Hospital Fires (2012–2014)

For each year from 2012 to 2014, an estimated 5,700 medical facility fires were reported to fire departments in the United States. Nearly a fifth of those (1,100 fires) were in hospitals. It is estimated that these fires caused fewer than five deaths, 25 injuries and $5 million in property loss per year.[1]

Loss Measures for Hospitals and All Other Medical Facility Fires (Three-Year Average, 2012–2014)
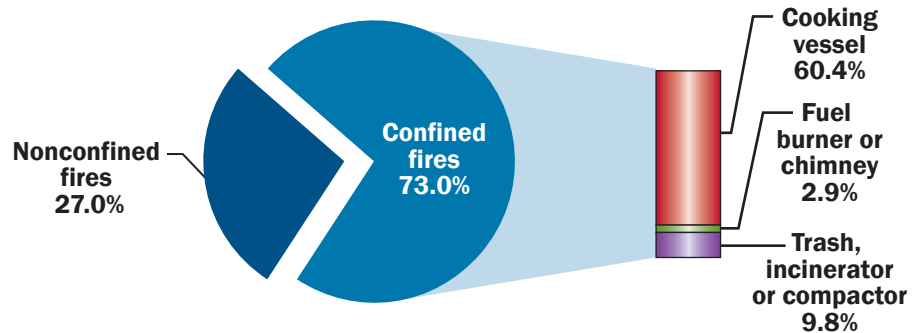
Loss Measure	Hospital Fires	All Other Medical Facility Fires
Average Loss:		
Fatalities/1,000 Fires	0.4	0.6
Injuries/1,000 Fires	17.3	19.6
Dollar Loss/Fire	$6,030	$11,290

Source: National Fire Incident Reporting System (NFIRS) 5.0.

The average number of fatalities per 1,000 hospital fires was lower than the same measure for all other medical facility fires. In addition, the number of injuries was also lower than that of other medical facilities.[2]
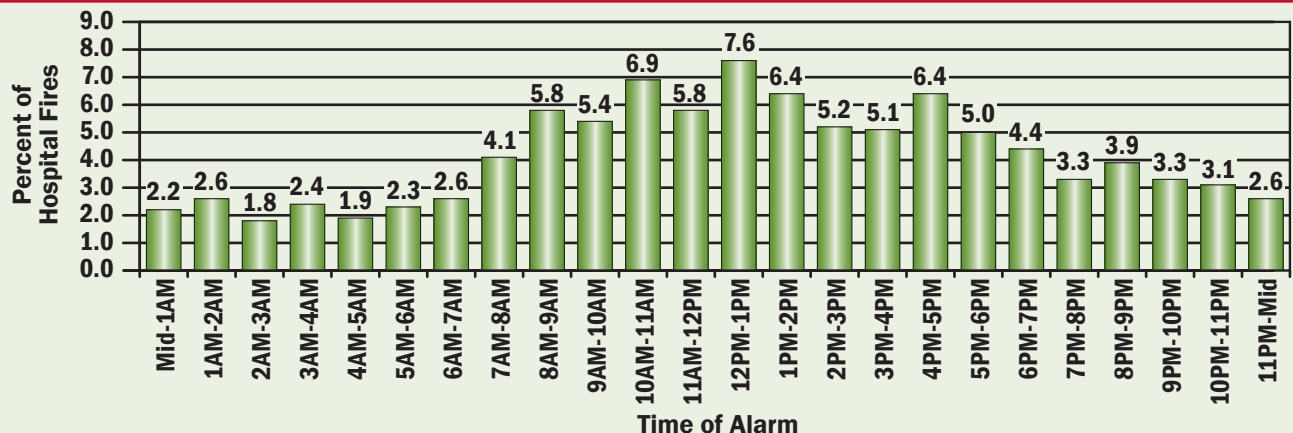
The majority of hospital fires were fires that were confined to cooking pots (60 percent). Confined fires are smaller fires that rarely result in death, serious injury or large content losses.[3] Fires in trash bins, incinerators or compactors composed 10 percent of hospital fires, while 3 percent were fuel burner or chimney fires. Nonconfined fires, generally larger structure fires, made up 27 percent of hospital fires.

Hospital Fires by Incident Type (2012–2014)

Nonconfined fires 27.0%
Confined fires 73.0%
Cooking vessel 60.4%
Fuel burner or chimney 2.9%
Trash, incinerator or compactor 9.8%

Source: NFIRS 5.0.

Hospital Fires by Time of Alarm (2012–2014)

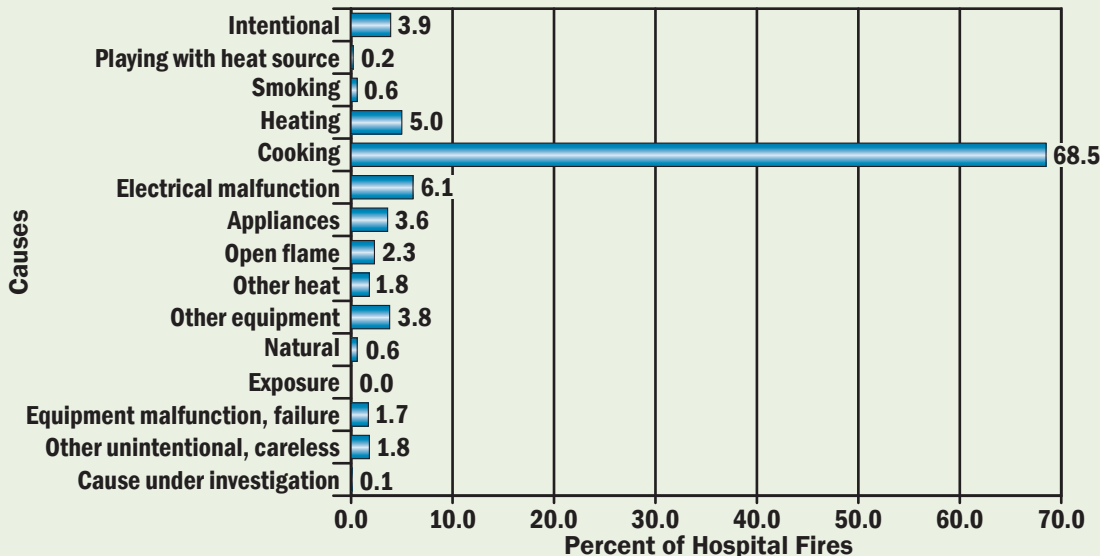| Time of Alarm	Percent of Hospital Fires
Mid-1AM	2.2
1AM-2AM	2.6
2AM-3AM	1.8
3AM-4AM	2.4
4AM-5AM	1.9
5AM-6AM	2.3
6AM-7AM	2.6
7AM-8AM	4.1
8AM-9AM	5.8
9AM-10AM	5.4
10AM-11AM	6.9
11AM-12PM	5.8
12PM-1PM	7.6
1PM-2PM	6.4
2PM-3PM	5.2
3PM-4PM	5.1
4PM-5PM	6.4
5PM-6PM	5.0
6PM-7PM	4.4
7PM-8PM	3.3
8PM-9PM	3.9
9PM-10PM	3.3
10PM-11PM	3.1
11PM-Mid	2.6

Source: NFIRS 5.0.
Note: Total percentages do not add up to 100 percent due to rounding.

Hospital fires occurred most frequently from 8 a.m. to 6 p.m., accounting for 60 percent of the fires. The fires peaked between the hour of noon and 1 p.m. This period of high fire incidence coincides with lunchtime meal preparations, as cooking is the leading cause of hospital fires.

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Causes of Hospital Fires (2012–2014)

Causes (Percent of Hospital Fires)

- Intentional: 3.9
- Playing with heat source: 0.2
- Smoking: 0.6
- Heating: 5.0
- Cooking: 68.5
- Electrical malfunction: 6.1
- Appliances: 3.6
- Open flame: 2.3
- Other heat: 1.8
- Other equipment: 3.8
- Natural: 0.6
- Exposure: 0.0
- Equipment malfunction, failure: 1.7
- Other unintentional, careless: 1.8
- Cause under investigation: 0.1

Source: NFIRS 5.0.
Note: Percentages are adjusted for those fires with unknown values of cause. Ten percent of hospital fires had unknown values of cause.

The leading causes of all hospital fires were:

- Cooking (68 percent).
- Electrical malfunction (6 percent).
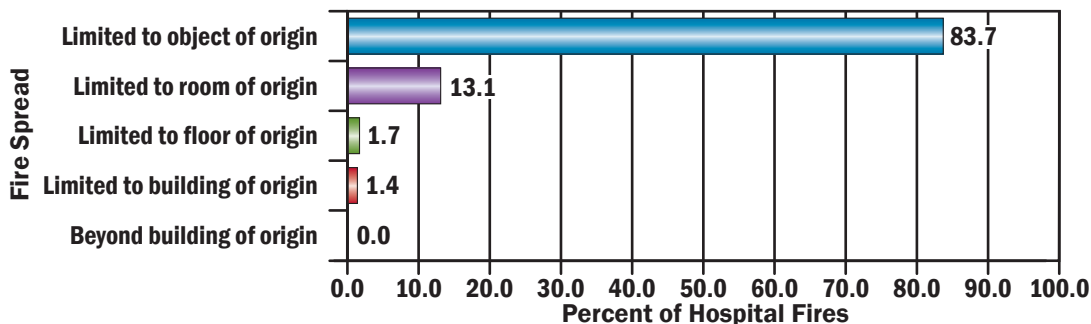- Heating (5 percent).

While cooking was the leading reported cause of hospital fires overall, it only accounted for 6 percent of all nonconfined hospital fires. Nonconfined fires are larger, more serious fires.

The leading causes of nonconfined hospital fires were:

- Electrical malfunction (22 percent).
- Appliances (13 percent).
- Intentional actions (12 percent).
- Other equipment (11 percent).

Eighty-four percent of all hospital fires were limited to the object of origin. Only 3 percent extended beyond the room of origin.

Extent of Fire Spread in Hospital Fires (2012–2014)

Fire Spread (Percent of Hospital Fires)

- Limited to object of origin: 83.7
- Limited to room of origin: 13.1
- Limited to floor of origin: 1.7
- Limited to building of origin: 1.4
- Beyond building of origin: 0.0

Source: NFIRS 5.0.
Note: Total percentages do not add up to 100 percent due to rounding.

For more information on hospitals, including patient experience and quality of care data, please visit: https://www.medicare.gov/hospitalcompare/About/What-Is-HOS.html.

For additional fire statistics, please visit http://www.usfa.fema.gov/data/statistics/.

Sources: NFIRS 5.0 and the National Fire Protection Association.
Notes: [1] Medical facilities are defined by Property Use codes 311 to 343. Hospitals are defined by Property Use code 331. Fires are defined as a subset of nonresidential building fires in NFIRS by using Incident Types 111 to 123 (excluding Incident Type 112). For Incident Types 113 to 118, the Structure Type is 1, 2 or null, and for Incident Types 111 and 120 to 123, the Structure Type is 1 or 2. Aid Types 3 (mutual aid given) and 4 (automatic aid given) were excluded to avoid double counting of incidents. Estimates of fires are rounded to the nearest 100, deaths to the nearest five, injuries to the nearest 25, and dollar loss to the nearest million dollars.
[2] The average loss measures computed from the NFIRS data alone in the table differ from the average loss measures computed from national estimates. Average loss for fatalities and injuries is computed per 1,000 fires. Average dollar loss is computed per fire and rounded to the nearest $10. The 2012 and 2013 dollar-loss values were adjusted to 2014 dollars.
[3] In NFIRS, confined fires are defined by Incident Types 113 to 118.

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