

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)

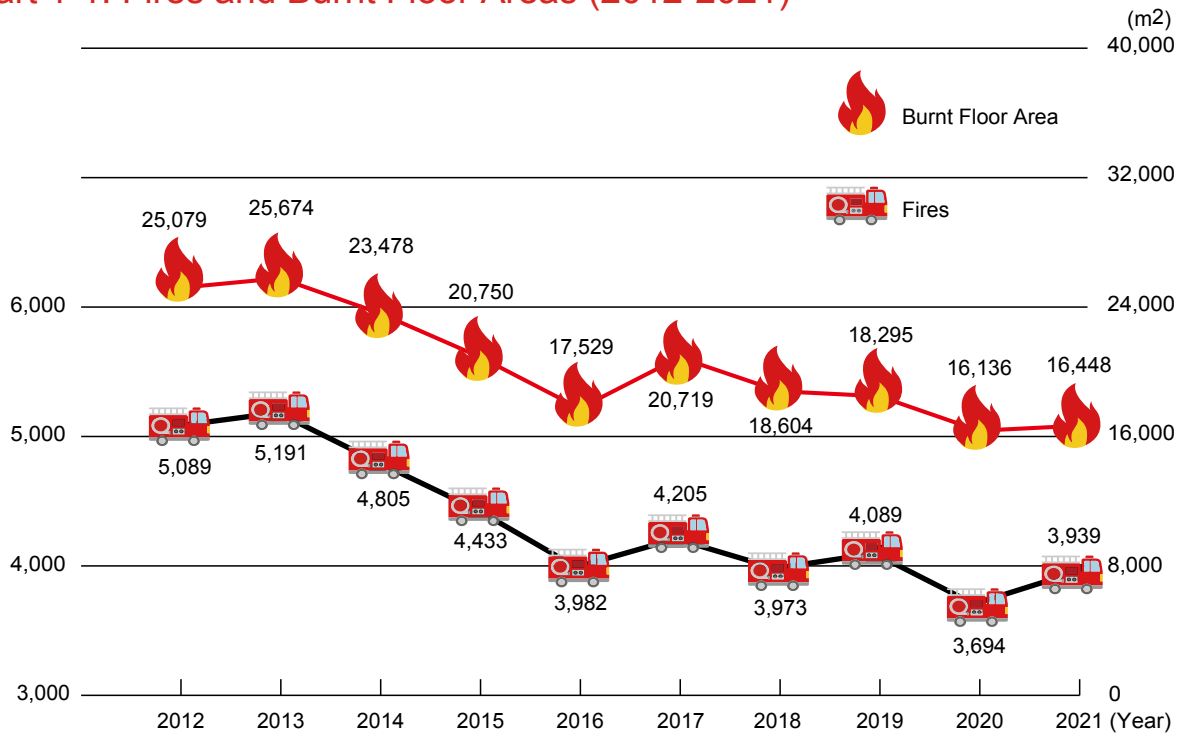
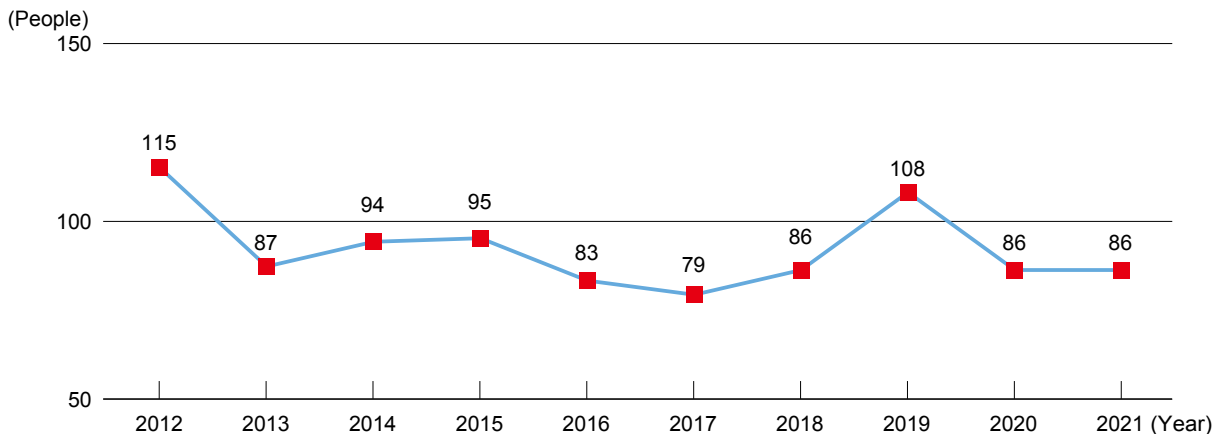


Chart 1-2. Fire Deaths over 10 Years (2012-2021)



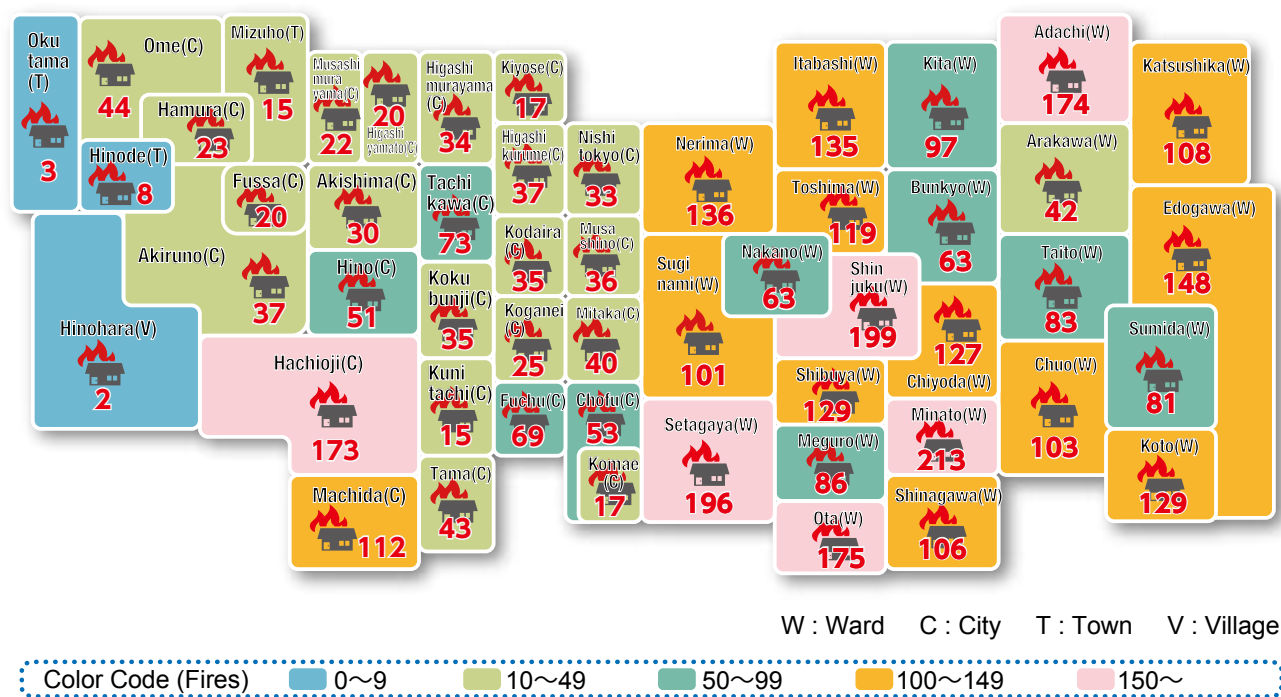
In terms of fire type, there were 2,812 building fires, an increase of 145 from the previous year, which accounted for more than 70% of all fires. There were 901 other types of fires, a significant increase of 92 from previous years.

* 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

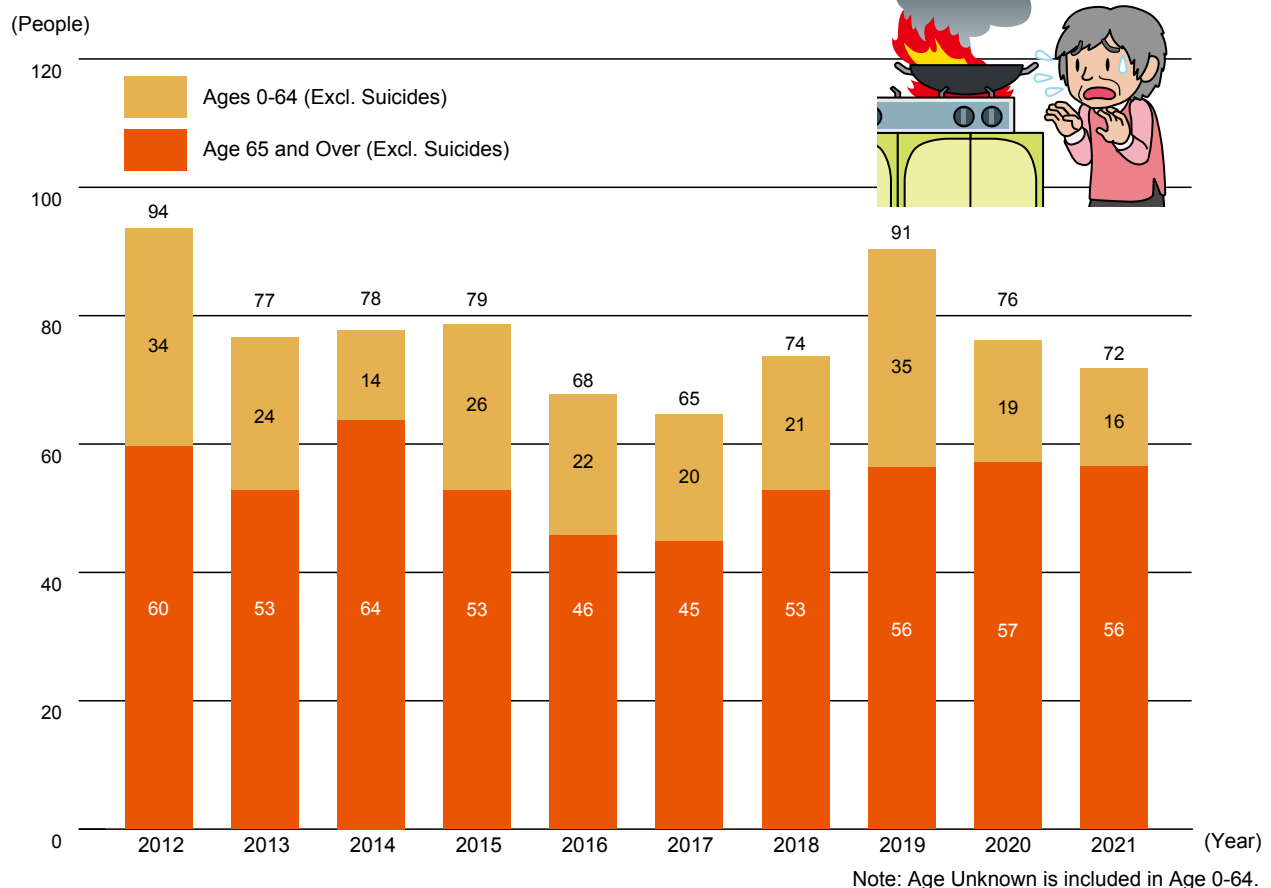
The number of fire deaths excluding self-inflicted loss in 2021 was 72, down 4 from the previous year.

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



(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)

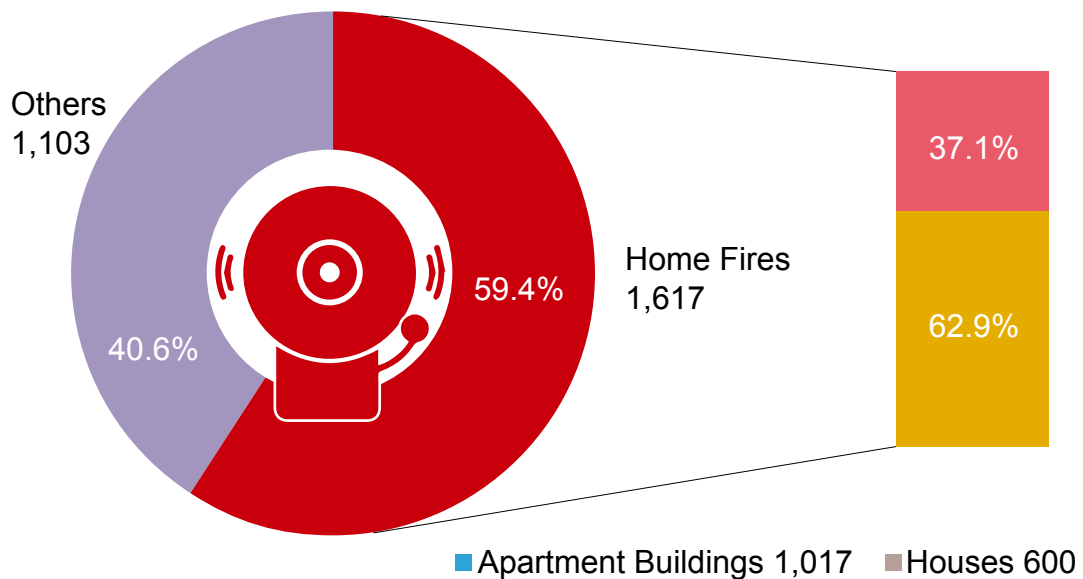
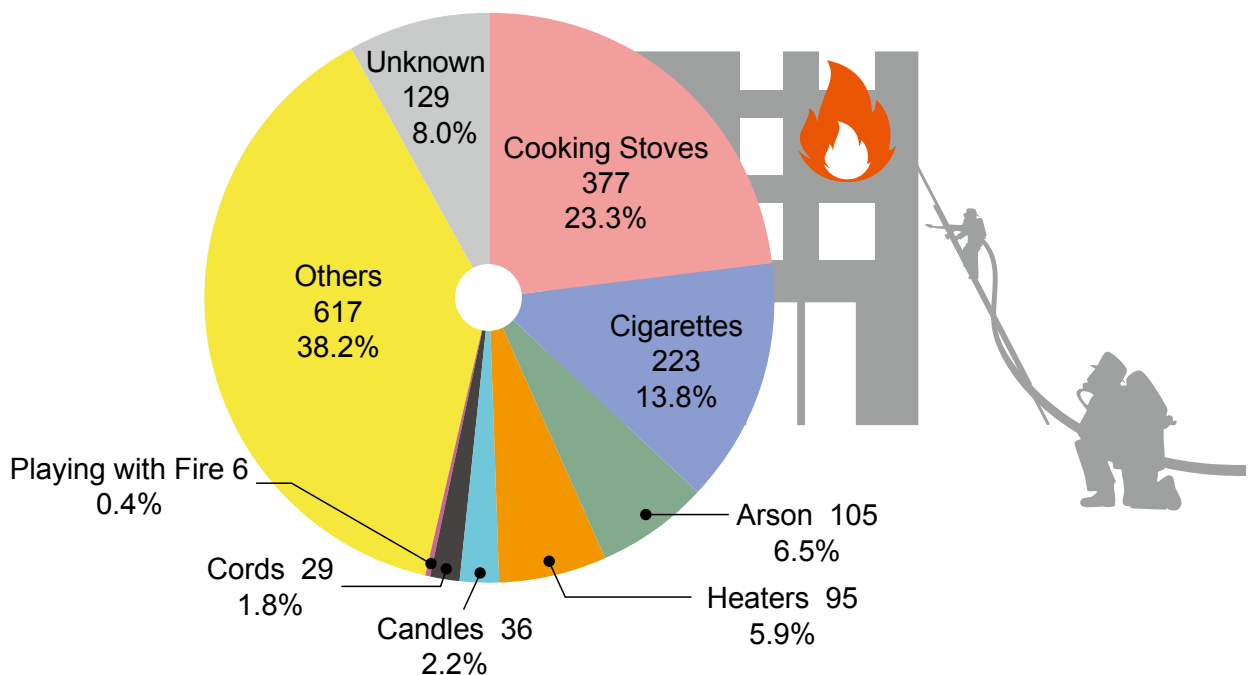


Chart 4-1-2. Home Fire Causes (2021)



(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)

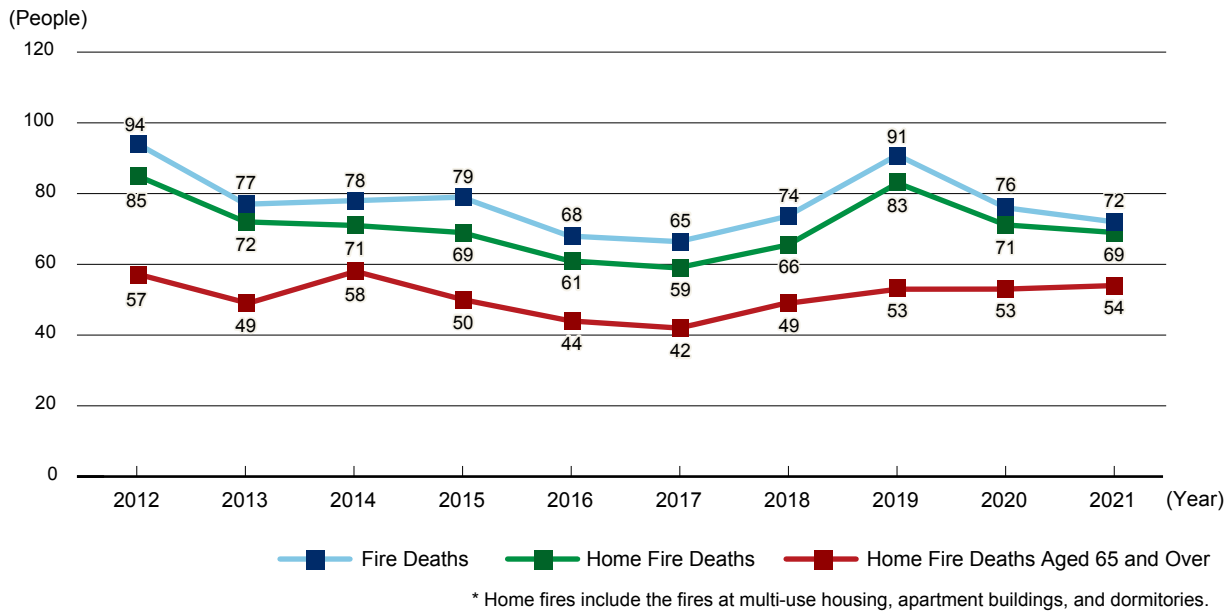
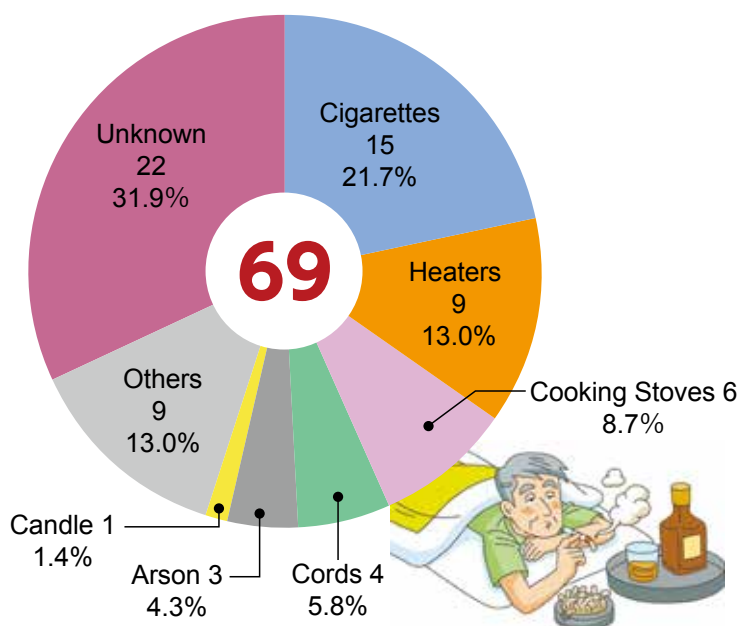


Chart 4-2-2. Home Fire Deaths by Gender

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)

