

2017 FIRE FATALITY REPORT



**WASHINGTON
STATE FIRE MARSHAL**

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MESSAGE FROM THE STATE FIRE MARSHAL



The following report is a summary of the fire fatality incidents reported to the State Fire Marshal's Office by fire and law enforcement agencies in our state.

The information contained in this annual report details the following:

- Fire fatalities were up 27 percent in 2017, with 70 deaths reported.
- Home fires caused more than 80 percent of fire-related deaths.
- When smoke alarms were present, they were operational only 28 percent of the time.
- Overall, adults age 60 and older had a greater risk of fire death than any other age group.
- Children under the age of 10 accounted for 11 percent of all fire-related deaths.

I would like to extend special thanks to the many agencies in our state who manage, track and report these incidents to our office in a timely manner.

The information outlined in this report highlights the need for working fire protection devices and fire prevention strategies in places we live, work and play.

Sincerely,

A handwritten signature in blue ink that reads 'Charles P. LeBlanc'.

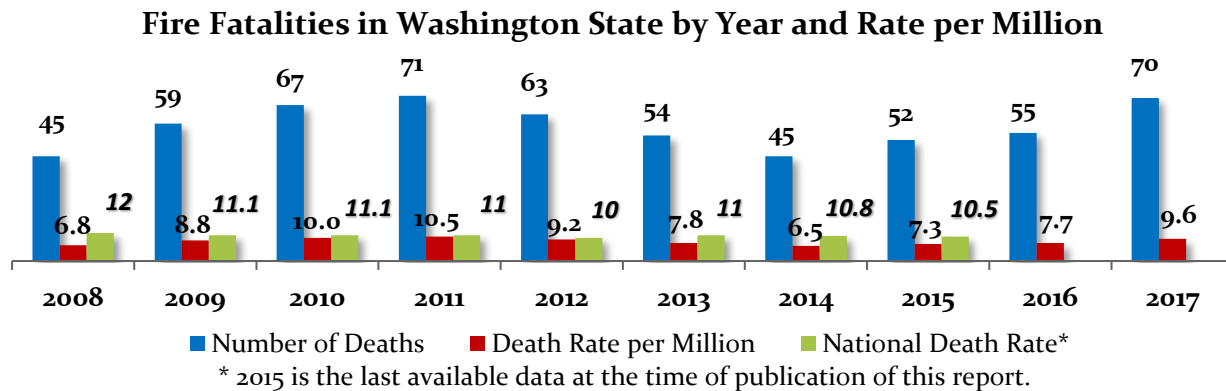
State Fire Marshal Charles P. LeBlanc

DATA SOURCES

The fire fatality information used for this report was submitted by fire and law enforcement agencies throughout Washington State in accordance with Revised Code of Washington 43.44.060. The primary purpose of this annual report is to help raise awareness about the danger and frequency of fire fatalities, so fire service leaders can work collectively to implement risk reduction strategies across the state of Washington.

NUMBER OF FIRE FATALITIES

There were 70 fire fatalities reported to the State Fire Marshal's Office, representing a 27 percent increase compared to the previous year. This places Washington's fire fatality rate at 9.6 per million people¹. According to the latest available statistics from the United States Fire Administration (2015 figures), the national fire death rate was 10.5 per million people – Washington State ranked 15th lowest in the nation.



OCCUPANCY CATEGORIES

Washington State statistics indicate that nearly all fire deaths occur in places where people live or sleep. More than 80 percent of the fire fatalities occurred in residential occupancies. Single-family dwellings alone accounted for 73 percent of reported fire fatalities, including eight deaths in mobile homes. Multi-family dwellings accounted for 9 percent of all fire deaths.

Occupancy Categories	Total	% of Total
Single Family Dwellings	51	73%
Multi-Family Dwellings	6	9%
Detached Garage	2	3%
Business	1	1%
Travel Trailer/Recreational Vehicle	5	7%
Motor Vehicle	3	4%
Outdoor	2	3%
Total	70	100%

¹ Annual population is based on estimates published by the Washington State Office of Financial Management for all cities and towns in the state on April 1 of each year.

CAUSE OF FIRE IGNITION

The leading known fire cause resulting in fatality is attributed to smoking materials, resulting in 10 fire deaths. High-risk behaviors such as smoking in sleeping or lounging areas; smoking while using medical oxygen; and smoking while under the influence of mind-altering drugs or alcohol are contributing factors.

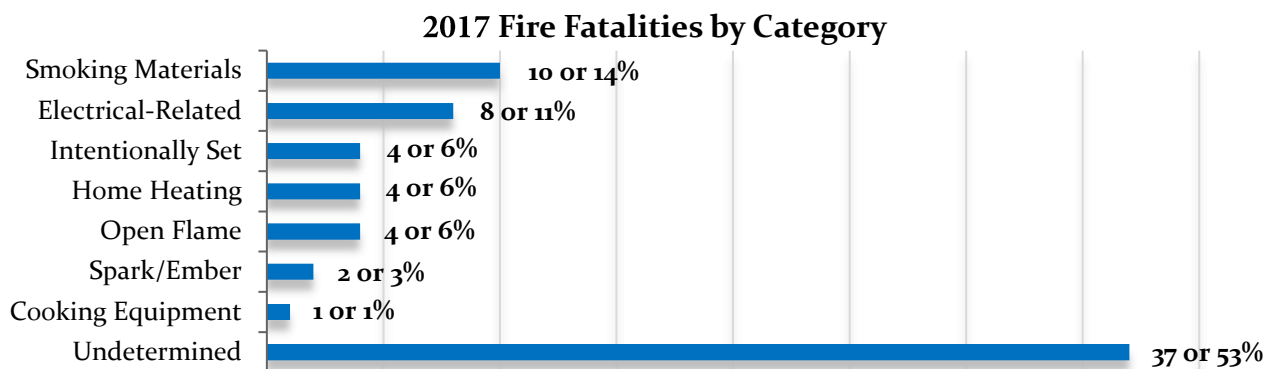
Electrical-related fires were the second leading cause of fire fatalities. These fires were attributed to misuse or poor maintenance of electrical equipment, improperly installed wiring, overloaded circuits, or the use of extension cords in place of permanent wiring.

The third leading causes of fire fatalities were directly attributed to three types of fires: intentionally set, home heating, and open flame fires.

Intentionally set – These fatalities resulted from fires of an incendiary nature (arson), or persons committing suicide. In some cases, psychological disturbances or impairment from drugs and/or alcohol were contributing factors.

Home heating and open flame – these fires were chiefly unintentional in nature and attributed to combustible materials being too close to a heat source, unattended candles/incense sticks, unsupervised individuals, and sparks caused by equipment.

In the case of undetermined fires, this category is comprised of fires that have not yet been investigated, those that have been investigated, or are under investigation, and have insufficient information to classify further.



RISK BY AGE AND GENDER

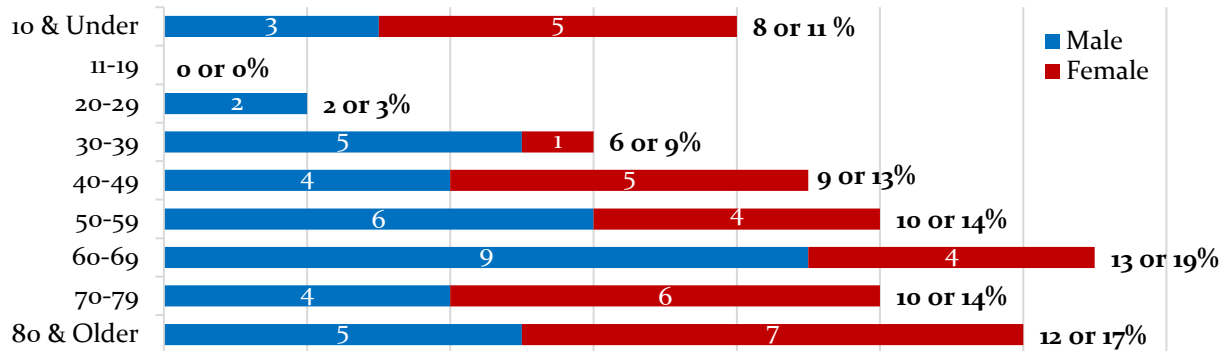
Age and gender are factors that may impact an individual's ability to escape a fire. As people age, they may become unable to react quickly in emergency situations, they may take medications that slow their ability to make rapid decisions, or they may not be able to hear smoke alarms sounding.

Overall, approximately 50 percent of fire death victims were age 60 or older; this group faced the greatest relative risk of dying in a fire. Like age, gender also plays a role in the risk of death. Over the past five years, state fire fatality figures indicate that more men die in fires

than women. Fire fatality reports indicated that approximately 54 percent of fire victims were male.

Eleven percent of fire fatality victims were children ages 10 and under; the majority of these fires were related to unsafe home heating behaviors during the colder winter months. Children are at significant risk in fire situations. Young children may not be capable of escaping or knowing the dangers of fire exposure. Their ability to escape may be dependent upon other occupants.

Fire Deaths by Age and Sex of Victim



MULTIPLE DEATH INCIDENTS

FEBRUARY

An elderly couple and their adult son died from injuries they sustained when their home caught fire. The source of ignition remains undetermined. It is unknown if there were smoke alarms present in the home.

APRIL

- Two elderly women died in a house fire. Investigators were unable to determine the source of ignition. The home did not have working smoke alarms.
- An elderly couple were killed when a fire broke out in their home. Investigators were unable to determine the source of ignition. The home did not have working smoke alarms.

JULY

- A house fire resulted in the death of two children under the age of 10. The source of ignition is currently undetermined. Contributing factor was sleeping. It is unknown if there were smoke alarms present in the home.
- A father and son (under the age of 5) were unable to escape their four-plex after it caught fire. The fire was likely due to electrical issues inside the home. It is unknown if smoke alarms were present.
- A mobile home fire killed a man and woman. Reported intoxication from alcohol or drugs may have contributed to their inability to escape. It is unknown if there were smoke alarms present in the home.

OCTOBER

A family of four was killed when their home caught fire. The source of ignition is currently undetermined. Working smoke alarms did not alert the occupants. Age and sleeping were contributing factors.

FIRE FATALITIES AND FIRE PROTECTION DEVICES

Properly installed and maintained fire protection devices such as smoke alarms and fire sprinklers, play a key role in reducing the loss of life in fires. According to the United States Fire Administration, three out of five home fire deaths result from fires in properties without working smoke alarms.

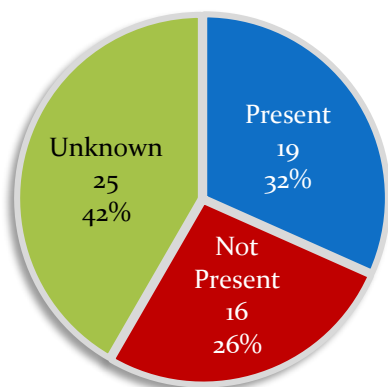
Smoke alarms are designed to detect smoke and provide early notification to building occupants. Fire sprinklers provide critical fire suppression and occupant protection, reducing the risk of dying in a home fire by 81 percent².

The charts below illustrate the features of fire protection reported for the 60 structure fire fatalities that occurred.

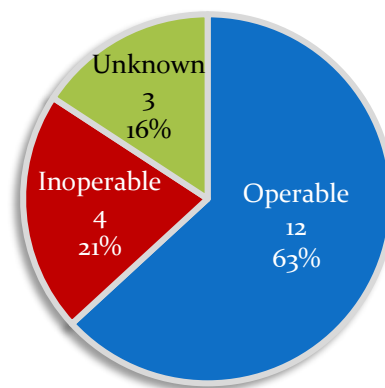
Findings for smoke alarms:

- Twelve fire fatalities occurred in areas where smoke alarms were present and operational. Human factors – such as the person’s age, being asleep, under the influence of drugs or alcohol, or having physical or mental impairment, may have contributed to the individual not escaping the fire.
- Four fire fatalities occurred where the smoke alarms or detectors were reported to be inoperable.

Presence of Smoke Alarm



Operation of Smoke Alarm



Findings for fire sprinklers:

Two separate fatal fires occurred in rooms equipped with fire sprinkler suppression systems. One victim’s inability to escape was attributed to physical impairment, the other victim was possibly impaired by alcohol or drugs.

² Source: National Fire Protection Association figures.

ACKNOWLEDGEMENTS

The Washington State Fire Marshal's Office greatly appreciates the cooperation received from our fire and law enforcement stakeholders in providing the necessary incident data used in the preparation of this annual report. To submit questions or comments regarding this report, please email the following: firesprinklers@wsp.wa.gov.

PREVENT FIRES
IT'S YOUR JOB!