

# FIRE

## 1. Outline

In fiscal 2022, the number of fires within the TFD's jurisdiction was 3,953, up 14 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 2022, the number of fires was the third lowest since the TFD had started to entrust fire service in the Tama area in 1960.

The burnt floor area was 21,974m<sup>2</sup>, up 5,526 m<sup>2</sup> from the previous year.

The number of fire deaths is 89, up 3 people from the previous year.

Chart 1-1. Fires and Burnt Floor Area (2013-2022)

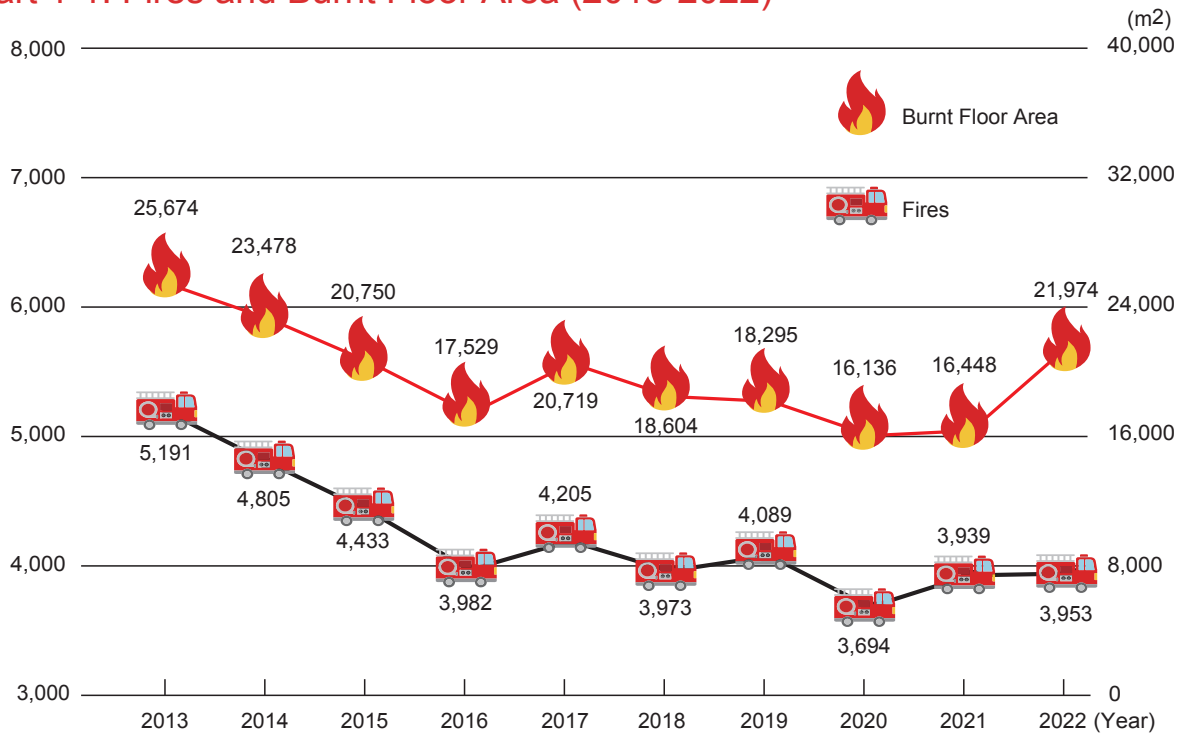
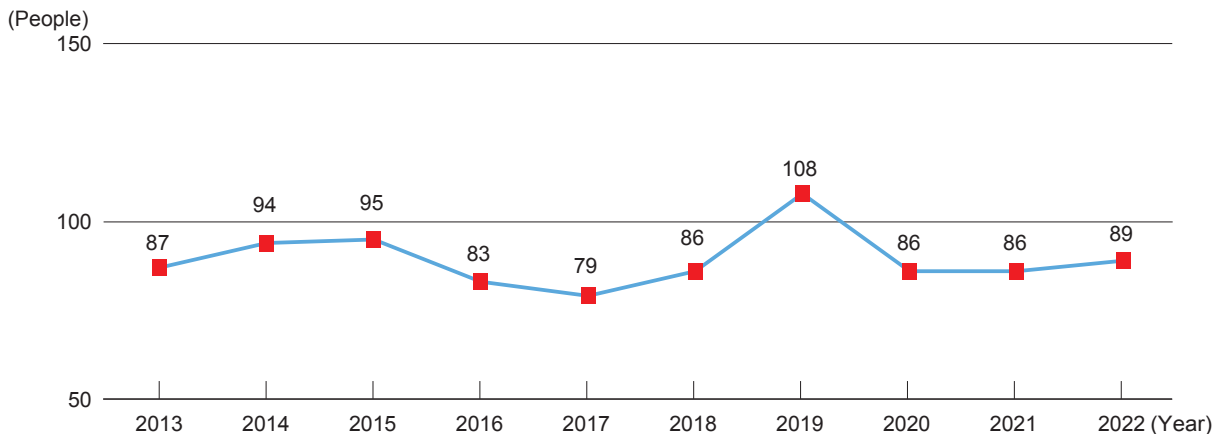


Chart 1-2. Fire Deaths over 10 Years (2013-2022)



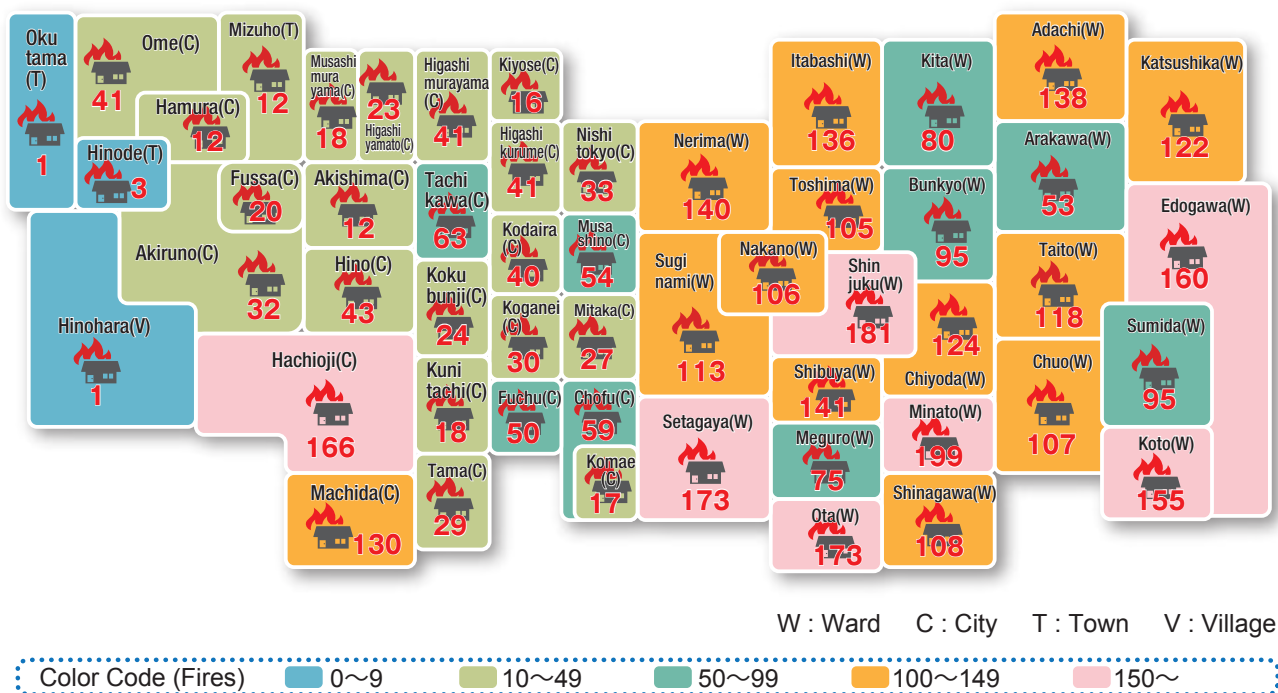
In terms of fire type, there were 2,850 building fires, an increase of 38 from the previous year, which accounted for more than 70% of all fires. There were 909 other types of fires, an increase of 8 from the previous year.

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

Chart 1-3. Details

|                      |                 | 2022                  | 2021                  | Change from 2021     |
|----------------------|-----------------|-----------------------|-----------------------|----------------------|
| Fires                |                 | 3,953                 | 3,939                 | 14                   |
| Type                 | Buildings Fires | 2,850                 | 2,812                 | 38                   |
|                      | Wildland Fires  | 3                     | 6                     | ▲ 3                  |
|                      | Vehicle Fires   | 187                   | 215                   | ▲ 28                 |
|                      | Ship Fires      | 3                     | 1                     | 2                    |
|                      | Aircraft Fires  | 0                     | 0                     | 0                    |
|                      | Others          | 909                   | 901                   | 8                    |
| Extraterritorial     |                 | 1                     | 4                     | ▲ 3                  |
| Outside Jurisdiction |                 | 0                     | 0                     | 0                    |
| Fire Deaths          |                 | 89                    | 86                    | 3                    |
| Fire Injuries        |                 | 742                   | 664                   | 78                   |
| Burnt Floor Areas    |                 | 21,974 m <sup>2</sup> | 16,448 m <sup>2</sup> | 5,526 m <sup>2</sup> |
| Burnt Buildings      |                 | 3,259                 | 3,228                 | 31                   |
| Affected Households  |                 | 2,499                 | 2,382                 | 117                  |
| Damage               |                 | ¥5,466,720,488        | ¥4,208,012,095        | ¥1,258,708,393       |

Chart 1-4. Fires by Municipality (2022)



Note: The fire incident count by municipality includes fires occurring in extraterritorial and non-jurisdictional areas.

## 2. Fire Deaths and Injuries

### (1) Fire Deaths

The number of fire deaths excluding self-inflicted loss in 2022 was 75, up 3 from the previous year.

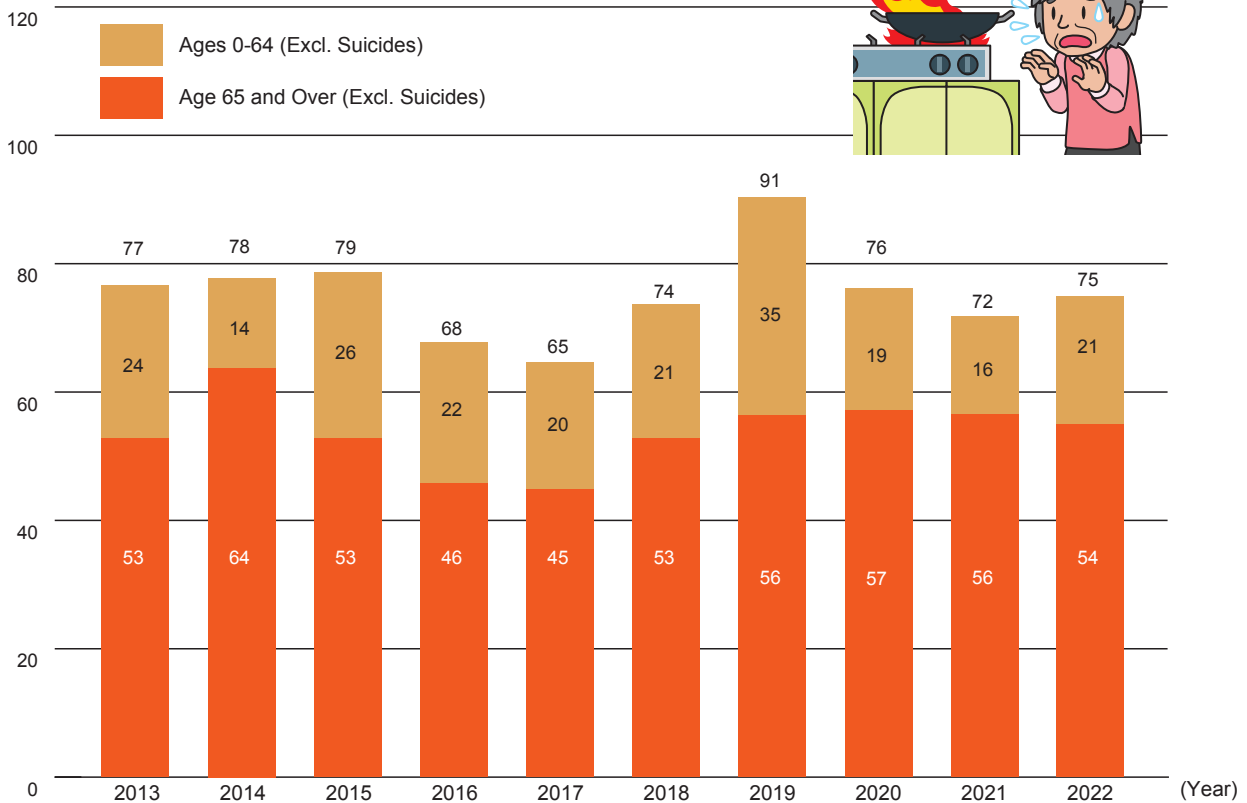
In terms of the occurrence of death by age group, the number of the elderly aged 65 and over was 54, which accounted for 72.0% of total fire deaths.

Chart 2-1-1. Fire Deaths

|                    | 2022      | 2021      | Change from 2021 |
|--------------------|-----------|-----------|------------------|
| Fire Deaths        | 89        | 86        | 3                |
| Excluding Suicides | 75        | 72        | 3                |
| Age 65 and Over    | 54(72.0%) | 56(77.8%) | ▲ 2              |
| Ages 0-64          | 21(28.0%) | 16(22.2%) | 5                |
| Suicides           | 14        | 14        | 0                |

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

(People)



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

## (2) Fire Injuries

There were 742 fire injuries, up 78 from the previous year.

In terms of the degree of the 742 injuries, people with minor injuries accounted for over 60% of the total. However, for the rest, the number of the people with critical injuries accounted for 17 (2.3%), those with severe injuries accounted for 76 (10.2%), and those with moderate injuries accounted for 175 (23.6%).

Chart 2-2-1. Number of Fire Injuries

|               |                        | 2022       | 2021       | Change from 2021 |
|---------------|------------------------|------------|------------|------------------|
| Fire Injuries |                        | 742        | 664        | 78               |
| Degree        | Critical Fire Injuries | 17( 2.3%)  | 20( 3.0%)  | ▲ 3              |
|               | Severe Fire Injuries   | 76(10.2%)  | 79(11.9%)  | ▲ 3              |
|               | Moderate Fire Injuries | 175(23.6%) | 162(24.4%) | 13               |
|               | Minor Fire Injuries    | 474(63.9%) | 403(60.7%) | 71               |

The first major cause of fires in 2022 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 601 cases of arson (incl. suspected arson), up 11 from the previous year. The second major cause was cigarettes, which accounted for 569 cases, down 14 from the previous year. The third major cause was gas ranges and similar devices, which accounted for 331 cases, down 30 from the previous year.

Chart 2-2-2. Major Fire Causes (Top 10 in 2022)

| Year / Change from 2021       | 2013  | 2014  | 2015  | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | Change from 2021 |
|-------------------------------|-------|-------|-------|------|------|------|------|------|------|------|------------------|
| Arson (Incl. Suspected Arson) | 1,622 | 1,381 | 1,027 | 881  | 896  | 705  | 641  | 641  | 590  | 601  | 11               |
| Cigarettes                    | 737   | 710   | 664   | 586  | 691  | 651  | 689  | 508  | 583  | 569  | ▲ 14             |
| Gas Ranges                    | 418   | 415   | 457   | 363  | 360  | 305  | 347  | 399  | 361  | 331  | ▲ 30             |
| Large Gas Stoves              | 102   | 110   | 118   | 110  | 95   | 98   | 110  | 72   | 90   | 96   | 6                |
| Outlets                       | 66    | 48    | 53    | 59   | 59   | 56   | 56   | 59   | 86   | 89   | 3                |
| Electric Heaters              | 105   | 104   | 75    | 85   | 100  | 71   | 85   | 69   | 85   | 89   | 4                |
| Plugs                         | 69    | 59    | 47    | 64   | 64   | 64   | 85   | 62   | 82   | 81   | ▲ 1              |
| Cords                         | 49    | 45    | 57    | 61   | 74   | 57   | 62   | 60   | 53   | 68   | 15               |
| Internal Wiring               | 46    | 41    | 46    | 41   | 40   | 39   | 56   | 28   | 42   | 48   | 6                |
| Power Lines                   | 32    | 18    | 36    | 29   | 33   | 36   | 38   | 23   | 29   | 42   | 13               |

### 3. Structure Fires by Type

The number of the fires that broke out from “structure themselves” in 2022 was 2,778, up 58 from the previous year.

There were 1,606 fires that broke out from detached houses and apartment buildings, accounting for more than half of the fires from structures themselves.

The breakdown shows 1,018 apartment building fires (up 1 from the previous year) and 588 detached house fires (down 12) . There were 1,172 structural fires from buildings other than those for residential housing, up 69 from the previous year. By type of use, the number of restaurant fires was 289, which was the largest (up 1 from the previous year), followed by 141 office fires (down 21) and 110 fires from department stores and shops (down 7).

Chart 3. Structure Fires by Type (Top 8, excluding home fires in 2022)

| Year             | Home Fires | Breakdown |                     | Restaurants | Offices | Department Stores and Shops |
|------------------|------------|-----------|---------------------|-------------|---------|-----------------------------|
|                  |            | Houses    | Apartment Buildings |             |         |                             |
| 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                         |
| 2022             | 1,606      | 588       | 1,018               | 289         | 141     | 110                         |
| Change from 2021 | ▲ 11       | ▲ 12      | 1                   | 1           | ▲ 21    | ▲ 7                         |

| Year             | Factories | Hotels and Inns | Hospitals | Railroad Stations | Schools | Structure Fires (Total) |
|------------------|-----------|-----------------|-----------|-------------------|---------|-------------------------|
| 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                   |
| 2022             | 93        | 51              | 24        | 31                | 30      | 2,778                   |
| Change from 2021 | 19        | 25              | ▲ 2       | 6                 | 6       | 58                      |

# 4. Home Fires

## (1) Number / Causes

In 2022, there were 3,953 fires of which 1,606 were caused in the home. The number of home fires is down 11 from the previous year. The total number is down 171 compared to 1,777, the biggest number in 2013, of the recent 10-year change in home fires.

Chart 4-1-1. Structure Fires (2022)

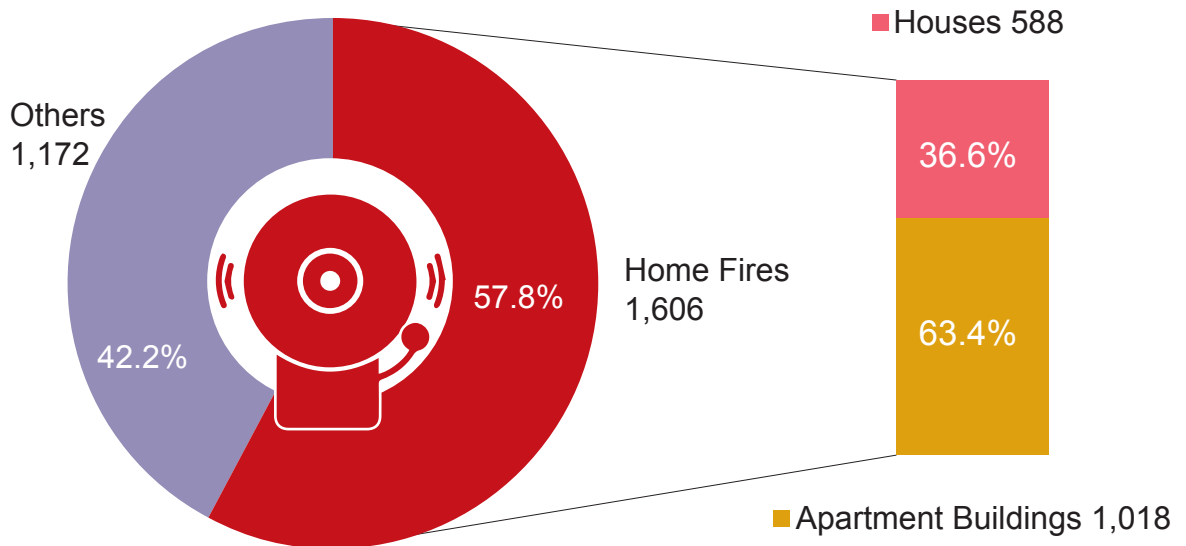
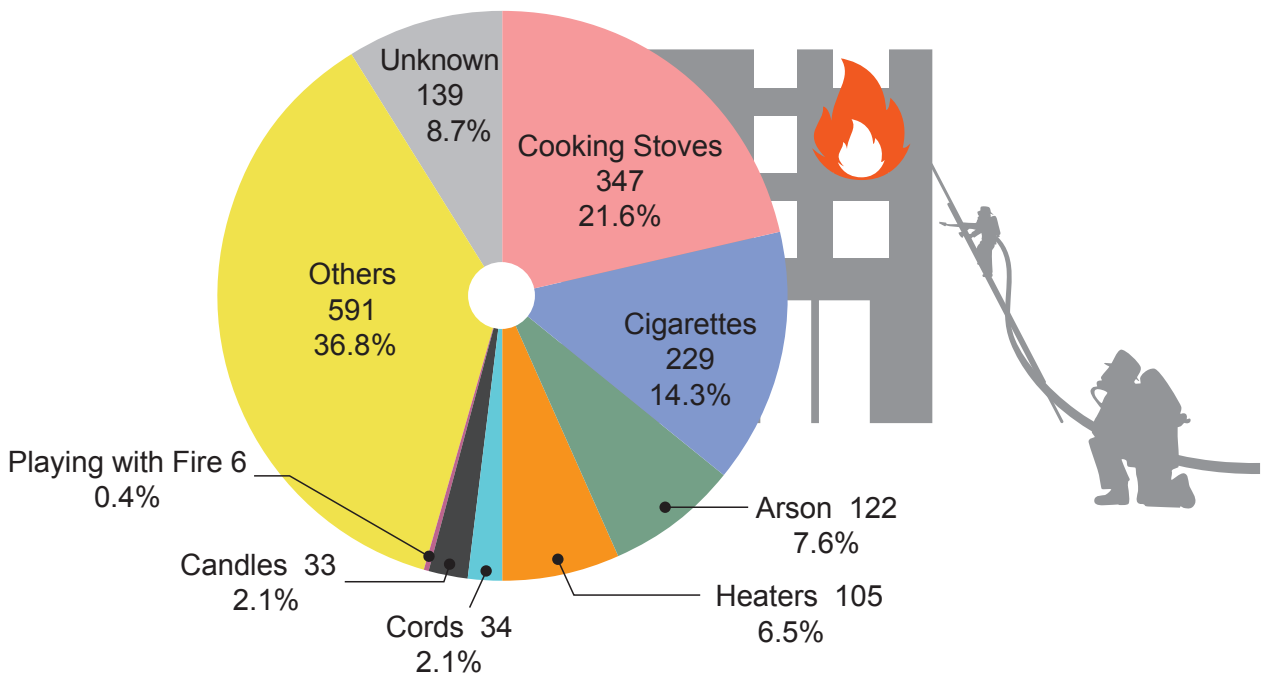


Chart 4-1-2. Home Fire Causes (2022)



## (2) Home Fire Deaths

The number of the fire deaths excluding self-inflicted loss in 2022 was 75, up 3 from the previous year. Of these, 71 died in home fires, up 2 from the previous year. The rate of deaths due to home fires except self-inflicted loss was about 95%.

In terms of housing type, 47 people (66.2%) died in detached house fires, and 24 people (33.8%) 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 (2013-2022)

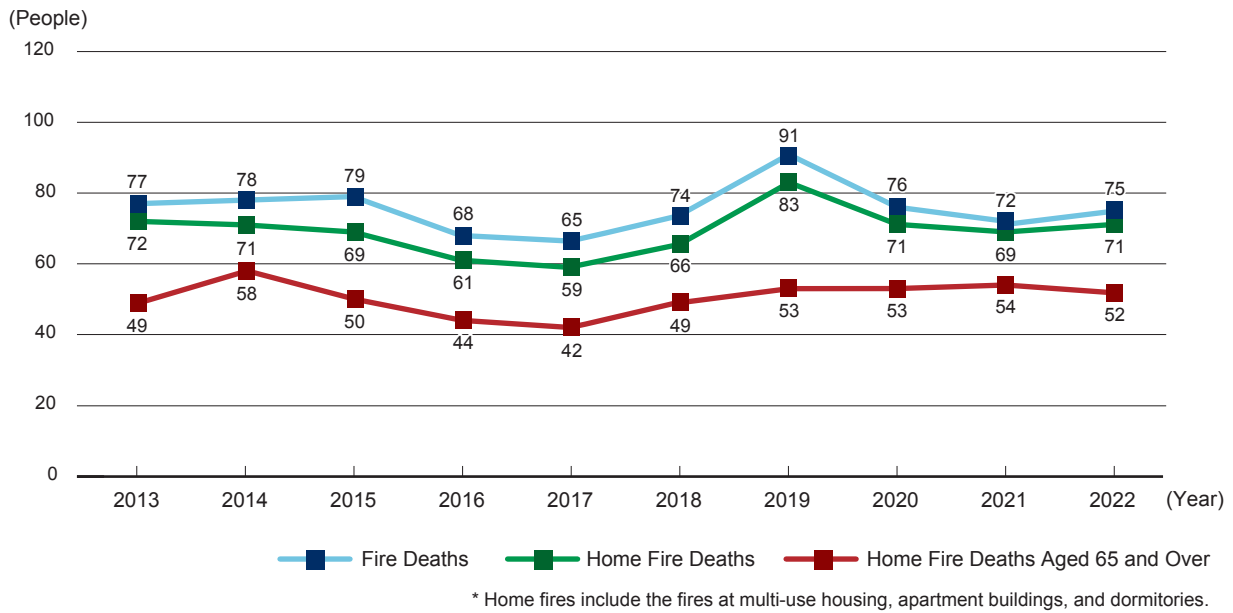
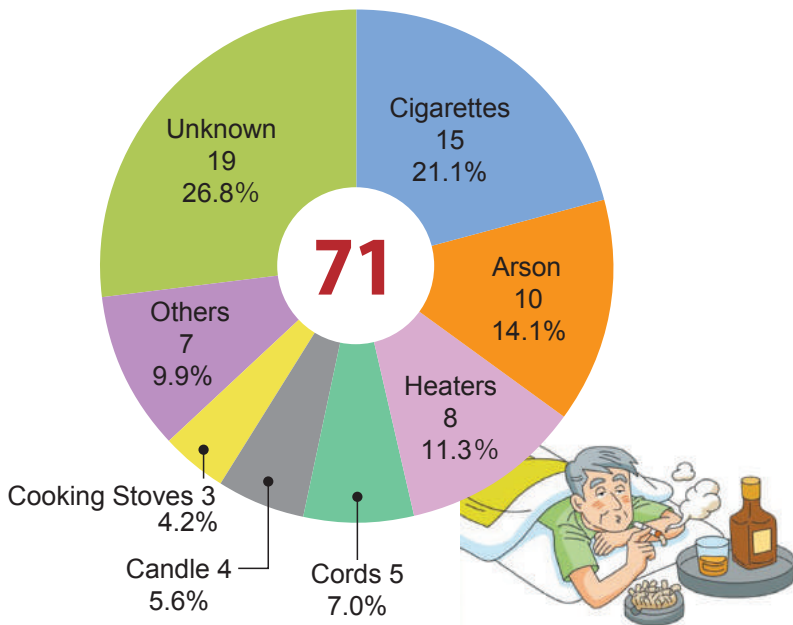


Chart 4-2-2. Home Fire Deaths by Gender

| Age                       | Gender |        | Total | Rate  |
|---------------------------|--------|--------|-------|-------|
|                           | Male   | Female |       |       |
| Infants (Ages 0-5)        | 0      | 0      | 0     | 0%    |
| Underages (Ages 6-19)     | 0      | 0      | 0     | 0%    |
| Adults (Ages 20-64)       | 14     | 5      | 19    | 26.8% |
| Seniors (Age 65 and Over) | 29     | 23     | 52    | 73.2% |
| Total                     | 43     | 28     | 71    | 100%  |
| Rate                      | 60.6%  | 39.4%  | 100%  | —     |

Chart 4-2-3. Fire Deaths by Cause (2022)



### (3) Home Fire Alarm

The installation rate of residential fire alarm (incl. automatic fire alarm systems and sprinklers) in 2022 was 88.8%.

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

Residential fire alarms that have been in operation for ten years or more may lose their ability to detect fires due to electronic component degradation or battery depletion. Consider replacing the main unit of residential fire alarms every ten years, even if they are currently functioning.

Additionally, residential fire alarms can be easily tested by pressing the main unit button or pulling the attached string. Perform operational checks at least once every six months and ensure proper maintenance.



Chart 4-3. Home Fire Alarm Installation Rate (2006-2022)

