

**POSSIBLE IMPAIRMENT BY ALCOHOL OR DRUGS
AS A CONTRIBUTING FACTOR IN HOME FIRE DEATHS**

Ben Evarts

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**National Fire Protection Association
Fire Analysis and Research Division**

Abstract

Based on data reported by the fire service, NFPA estimates that possible impairment by alcohol or drugs was a factor contributing to an average of 380, or 14%, of home fire deaths annually in 2005-2009. Although this percentage is lower than that typically found in studies based autopsy reports, data from the fire service about the fire deaths with alcohol involvement provides for a more detailed understanding of the circumstances of the fires and victim demographics. Seventy-three percent of the victims were male. Ninety percent were over 14 and under 65 years of age. Forty-two percent of these deaths resulted from fires started by smoking materials. At the time of the incident, 51% of the victims were in the area of origin and involved in the ignition.

These estimates are based on data from the U.S. Fire Administration's (USFA's) National Fire Incident Reporting System (NFIRS) and the National Fire Protection Association's (NFPA's) annual fire department experience survey.

Keywords: fire statistics, home fires, alcohol, residential fires, drugs, fire victims

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We are also grateful to the U.S. Fire Administration for its work in developing, coordinating, and maintaining NFIRS.

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National Fire Protection Association
One-Stop Data Shop
1 Batterymarch Park
Quincy, MA 02169-7471
www.nfpa.org
e-mail: osds@nfpa.org
phone: 617-984-7443

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Executive Summary

“Possibly impaired by alcohol” was identified as a contributing factor in an annual average of 310, or 12%, of home fire deaths from 2005 to 2009. “Possibly impaired by other drug or chemical” was a contributing factor in 130, or 5%, of the deaths. In some cases, both of these factors were cited. In all, a possible impairment by either alcohol or drugs was a factor in an average of 380, or 14%, of all home fire deaths.

In this analysis, national estimates derived from the U.S. Fire Administration’s National Fire Incident Reporting System (NFIRS) and NFPA’s annual fire department experience survey are used to show the causes and circumstances of home fire deaths of victims with either “possibly impaired by alcohol” or “possibly impaired by other alcohol or drug” coded as a human factor contributing to fatal injury.

When possible drug or alcohol impairment was a factor contributing to home fire death, 73% of the victims were male. Men were more likely to be drinkers and to drink in larger quantities than women. Ninety percent of victims were between 15 and 64 years of age, inclusive. According to a report published by the CDC, older adults were less likely to be current drinkers or to drink heavily.

In fire deaths in which alcohol or drug impairment was a possible factor, 42% of the deaths resulted from fires started by smoking materials (i.e., lighted tobacco products but not matches or lighters). Heating equipment was involved in 17% of these deaths, and cooking equipment in 13%. Fifteen percent of the victims died from fires that were intentionally set.

When possible alcohol or drug impairment contributed to the death, 51% of the victims with were in the area of origin at the time the incident began *and* involved in ignition. This was true for 40% of home fire victims overall. Only 35% of the possibly impaired victims were outside of the area of origin when the fire started, compared with 48% of victims overall.

Upholstered furniture was first ignited in 26% of the deaths and mattresses or bedding in 18% of the fatalities when possible alcohol or drug impairment contributed to the fatal injury. In more than half (55%) of the upholstered furniture deaths with possible alcohol or drug impairment, the victim was involved in the ignition and in the area of origin when the fire started.

Twenty-eight percent of the deaths in which possible alcohol or drug impairment was a factor resulted from fires that started in the living room, family room, or den; 25% from fires that began in a bedroom; and 14% died from fires that started in the kitchen.

When possible alcohol or drug impairment was a contributing factor, 40% of the people who died in home fires were fatally injured while they slept. Eleven percent of the victims were acting irrationally compared to only 6% of overall home fire victims.

Properly installed and maintained smoke alarms are necessary to provide a warning of any fire to all occupants. Home fire sprinkler systems provide even greater protection. These systems respond quickly to reduce the heat, flames, and smoke from a fire regardless of what the occupant does. Sprinklers can control or contain the fire until help arrives. More information about home fire sprinklers may be found at <http://www.firesprinklerinitiative.org/>