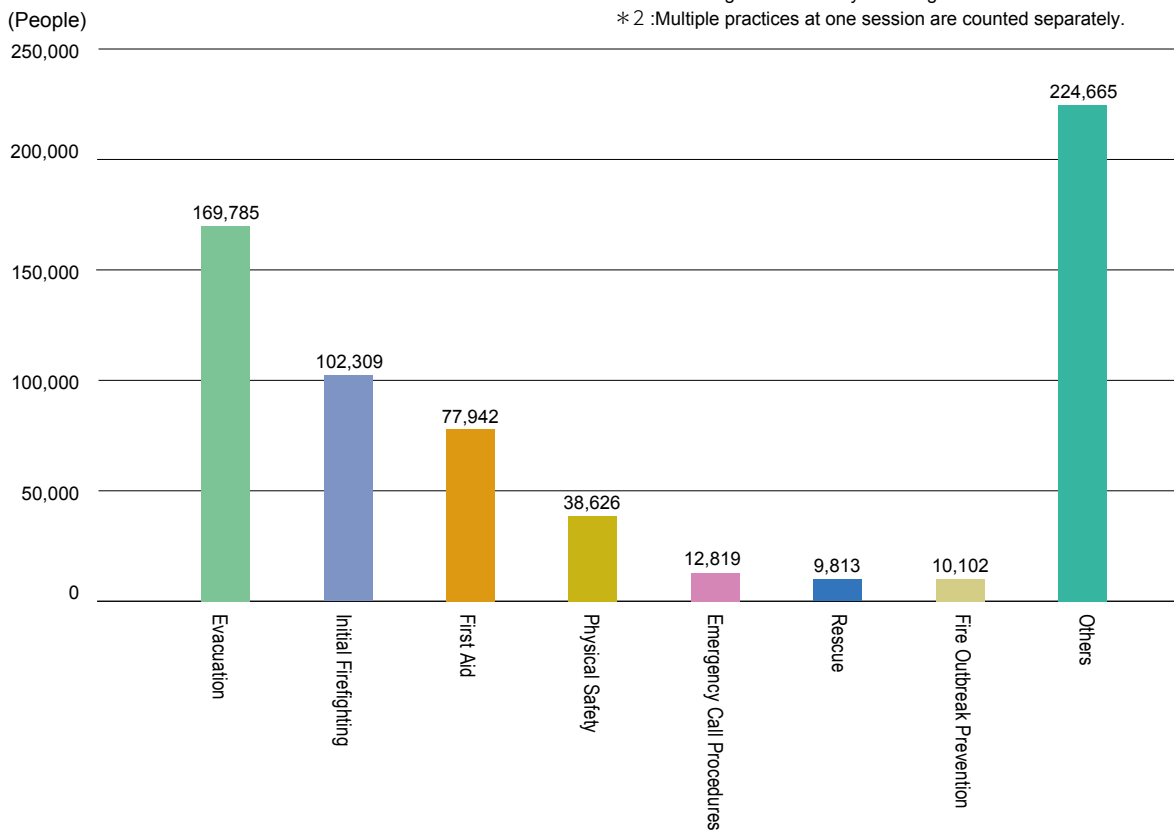
1. Training for Fire Safety and Disaster Preparedness

(1) Fire Safety Practices

Within the TFD's jurisdiction, 5,340 drills were conducted in 2021, with 486,875 people participating. Evacuation drills were the most common, followed by initial firefighting drills and first aid training.



Chart 1-1. Trainees and Practice



(2) Comprehensive Life Safety Education Sessions

Within the TFD's jurisdiction in 2021, 3,696 sessions of "comprehensive life safety education" were held, and 420,337 people participated. The TFD collaborates with educational institutions to provide comprehensive life safety education that takes advantage of all opportunities, including child pick-up training and community events.

* "Comprehensive life safety education" is the disaster preparedness education provided according to the developmental stage of children to protect them from various disasters and accidents.

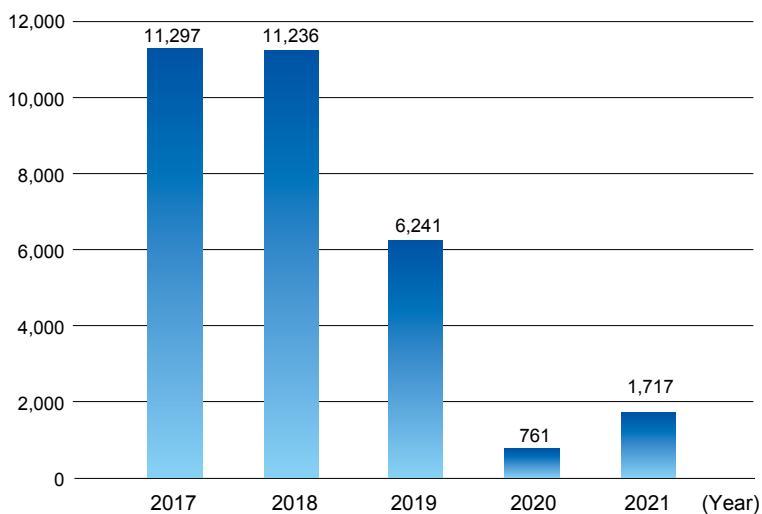
Chart 1-2. Participants in Comprehensive Life Safety Education Sessions

	Sessions	Participants
Preschools/ Kindergartens	787	56,472
Elementary Schools	1,578	238,137
Junior High Schools	457	46,464
High Schools	226	53,214
Universities	44	4,346
Special Education Support Schools	63	5,845
Others	541	15,859
TOTAL	3,696	420,337

2. Inspections for Fire Safety and Disaster Preparedness

In order to reduce any damage of elderly and disabled people in case of disasters, the TFD has been conducting comprehensive home inspections for fire safety and disaster preparedness in the jurisdiction of all fire stations since 2013. Fire personnel visit homes of people in need of assistance to check any possible dangers of fire breakout, earthquake damage and home accidents, etc., and they give advice. Since fiscal 2019, the number of inspections by fire stations decreased due to the COVID-19, and so the TFD conducted 1,717 inspections, up 956 from the previous year.

Chart 2. Inspections for Fire Safety and Disaster Preparedness



3. Daily Accidents

(1) Outline of 2021

1 Transported Patients by Year

Within the TFD's jurisdiction, 676,355 people were transported by ambulance due to daily life accidents during the five years from 2017 to 2021. The number of transported patients has been decreasing and it was 123,445 in 2021.

Chart 3-1-1. Transported Patients by Year

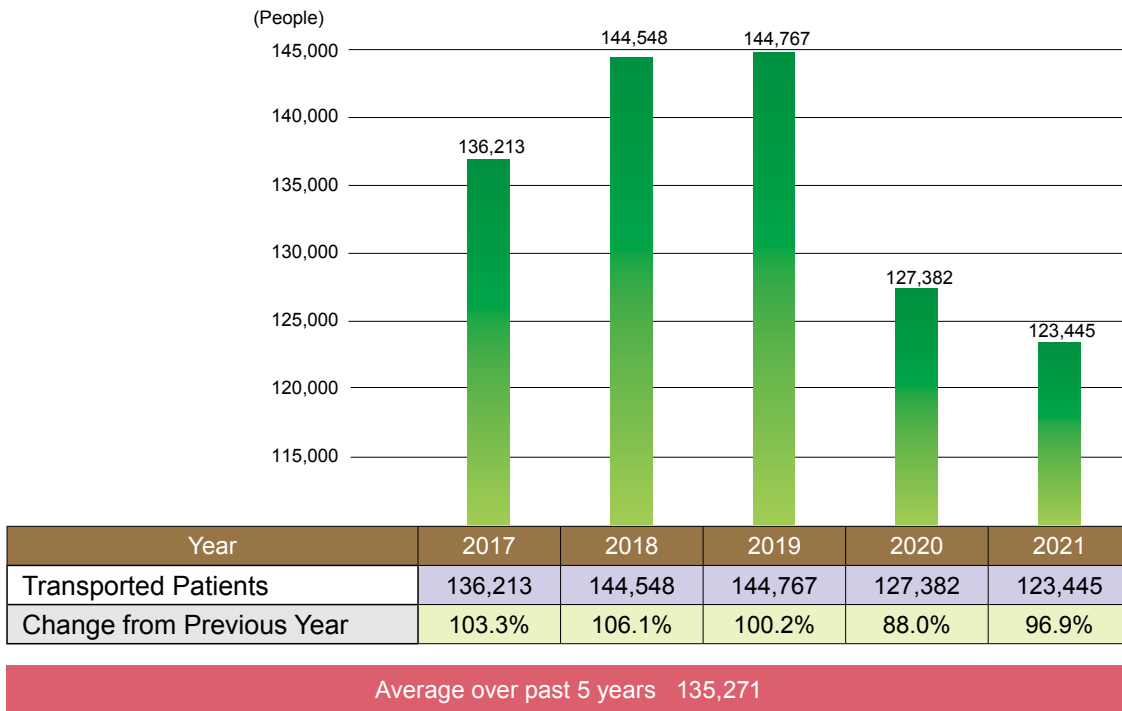
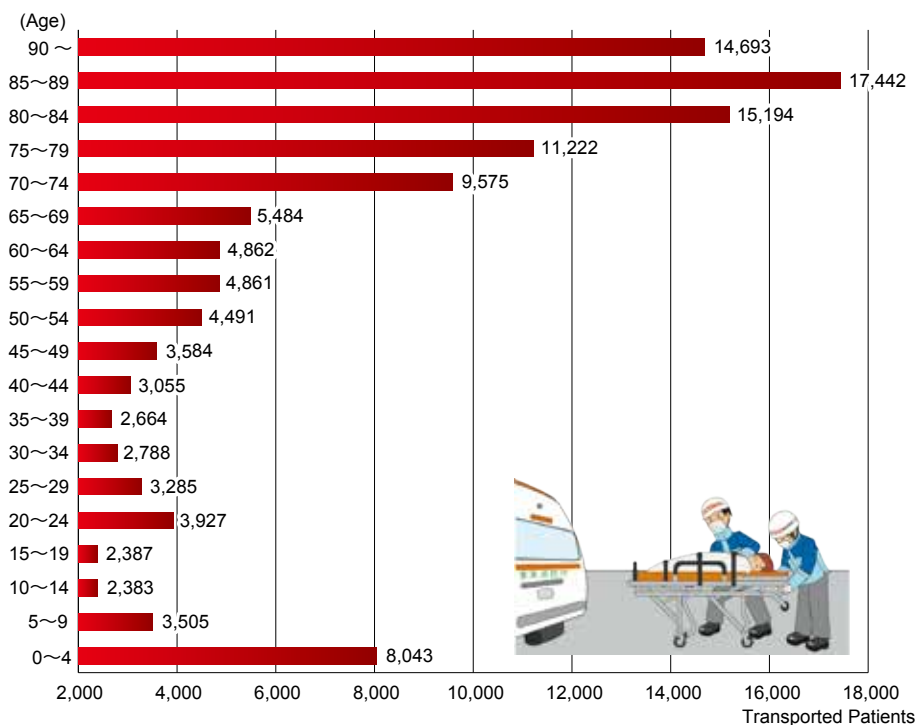


Chart 3-1-2. Transported Patients (Due to Daily Accidents) by Age Group



(2) Daily Accidents by Infant (Age 5 and Under)

(Japanese Tip)
Avoid Daily Life Dangers!
Protect Infants

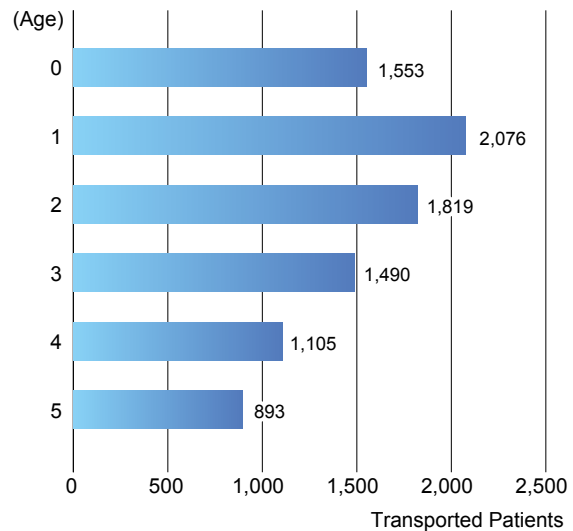


1 Transported Infant Patients

In 2021, the number of the one-year-old infants transported by ambulance reached 2,076 (the largest number), which was followed by 1,819 as the number of two-year-old infants.



Chart 3-2-1. Transported Infant Patients (Due to Daily Accidents) by Age

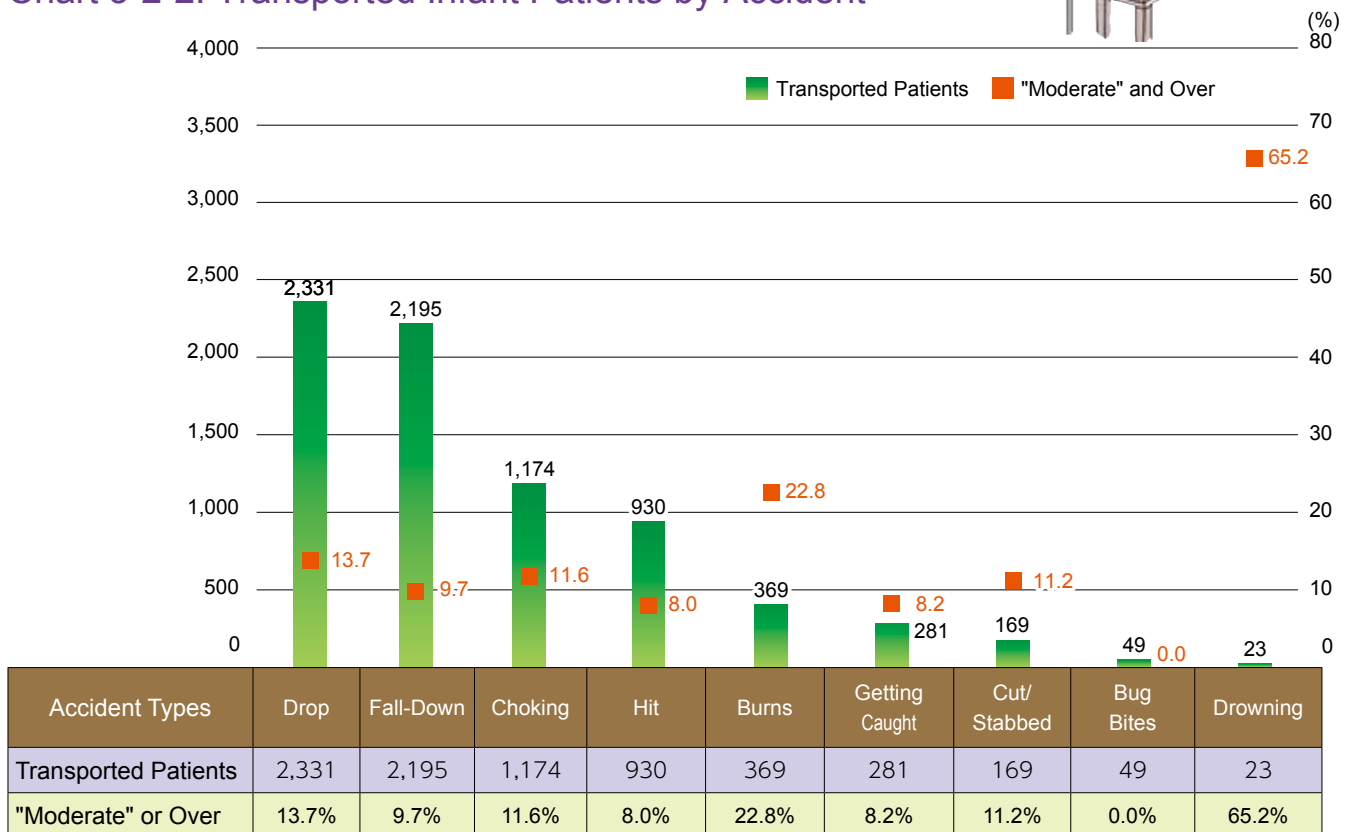


2 Transported Infant Patients by Accident

2,331 infants are transported because of Drop, which cause is the highest in number. Drowning, e.g. in baths, has an outstanding rate as 70% in "Moderate" and Over. Besides, 20% of Burns is diagnosed as "Moderate" and Over.



Chart 3-2-2. Transported Infant Patients by Accident



*Excluding "Others" and "Unknown"

**"Moderate": No acute danger to life but hospitalization needed



(3) Elders' Daily Accidents (Age 65 and Over)

(Japanese Tip)
Avoid Daily Life Dangers!
Protect Elders 【Outdoors】



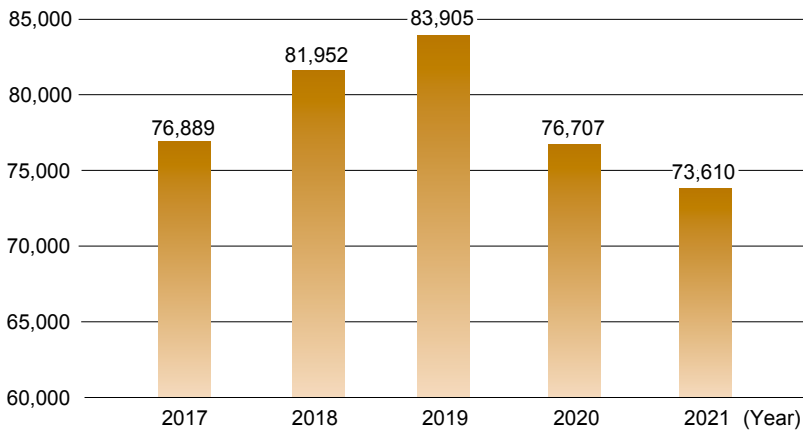
(Japanese Tip)
Avoid Daily Life Dangers!
Protect Elders 【Indoors】



1 Transported Elderly Patients by Age

Elderly people's accidents are decreasing. The number of ambulance-transported elderly people in 2021 was 73,610, down 3,279 from 2107.

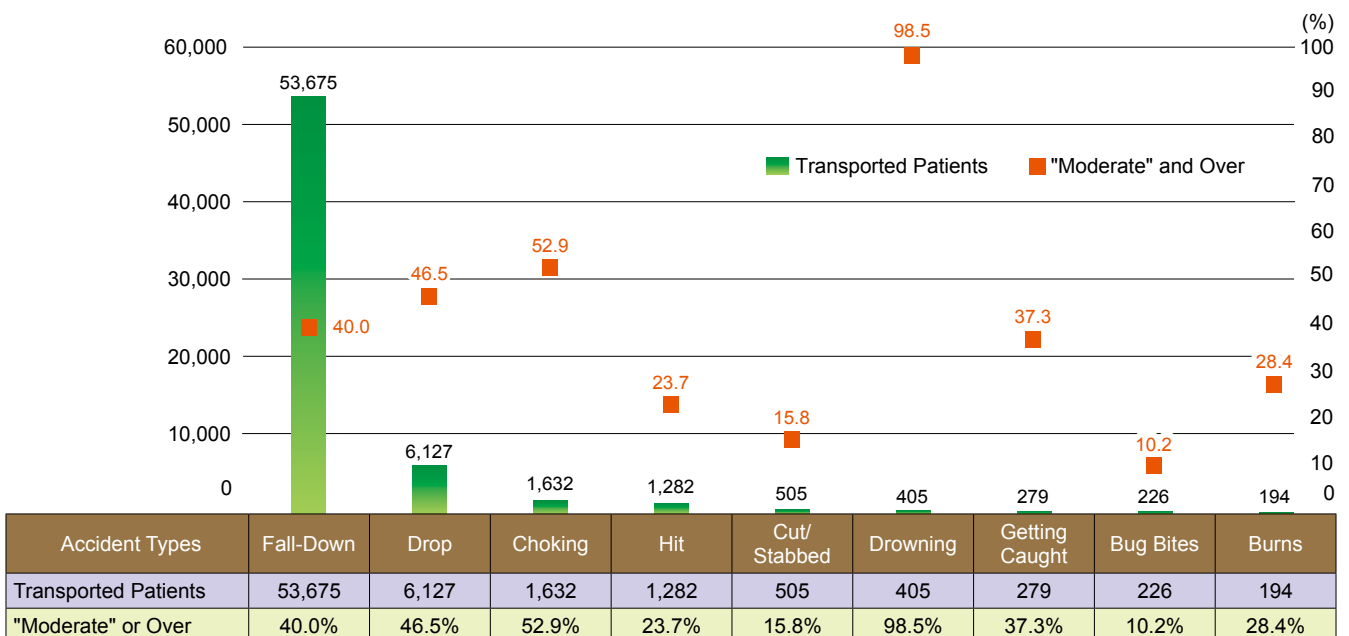
Chart 3-3-1. Transported Elderly Patients by Year



2 Transported Elderly Patients by Accident

The most common accidents of elderly people were Fall-Down as 53,675, which accounted for about 70% of all ambulance runs. Drowning, e.g. in baths, had a high rate in "Moderate" and Over, and the rate stands as high as 99%. The elderly are likely to suffer more than the young.

Chart 3-3-2. Transported Elderly Patients by Accident



*Excluding "Others" and "Unknown"

**"Moderate": No acute danger to life but hospitalization needed

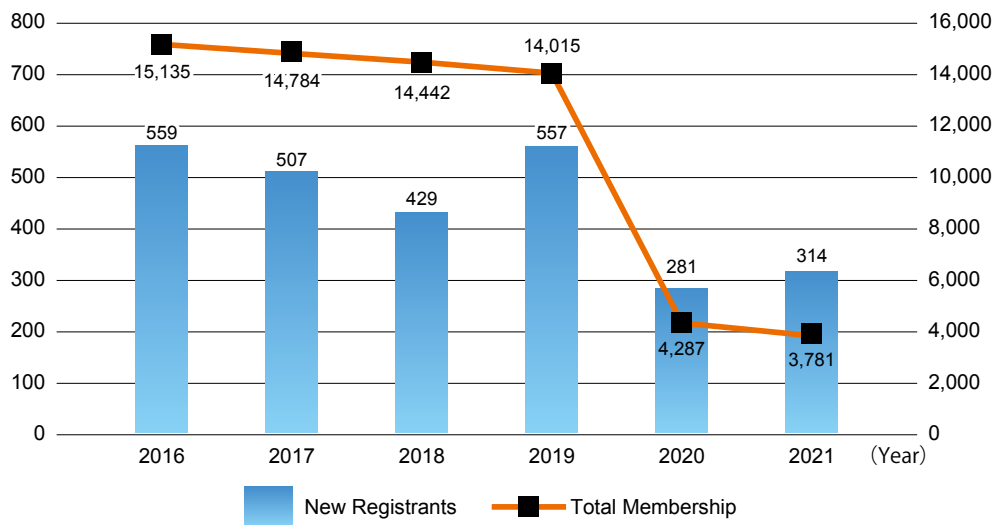
4. TFD Volunteers

(1) Membership

As a result of the overall updating of membership registration, the number of the registrants as of December 2021 proved to be 3,781. The renewal was conducted after the deliberations of issues by the TFD Volunteer System Review Committee.

The number of new registrants increased by 314 in 2021, which was 281 in 2020, because of the continued difficulty in PR activities due to COVID-19.

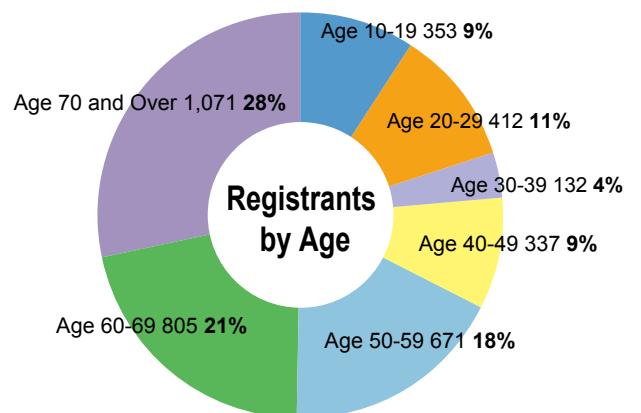
Chart 4-1-1. Total Membership and New Registrants



1 Registrants by Age

Taking a look into the number of registrations by age, the rate of Age 60 or older is as high as 49% of the total. The Elderly are also actively participating.

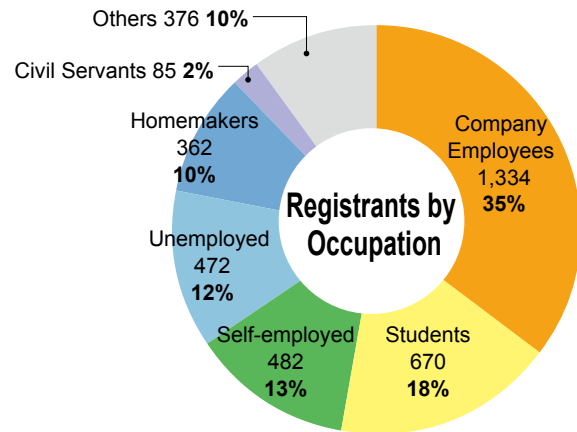
Chart 4-1-2. Registrants by Age Group



2 Registrants by Occupation

In registrations, the highest number is company employees at 35% followed by students, 18%, and self-employed, 13%. For students' registrations, there are many cases of recruitment during comprehensive life safety education and first aid courses. As an aside, some schools take bulk registrations for club activities/circle members as a group.

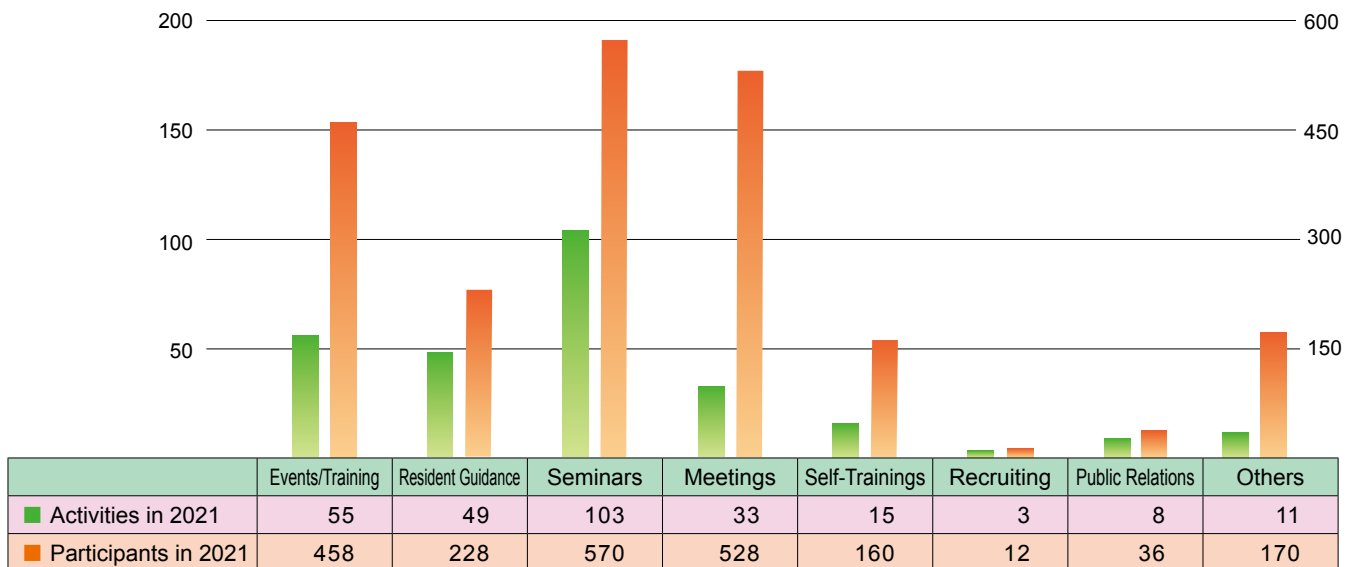
Chart 4-1-3. Registrants by Occupation



(2) Participants by Event and Activity

The total number of the events/activities that volunteer members participated in 2021 was 277, with 2,162 volunteers. Also, *Events /Training* accounted for the largest number in terms of activities and the number of participants.

Chart 4-2. Participants by Event and Activity in 2021



Fire Prevention

1. Fire Prevention Inspection

(1) On-site Inspections

On-site inspections are based on the Fire Service Act. Firefighters visit buildings and HAZMAT facilities to conduct inspections from the viewpoint of fire prevention.

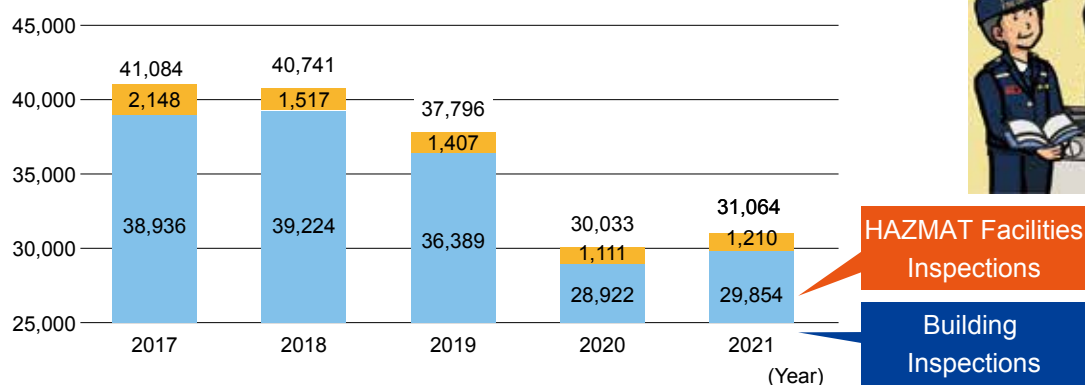
The number of on-site inspections conducted at buildings (excluding residences and tenements) and HAZMAT facilities (e.g., gas stations) was 31,064 in 2021.

Due to the building fire that occurred in Kita-ward, Osaka City, on the 17th of December, 2021, claiming a number of deaths and the injured, the TFD conducted on-site inspections and gave guidance to similar buildings in its jurisdiction together, to ensure safe measures for evacuation facilities.

The inspections such as post-firefighting operations, 11,964, confirmation, 1,331, downtown, 1,753, and venue management (e. g. , events), 702, were conducted.

On-site inspections were conducted by 719 inspectors and 1,131 pumper teams.

Chart 1-1. On-site Inspections



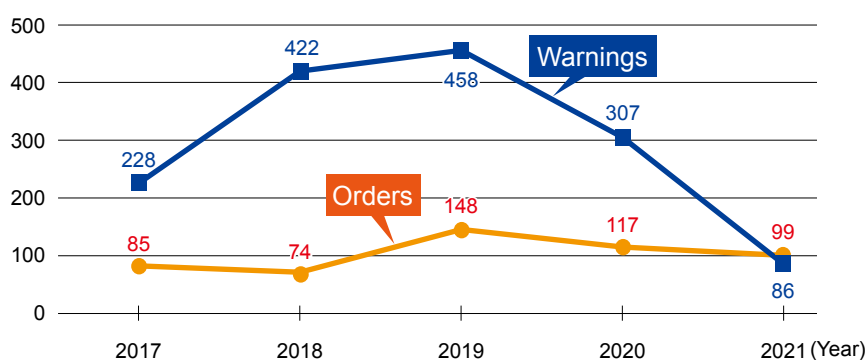
(2) Issued Warnings and Orders

When the TFD confirms the violation of the Fire Service Act at the buildings or HAZMAT facilities that have undergone on-site inspections, the TFD instructs the violators to correct the buildings or facilities.

The TFD strongly instructs and warns the violators who are not willing to refurbish their buildings or facilities as necessary, and issues orders in accordance with the Fire Service Act.

The graph below shows the changes in the number of warnings and orders issued. In 2021, the TFD issued 86 warnings and 99 orders.

Chart 1-2-1. Issued Warnings and Orders

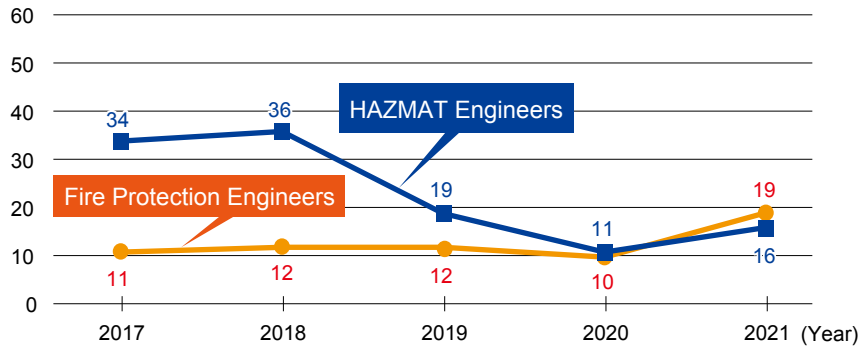


1 Licensed HAZMAT and Fire Protection Engineers in Receipt of Violation Notifications

If the TFD has confirmed that licensed HAZMAT/ fire protection engineers engaged in acts in violation of the Fire Service Act, the TFD shall notify them of the violations and instruct them not to reoccur.

The graph below shows the changes of the licensed engineers in receipt of violation notifications.

Chart 1-2-2. Licensed Engineers in Receipt of Violation Notifications

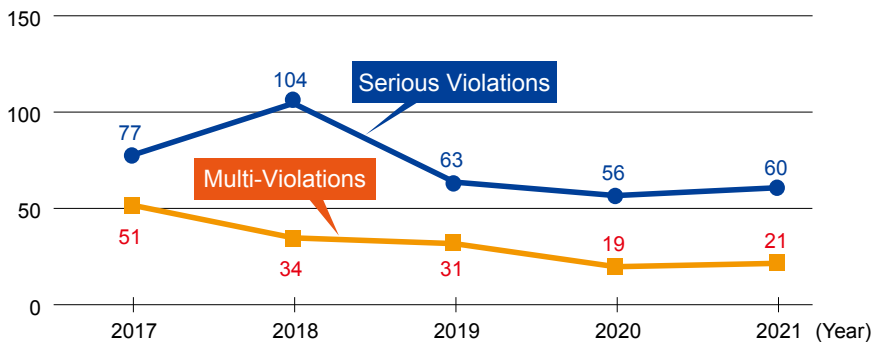


2 Buildings with Publicly Announced Violations

The public announcement system provides information on the violations that the TFD found through on-site inspections so that the people who will use the buildings (excl. residences and tenements) can obtain safety information and see their safety before its use. The violations subject to public announcements are serious violations and multiple maintenance obligation violations. Serious violations are violations of installation obligations such as the absence of indoor fire hydrants, sprinklers, or automatic fire alarms. Multiple maintenance obligation violations are repeated violations for building and fire equipment maintenance by building owners.

The graph below shows the changes in the number of the buildings publicly announced each year. The TFD provides thorough guidance to urge quick correction of the announced violations, and the number of buildings in violation is decreasing.

Chart 1-2-3. Change in Number of the Buildings with Publicly Announced Violations



(3) Fire Safety Building Certificate (Excellence Mark)

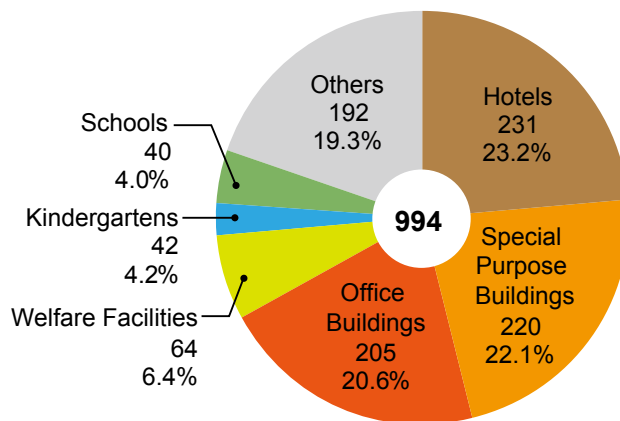
The fire safety building certification (Excellence Mark) system issues a fire safety building certificate to be displayed on a building. It can be issued if Fire Station Chief recognizes the high fire safety level of the building based on the application from the party concerned with the building.

As of December 31, 2021, there were 994 buildings with certification, and the graph below shows a breakdown of the buildings classified by usage.



Fire Safety Building Certificate

Chart 1-3. Fire Safety Buildings



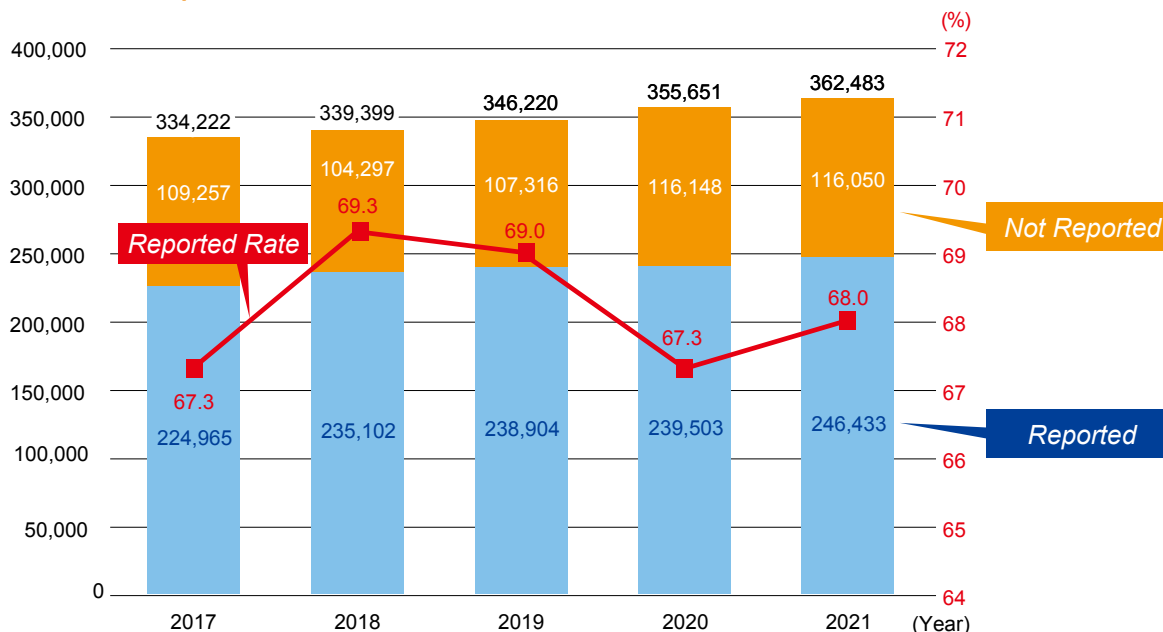
*Due to statistical rounding, the summation may not be 100%.

(4) Inspection Reporting

1 Fire Protection Equipment Inspection Report System

The inspection reporting system for firefighting equipment obligates the parties concerned with buildings to inspect or have qualified personnel inspect firefighting equipment, such as fire extinguishers, automatic fire alarms, and the sprinklers installed in the buildings, and to report the results to the Fire Station Chief.

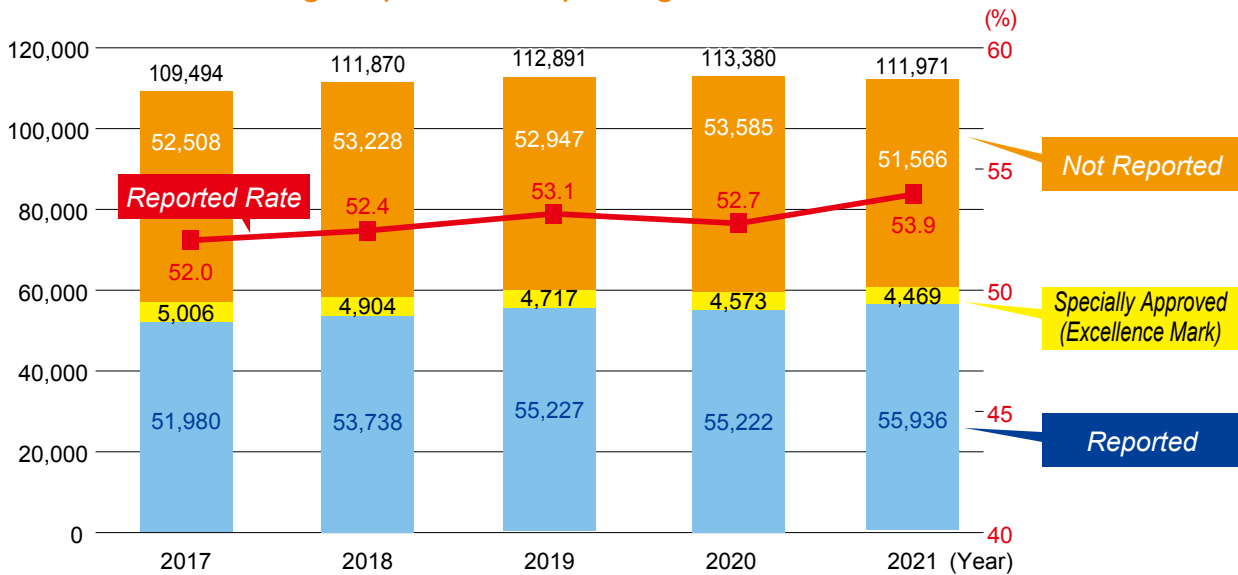
Chart 1-4-1. Report Results



2 Fire Prevention Property Inspection and Report System

The system was established with lessons learned from the building fire in Kabuki-cho, Shinjuku in 2001. The system requires the tenant manager to have the qualified inspector check how the building has been managed in terms of fire protection. The result is to be reported to the local fire station chief. The building showing successful achievement for three years can be exempted from inspection for three years from then or through the authorities' judgement. ("Specially Approved")

Chart 1-4-2. Building Inspection Reporting

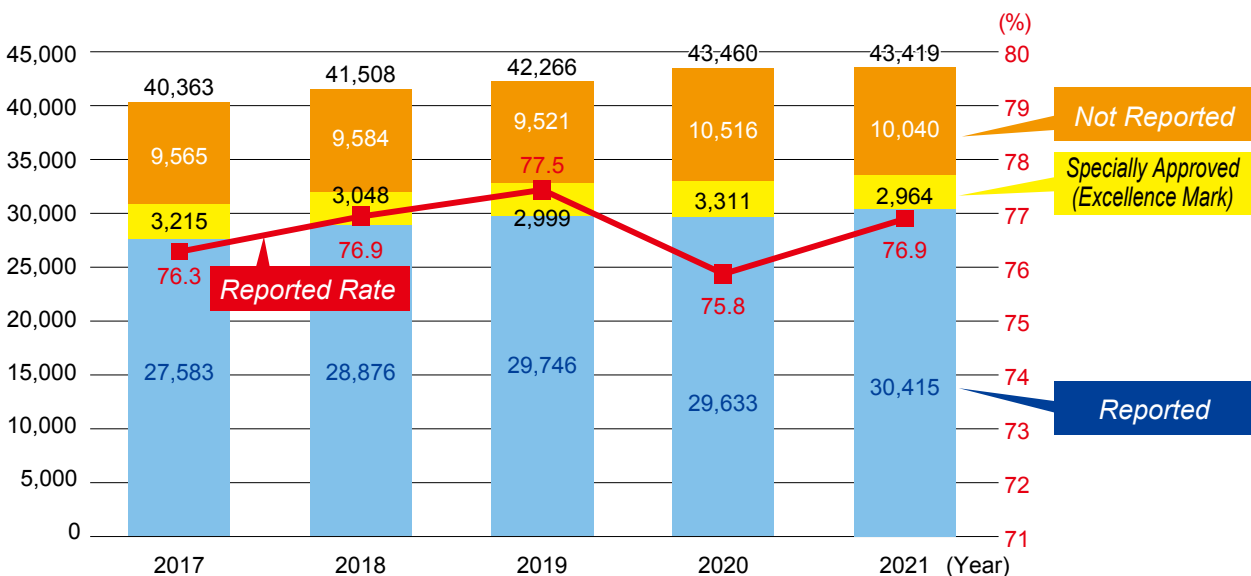


*Reported Rate includes Specially Approved.

3 Disaster Protection Management Inspection and Report system

The System requires the tenant manager (of a law-stated "large" building) to have the qualified inspector check how the building has been managed in terms of earthquake and terrorism preparedness. The result is to be reported to the local fire station chief. The building showing successful achievement for three years can be exempted from inspection for three years from then on through the authorities' judgement. ("Specially Approved")

Chart 1-4-3. Disaster Protection Management Inspection Reporting



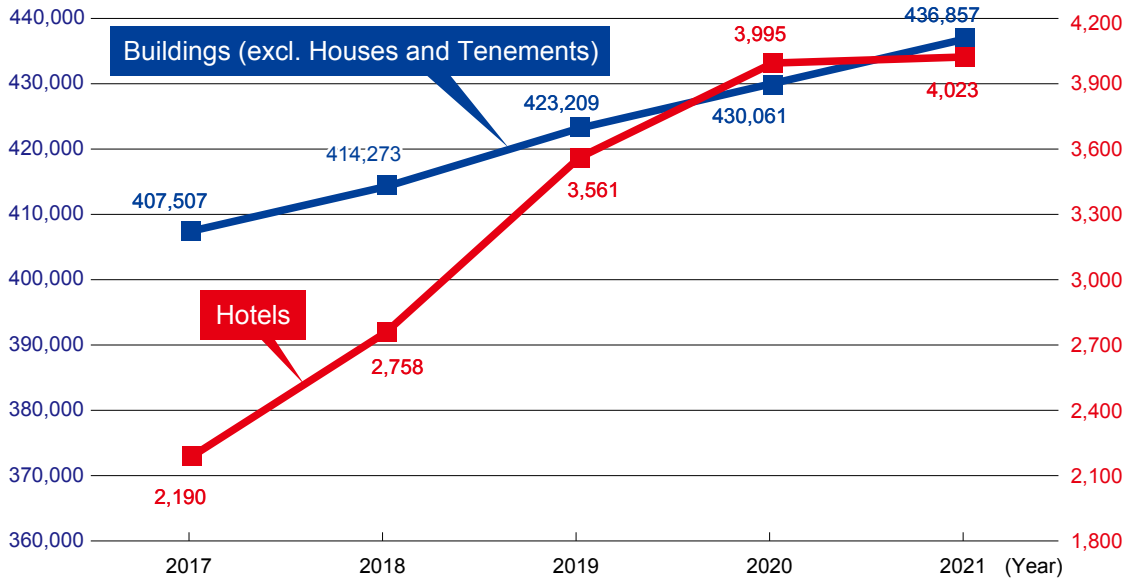
*Reported Rate includes Specially Approved.

2. Change in Number of Buildings and Fire Prevention Managers

(1) Change in Number of Buildings

As of the end of December 2021, there were 436,857 buildings (excl. houses and tenements) and 4,023 hotels within the TFD jurisdiction. Compared with 407,507 buildings and 2,190 hotels in 2017, the number of buildings, 29,350 (7.2%), and that of hotels, 1,833 (83.7%), are both increasing.

Chart 2-1-1. Buildings (excl. Houses and Tenements) and Hotels

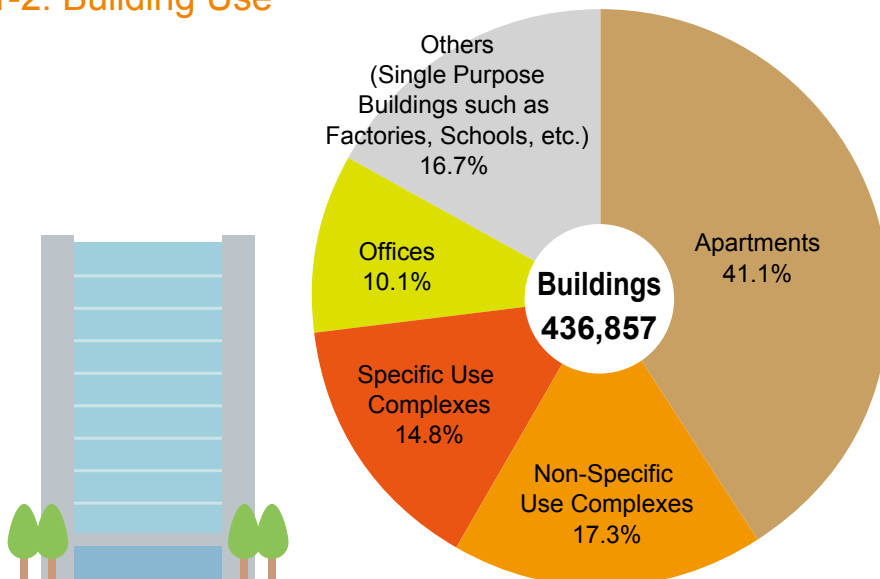


*The hotels are counted under Table 1, Fire Service Ordinance.

Recently the number of hotels has been increasing because the foreign inbounds was expected to increase by the Tokyo 2020 Games and sightseeing.

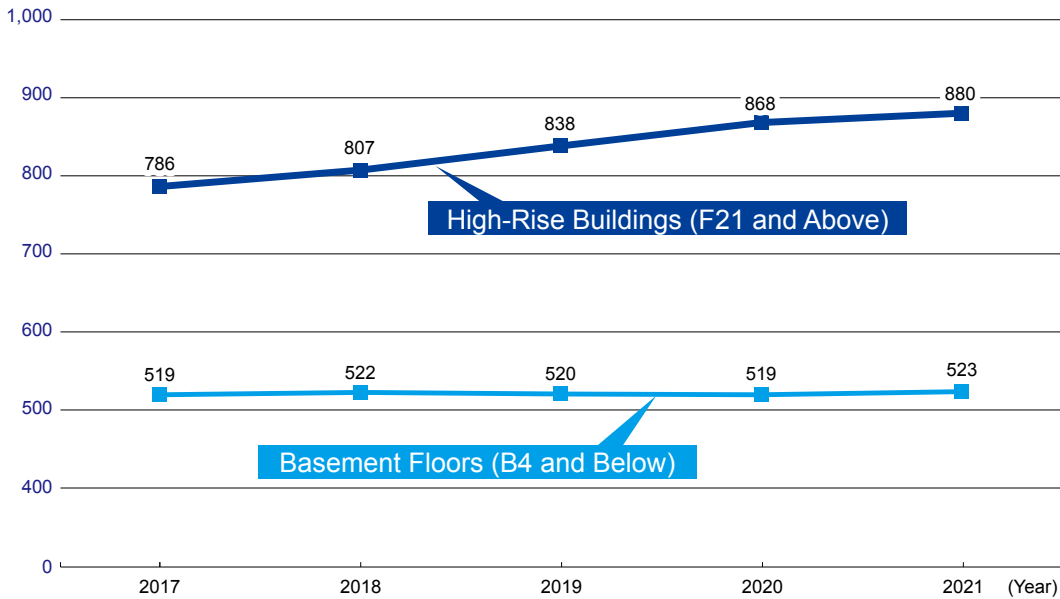
70% of the total building (436,857) occupies Apartments (179,514, 41.1%), Non-Specific Use Complexes (75,776, 17.3%), e.g. apartment and office combined buildings and Specific Use Complexes (64,502, 14.8%), e.g. commercial facility and restaurant combined buildings.

Chart-2-1-2. Building Use



*Due to statistical rounding, the summation may not be 100%.

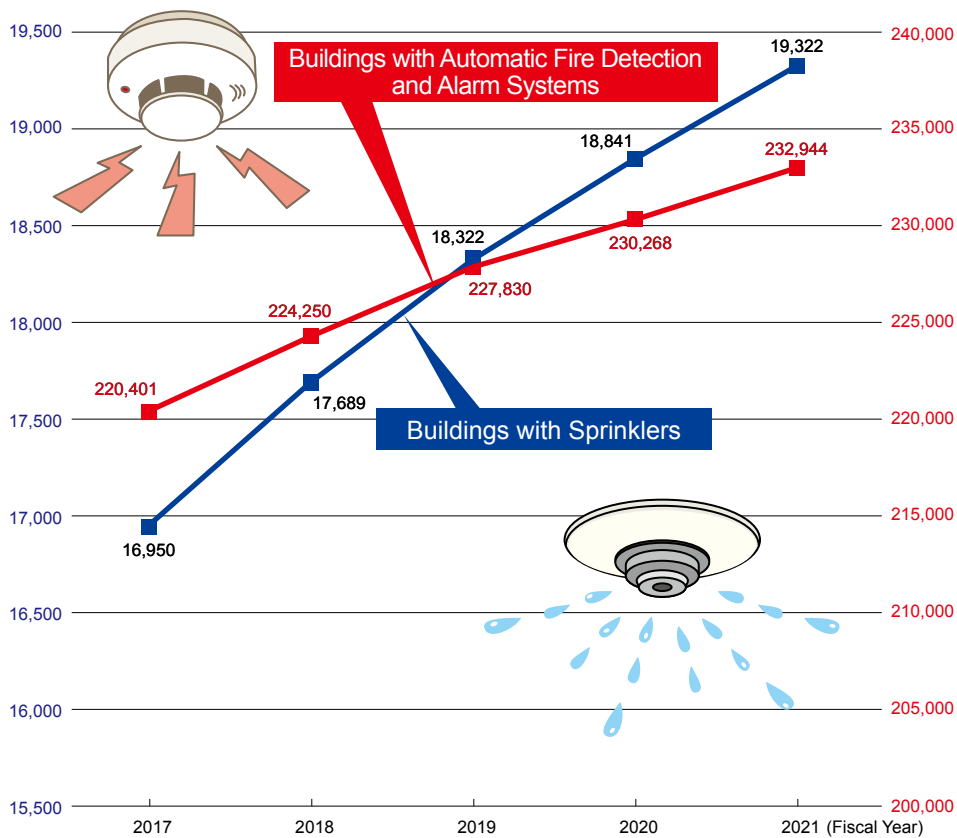
Chart 2-1-3. High-Rise Buildings (F21 and Above) and Buildings with Basement Floors (B4 and Below)



Buildings within the TFD jurisdiction are getting high-rised, large-scaled and deeper in ground. Still today, the urban redevelopment is in progress and large-scale buildings are under construction.

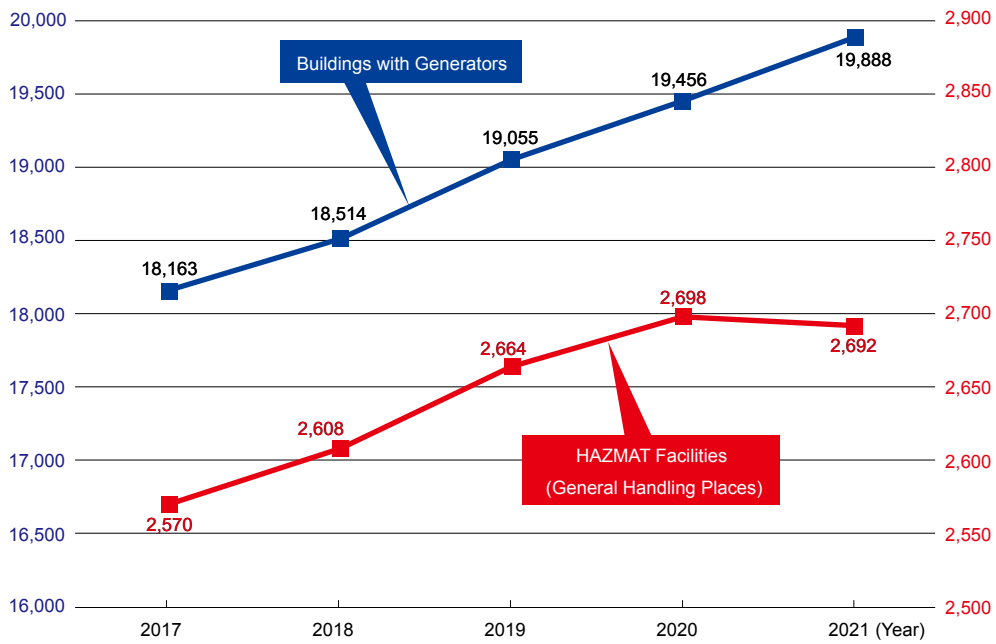
*31m and higher buildings are defined as high-rise under the Fire Service Law; however, to express buildings higher, we sum up the ones with 21 stories (roughly 60m) and higher.

Chart 2-1-4. Buildings with Sprinkler and Automatic Fire Detection and Alarm Systems



The increase of buildings installed sprinkler and automatic fire detection and alarm systems is because 11-story and higher or 31m and higher buildings in which those systems are required to install has accelerated constructed more. Also, the Fire Service Law was revised in 2015. The automatic fire detection and alarms and sprinkler systems are required installations for small-scale social welfare facilities, the automatic fire detection and alarm system for hotels and the sprinkler system for clinics. These are the factors for the increase.

Chart 2-1-5. Buildings with Generators and HAZMAT Facilities (General Handling Places)



*The number of HAZMAT facilities (General Handling Places) are as of the end of each year.

General Handling Facilities are where designated quantity or larger amount of hazardous materials at power plants, boiler facilities and paint plants or paintings are consumed.

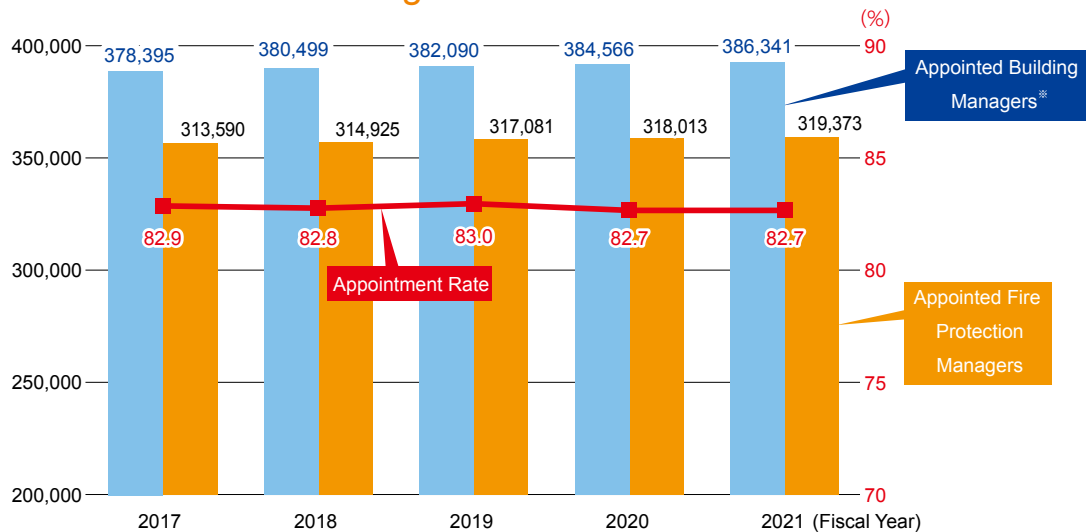
After the East Japan Earthquake, companies tend to install backup power supply systems and fuel storage tanks for the BCP and earlier recovery.



(2) Fire Protection Managers

As of the end of fiscal 2021, there were 386,341 establishments obligated to appoint fire protection managers. In recent years, the number of establishments has been increasing. The rate of the appointment of fire protection managers at the end of fiscal 2021 was 82.7%. In recent years, the appointment rate has been around 83%.

Chart 2-2. Fire Protection Managers



*Appointed Building Managers have authority over the buildings under Article 8 of the Fire Service Law.

3. Private Fire Brigade Training

Private Fire Brigade training is mandatory at least twice a year at business establishments where an unspecified number of people visit, such as department stores, hospitals, hotels, theaters and underground station buildings.

Due to COVID-19, the number of trainings as well as the TFD's on-site guidance decreased in 2020. However, it revived up to the annual average in 2021. It is most likely that business establishments adapted to the "New Normal" and independently conducted their training efforts.

Chart 3. Private Fire Brigade Training

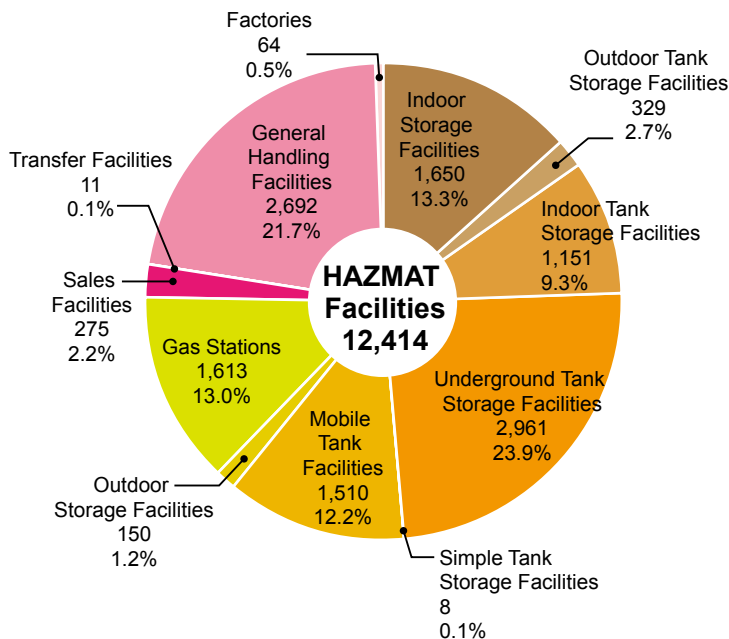
	Total (Cumulative Number of Times)	Comprehensive Training	Partial Training			Others	Training Participants (Hundred)	Trainers (People)
			Emergency Call Procedures	Firefighting	Evacuation			
2017	137,723	94,792	2,713	10,800	21,335	8,083	81,668	45,631
2018	144,096	99,515	2,781	11,572	22,159	8,069	84,740	45,287
2019	151,860	105,656	2,397	11,191	21,714	10,902	86,205	40,611
2020	134,831	91,987	2,306	10,375	20,680	9,483	68,200	10,956
2021	150,828	97,447	2,388	13,375	25,035	12,583	81,853	12,327

4. HAZMAT Administration

(1) HAZMAT Facilities by Category

HAZMAT facilities are classified according to each facility type. In terms of each facility type, the number of underground tank storage facilities was the largest with 2,961 facilities, followed by 2,692 general handling facilities and 1,650 indoor storage facilities as of the end of fiscal 2021.

Chart 4-1. HAZMAT Facilities



(2) HAZMAT Accidents by Category

The number of HAZMAT accidents was 124 in 2021, up 1 from the previous year. There were 33 fires (up 9 from the previous year), 20 leaks (up 1 from the previous year), and 71 other accidents (down 9 from the previous year). Although there were no deaths in these HAZMAT accidents, 3 people were injured (down 8 from the previous year).

Chart 4-2. HAZMAT Facilities Accidents by Category

Year	Total	Fires	Leaks	Others	Deaths	Injuries
2017	107	21	20	66	0	9
2018	114	30	32	52	0	16
2019	122	28	23	71	0	16
2020	123	24	19	80	0	11
2021	124	33	20	71	0	3
Change from 2020	1	9	1	▲9	0	▲8

(3) HAZMAT Accidents by Factor

The HAZMAT Accidents by Factor shows that 76 physical factors, 61.3% of the total, was the highest in numbers and 31 human factors, 25.0%, was the second highest. Followed by those, there were 17 Others, 13.7%.

Chart 4-3-1. Accidents

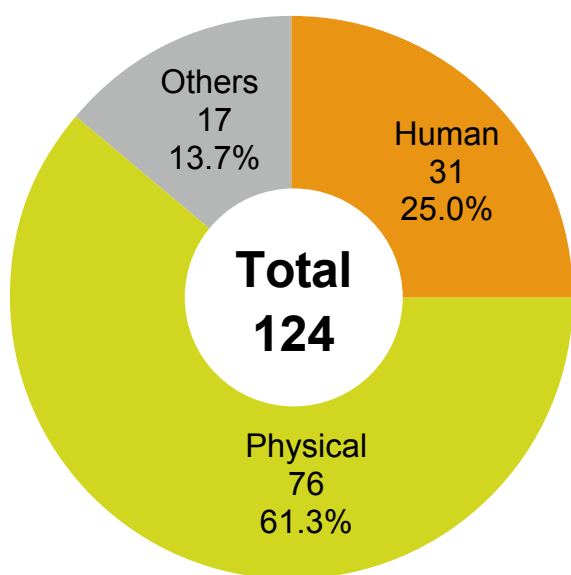


Chart 4-3-2. Factors and Causes

Factor	Cause
Human Factor	Inadequate Maintenance Incorrect Operation Inadequate Operation Checking Operation Undone Inadequate Monitoring
Physical Factor	Deterioration Defective Design Disorder Defects in Workmanship Breakage
Other Factor	Arson Traffic Accident Catch Fire Disaster (e.g. earthquake) Unknown (under investigation)

Chart 4-3-3. Fires

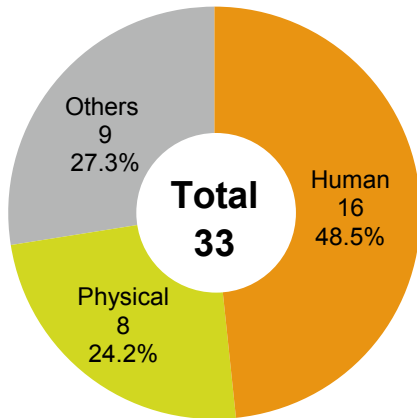


Chart 4-3-4. Leaks

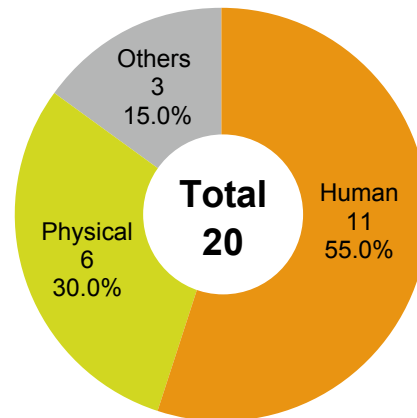
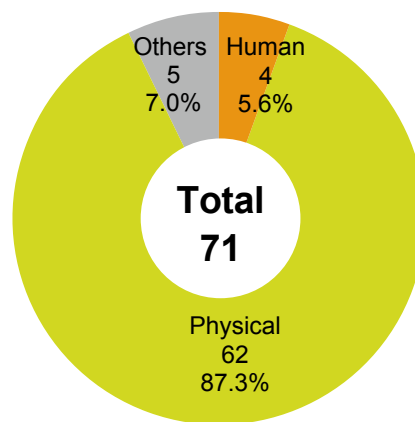


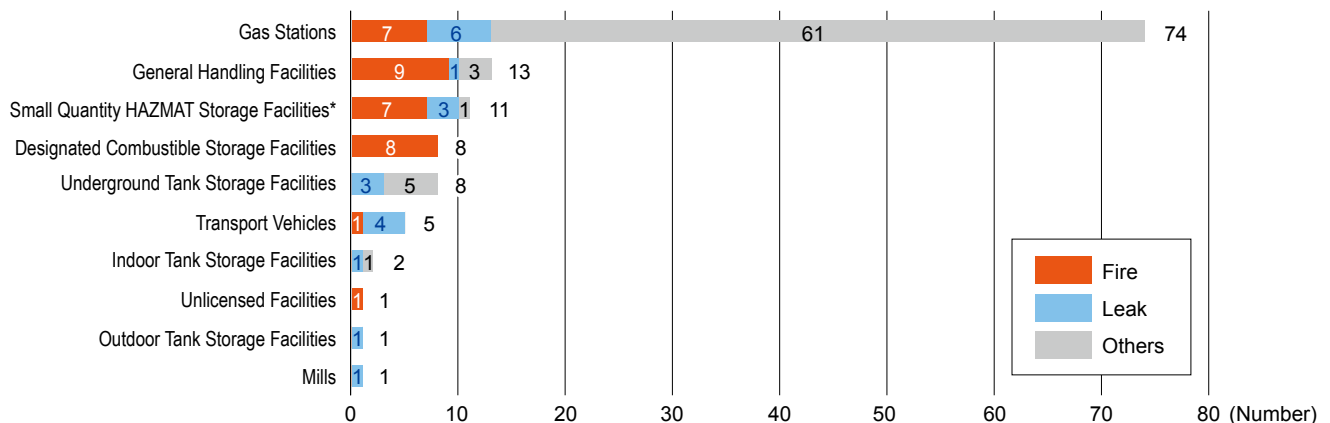
Chart 4-3-5. Other Accidents



(4) HAZMAT Facilities Accidents

In terms of the occurrence of accidents by facility types in 2021, there were 74 gas stations, up 1 from the previous year, and accounted for about half the total, followed by 13 general handling facilities, up 1 from the previous year, 11 designated combustible storage facilities, up 7 from the previous year, and 8 underground tank storage facilities, up 1 from the previous year. Many accidents at gas stations are caused by property damage accidents caused by driving mistakes. Be sure to drive safely on the premises of gas stations.

Chart 4-4-6. HAZMAT Facilities Accidents



* 2 fires of the unregistered Small Quantity HAZMAT Storage Facilities included.

ORGANIZATION

1. Resources

The TFD Personnel: **18,655** Fire Stations: **81**
 Fire Apparatus: **2,009**

(1) Personnel • Ranks

Chart 1-1. Personnel by Rank

(As of April 1, 2022)

Rank	Fire Chief	Deputy Fire Chief • First Assistant Chief	Assistant Chief • Battalion Chief	Fire Captain
Fixed Number of Personnel	1	21	413	1,538
Rank	Fire Lieutenant	Fire Sergeant	Firefighter	Others
Fixed Number of Personnel	4,599	5,421	6,240	422
Total	18,655			

(2) Budget / the TFD Main Policies

Chart 1-2-1. Planned Revenue

(Unit: 1,000 yen)

Category	2022	2021	Increase/Decrease	
			Amount	Rate of Change(%)
Commission and Royalties	345,741	370,036	▲24,295	▲6.6
National Treasury Disbursements	1,084,111	1,013,833	70,278	6.9
Property Income	764,036	763,556	480	0.1
Balance Carried Forward	1,723,599	6,255,908	▲4,532,309	▲72.4
Other Income	46,597,561	45,275,186	1,322,375	2.9
Tokyo Metropolitan Government Credit	5,801,000	10,542,000	▲4,741,000	▲45.0
Total	56,316,048	64,220,519	▲7,904,471	▲12.3

Chart 1-2-2. Planned Expenditure

The supplementary budget is not included in the Tokyo Metropolitan Government's General Account for fiscal 2021.
 The simultaneous supplementary budget is not included in the Tokyo Metropolitan Government's General Account for fiscal 2022. (Unit: 1,000 yen)

Category		2022	2021	Increase/Decrease	
Subsection	Item			Amount	Rate of Change(%)
Fire Service Cost		253,422,000	251,067,000	2,355,000	0.9
	Fire Management Cost	199,773,000	199,615,000	158,000	0.1
	Fire Activity Cost	23,473,000	23,368,000	105,000	0.4
	Volunteer Fire Corps Cost	3,826,000	3,900,000	▲74,000	▲1.9
	Retirement Bonus and Pension	9,508,000	7,845,000	1,663,000	21.2
	Construction Cost	16,842,000	16,339,000	503,000	3.1
Metropolitan Government's General Account		7,801,000,000	7,425,000,000	376,000,000	5.1

$$\frac{\text{Fire Cost}}{\text{Metropolitan Government's General Account}} = \frac{¥253,422,000,000}{¥7,801,000,000,000} \times 100 (\%) = 3.2\%$$

Chart 1-2-3. Planned Expenditure by Category

(Unit: 1,000 yen)

Classification	2022		2021		Increase/Decrease		
	Budget Amount	Component Ratio	Budget Amount	Component Ratio	Amount	Rate of Change(%)	
Payroll	198,063,312	78.2	196,808,995	78.4	1,254,317	0.6	
Salary Payment	124,135,834	49.0	123,405,819	49.1	730,015	0.6	
	Retirement Bonus	9,400,250	3.7	7,722,220	3.1	1,678,030	21.7
	Other Personnel Payments	64,527,228	25.5	65,680,956	26.2	▲1,153,728	▲1.8
Project Cost	55,358,688	21.8	54,258,005	21.6	1,100,683	2.0	
Total	253,422,000	100.0	251,067,000	100.0	2,355,000	0.9	

TOKYO FIRE DEPARTMENT'S MAIN POLICIES (Fiscal 2022)

POLICY 1 Comprehensive Enhancement of the Safety Culture and Workforce

- Building a new system of safety promotion.
- Educating the personnel for an enhanced workforce.

POLICY 2 Enhancement of On-scene Fire Department Abilities for Safe, Quick Responses

- Developing earthquake preparedness and the steps for large disasters (e.g., storms and floods)
- Developing on-scene safety management

POLICY 3 Enhancement of the On-scene EMS System

- Developing the effectiveness of on-scene activities
- Encouraging people to learn, conduct and observe first-aid treatment and the rule of the proper use of ambulance service

POLICY 4 Enhancement of Community Disaster Preparedness with Local Residents

- Developing individuals' disaster preparedness through fire and emergency drills
- Enlarging the membership of volunteer fire corps and developing local emergency management

POLICY 5 Enhancement of the Tactics for Each Fire Prevention Measure

- Developing on-the-spot inspection systems and fire protection management for each workplace
- Developing fire safety steps for entertainment / shopping areas

POLICY 6 Enhancement of the DX System and Fire Administration

- Achieving efficient administration through an enhanced DX.
- Promoting the PR strategy to develop and urge the public's awareness and action

TFD Deployed Apparatus (As of April 2022)

The TFD has 2,009 fire apparatus including fire engines, foam trucks, ladder trucks and others (excl. the vehicles owned by other organizations). Deployment of major fire vehicles for each fire district is as below.

TFD Jurisdiction

Fire Engines	489
Ladder Trucks	86
Foam Trucks	48
Fireboats	9
Ambulances	271
Daytime Ambulances	4
Rescue Trucks	29
Rescue Trucks (for earthquake countermeasures)	4
Rescue Trucks (for loading air tools)	2
Water Rescue Trucks	4
Mountain Rescue Trucks	5
Special Rescue Trucks	18
First Arrival Vehicles	6
First Arrival Vehicles	3
Motorcycles	20
Helicopters	7
Heavy Vehicles (for rescue)	8
Heavy Vehicles (for road clearance)	6

8th Fire District HQ 15 Fire Stations

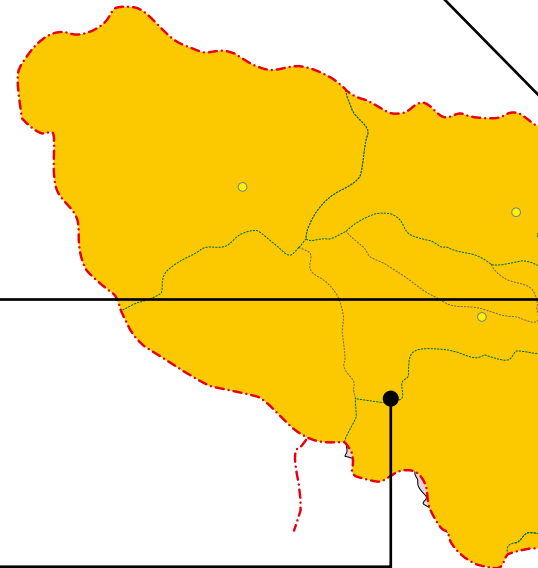
Fire Engines	83
Ladder Trucks	15
Foam Trucks	5
Ambulances	47
Rescue Trucks	3
Water Rescue Truck	1
Special Incident Trucks	2

Fire Rescue Task Forces

Foam Truck	1
Rescue Truck	1
Rescue Trucks (for earthquake countermeasures)	1
Rescue Trucks (for loading air tools)	2
Special Incident Truck	1
Heavy Rescue Trucks	2
Heavy Vehicles (for road clearance)	2

TFD HQ Rescue Operation Forces

Rescue Truck	1
Crawler Rescue Trucks	4
First Arrival Vehicle (a small electrical vehicle)	1



9th Fire District HQ 8 Fire Stations

Fire Engines	48
Ladder Trucks	8
Foam Trucks	6
Ambulances	33
Rescue Trucks	4
Mountain Trucks	5
Special Incident Truck	1
Motorcycles	4

Fire Rescue Task Forces

Fire Engine	1
Rescue Truck (for earthquake countermeasures)	1
Special Incident Trucks	3
Heavy Vehicles	2

4th Fire District HQ 7 Fire Stations

Fire Engines	51
Ladder Trucks	8
Foam Trucks	2
Ambulances	27
Rescue Trucks	2

3rd Fire District HQ 5 Fire Stations

Fire Engines	42
Ladder Trucks	5
Foam Truck	1
Ambulances	25
Rescue Trucks	2
Motorcycles	4

Fire Rescue Task Forces

Fire Engine	1
Rescue Truck	1
Special Incident Vehicles	3
Crawler Rescue Truck	1

■ Air Fire Rescue Task Forces

Fire Engine	1
Rescue Truck	1
Helicopters	(*)

* The TFD owns 7 helicopters and flexibly operate them depending on disasters.

■ Mobility Ambulance Units

Ambulances	4
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* The ambulances change its station to the area where the EMS demand is high depending on time and are flexibly operated.

■ 6th Fire District HQ 8 Fire Stations

Fire Engines	48
Ladder Trucks	8
Foam Trucks	4
Ambulances	24
Rescue Trucks	2
Water Rescue Truck	1
Special Incident Truck	1
First Arrival Vehicles (Electrical Trike)	2
Motorcycles	2

Fire Rescue Task Forces

Fire Engine	1
Foam Truck	1
Rescue Truck	1
Rescue Truck (for earthquake countermeasures)	1
Special Incident Truck	1
Crawler Rescue Truck	1
Heavy Vehicles (for rescue)	2
Heavy Vehicles (for road clearance)	2

■ 10th Fire District HQ 5 Fire Stations

Fire Engines	32
Ladder Trucks	5
Foam Trucks	4
Ambulances	19
Daytime Ambulance	1
Rescue Trucks	3
Special Incident Truck	1

■ 5th Fire District HQ 7 Fire Stations

Fire Engines	40
Ladder Trucks	7
Foam Trucks	2
Ambulances	18
Daytime Ambulance	1
Rescue Truck	1
Special Incident Truck	1
Motorcycles	2

■ 7th Fire District HQ 9 Fire Stations

Fire Engines	57
Ladder Trucks	10
Foam Trucks	11
Ambulances	37
Daytime Ambulance	1
Rescue Trucks	3
Water Rescue Truck	1
Special Incident Truck	1
Motorcycles	4

■ 2nd District HQ 7 Fire Stations

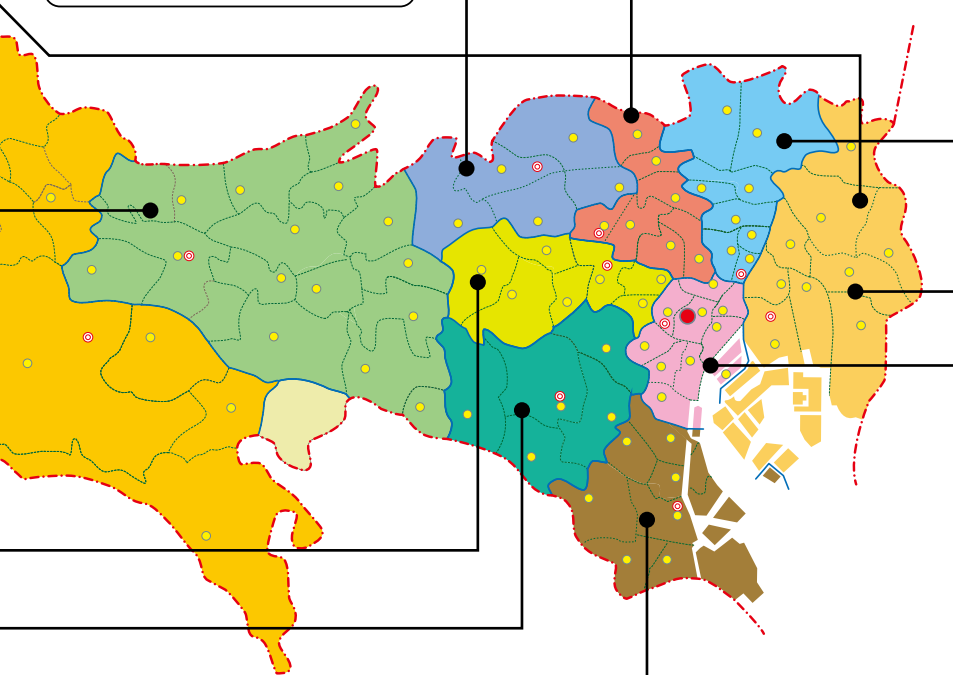
Fire Engines	45
Ladder Trucks	7
Foam Trucks	6
Ambulances	22
Daytime Ambulance	1
Rescue Truck	1
Water Rescue Truck	1
Special Incident Truck	1
Motorcycles	2

Fire Rescue Task Forces

Fire Engine	1
Foam Truck	1
Rescue Truck	1
Rescue Truck (for earthquake countermeasures)	1
Special Incident Truck	1
Heavy Vehicles (for rescue)	2
Heavy Vehicles (for road clearance)	2

■ 1st Fire District HQ 10 Fire Stations

Fire Engines	38
Ladder Trucks	13
Foam Trucks	4
Fireboats	9
Ambulances	15
Rescue Trucks	2
Special Incident Truck	1
Motorcycles	2



2. Safety Promotion Comes Again

(1) New Team for Greater Safety

The TFD, importantly with a focus on safety improvement, further viewed its safety promotion strategy after the serious incidents that newly occurred. With the review, we totally analyzed the causes of incidents, looked into the factors that could have been attributed to the TFD, and established additional safety steps overall. Then we came forth with the **Safety Promotion Division**. This is the "one and only" specialist team in Japan promoting the Safety Culture*.

* Safety Culture: With the motto "Safety comes first," the members prepare for the worst, hoping for the best.

Safety Culture (Four Points)

▶ Flexible	Deciding by fact-finding (while following manuals or standards)
▶ Diligent	Learning lessons from on-scene emergencies and other industries' incidents / Taking new steps forward
▶ Honest	Sharing mistakes and carelessness facts / Letting no more failure happen
▶ Just	Accepting others' efforts even after accidents / Taking decisive action against indecent, improper behavior

(2) Safety Promotion Division (Concept)

Three Visions and Functions

1 WHOLE	— Overall Promotion — Realizing improvement with an across-the-board view / Promoting measures collectively in a body / Taking outsiders' expertise
2 ESSENCE	— Analysis & Judgement — Checking incident causes and deciding on measures scientifically also in terms of human factors / Achieving essential improvement / Making advantage of the knowhow to support on-scene activities or conduct fire investigations
3 FUTURE	— Technology & Development — Proceeding as the "one and only" specialized team in Japan for greater safety / Looking into existing and future safety technology

3. Safety Technology Section

(1) Background

In April 1961, the TFD established the Fire Science Laboratory as the first research body in the history of Japan's municipal fire service in order to cope with unprecedented types of fires and others amid the rapid development in society.

In April 2006, the Laboratory came to bear a new name of Fire Technology and Safety Laboratory, and as a new organization to support on-scene activities scientifically as well.

In April 2022, the Safety Promotion Section was established in the Safety Promotion Division as a successor to the previous body.



▲ Start 1961



▲ Change 2006



▲ Change(Safety Promotion Div.) 2022

(2) Policy

- 1 Serving as a bridge between technology and disaster scene activities / Working on creating safe communities "SAFETY" for the present and future
- 2 Providing specialized knowledge / Working on enhancing TFD policies in terms of technology
- 3 Promoting the latest technology with the view and vision of the Tokyo Metropolitan Government and the public in mind / Working on creating new administrative measures

4. International Cooperation

(1) IRT (International Rescue Team)

The IRT was formed on April 1, 1986 by the Fire Defense Agency, the Home Affairs Ministry (presently, the Fire and Disaster Management Agency, the Ministry of Internal Affairs and Communications) with the cooperation of other related authorities. This team system came forth with lessons learned from the Mexico City Earthquake on September 19, 1985 and the Eruption of Nevado del Ruiz in Colombia on November 14, 1985. The team members have achieved their missions 21 times out of Japan so far.

Chart 4-1. IRT's Achievement

	DATE	PLACE	DAMAGE	TFD MEMBER
1	Aug. 27, 1986 (11 days)	Republic of Cameroon	Death: Over 1,700	1
2	Oct. 11, 1986 (10 days)	Republic of El Salvador	Death: 1,226	5
3	June 22, 1990 (11 days)	Islamic Republic of Iran	Death: Over 80,000	5
4	July 18, 1990 (9 days)	Republic of the Philippines	Death: Over 1,600	2
5	May 15, 1991 (23 days)	People's Republic of Bangladesh	Death: 130,000	17
6	Dec. 13, 1993 (8 days)	Malaysia	Death: 48	6
7	Oct. 30, 1996 (8 days)	Arab Republic of Egypt	Death: 64	3
8	Oct. 22, 1997 (21 days)	Republic of Indonesia	Burnt Area: 18,000 ha	19
9	Jan. 26, 1999 (10 days)	Republic of Colombia	Death: 1,171	8
10	Aug. 17, 1999 (8 days)	Republic of Turkey	Death: 15,370	12
11	Sept. 21, 1999 (8 days)	Taiwan	Death: 2,333	18
12	May 22, 2003 (8 days)	People's Democratic Republic of Algeria	Death: 2,266	8
13	Feb. 25, 2004 (6 days)	Kingdom of Morocco	Death: 628	4
14	Dec. 29, 2004 (23 days)	Kingdom of Thailand	Death: 229,866	23
15	Oct. 9, 2005 (10 days)	Islamic Republic of Pakistan	Death: 73,338	6
16	May 15, 2008 (7 days)	People's Republic of China	Death: 69,227	6
17	Oct. 1, 2009 (8 days)	Republic of Indonesia	Death: 1,117	6
18	Feb. 22, 2011 (19 days)	New Zealand	Death: 181	16
19	Apr. 26, 2015 (14 days)	Federal Democratic Republic of Nepal	Death: 8,896	6
20	Sept. 21, 2017 (8 days)	United Mexican States	Death: 369	6
21	Feb. 8, 2018 (3 days)	Taiwan	Death: 17	2



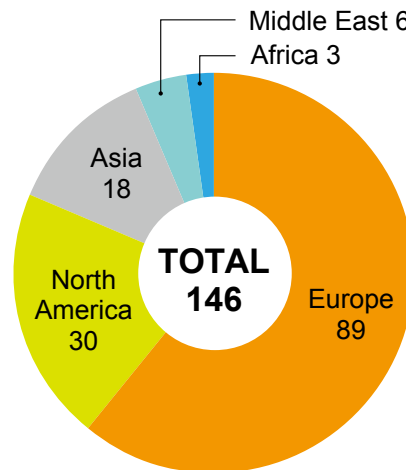
(2) Relations with Foreign Fire Departments

The TFD, as the "lifesaver of Japan's capital Tokyo," attracts foreign countries' attraction, accepting a lot of overseas emergency responders every year. They share information, promote friendship, learn rescue skills, and so on.

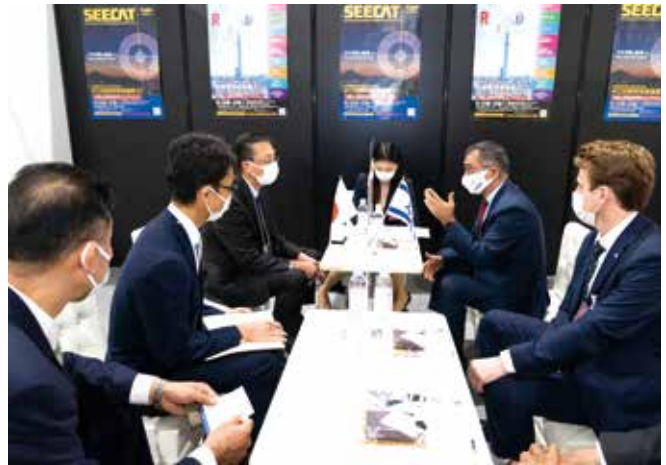
Notably, the daily contact and network with foreign fire departments can lead to the immediate teamwork in emergencies, and help the TFD raise its international communication capabilities.

In 2021, the TFD welcomed in 146 foreign fire service members. The TFD thus continues interchanges and exchanges with various countries in Europe and other parts of the world.

Chart 4-2. Visitors 2021



▲ French President's Doctors visited the TFD for understanding its EMS services due to the president's attendance of the Tokyo 2020 Games.



▲ The TFD's Fire Chief and Israeli Ambassador held a meeting at the RISCAN TOKYO 2022 for information exchange on fire service and future cooperation in development between the two nations.

(3) Participation of International Meetings

Our members take part in international meetings with the aim of collecting information of state-of-the-art technologies and fire apparatus, delivering lectures on our technology and knowledge and exchanging information with overseas fire executives.



▲ With Fire Chiefs of the Paris Fire Brigade and the TFD at the top of the list, 18 members in total from Paris and Tokyo took part in a web meeting and discussed latest technologies and fire measures against large-scale events at the annual assembly.



5. Relations with Foreign Residents and Visitors in Tokyo

(1) Safety Information

1 Pamphlets and Leaflets

The TFD Website presents 5-language pamphlet/leaflet tips to foreign residents and visitors in Tokyo. It tells, in English, Chinese, Korean, Thai and Filipino, how to make an emergency call (1-1-9), how to protect yourself from an earthquake, and so on.



2 Tips for Embassies

In Tokyo, 159 embassies and other related establishments are found. They protect their own nations. After the start of the mail magazine system for them, the TFD has 106 subscribers now (as of April, 2022). This periodical tells about Japan's fire service, the TFD's measures, the events by the local fire station, local area disaster facts, and more.

In receipt of favorable feedback from embassies in the past, the TFD will continue to contribute to the safety of foreign people.

(2) Communication Support Tools

1 EMS VoiceTra

To secure the safety stay of the foreign nationals in Tokyo, All the TFD EMS units have *EMS VoiceTra*, the multilingual translation app., since July, 2022.

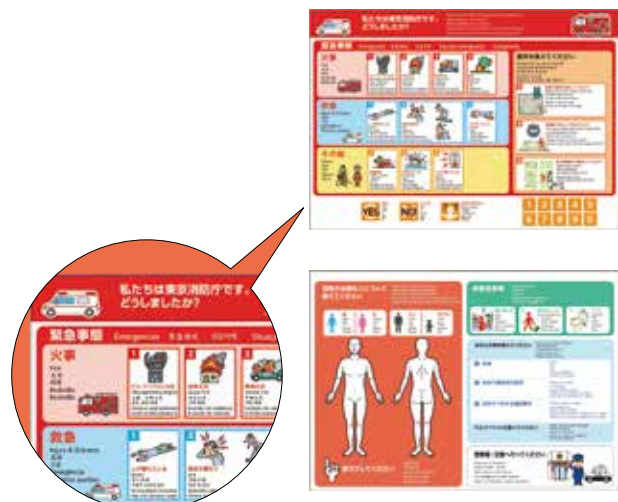
EMS VoiceTra is an app. which was developed based on *VoiceTra*, the multilingual voice translation app, by the joint work of the National Institute of Information and Communications Technology (NICT) and the National Research Institute of Fire and Disaster with the Fire and Disaster Management Agency of the Ministry of Internal Affairs and Communications. 30 languages are available and for 15 out of 30 languages, commonly used conversational phrases on the EMS scenes are installed. It enables EMS crews and patients to communicate by voice and words displayed on the screen.

Chart 5-1. Transported Foreign Patients

	2017	2018	2019	2020	2021
Victims	11,636	12,936	14,096	10,752	11,625

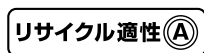
2 Communication Support Board

It is expected that the number of foreign residents and travelers will increase this year. Accordingly, every reception desk of the fire stations within the TFD jurisdiction has the communication support board in five languages with illustrations and pictograms in order to facilitate communication with foreign nationals who directly inform the fire station of their emergencies.



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