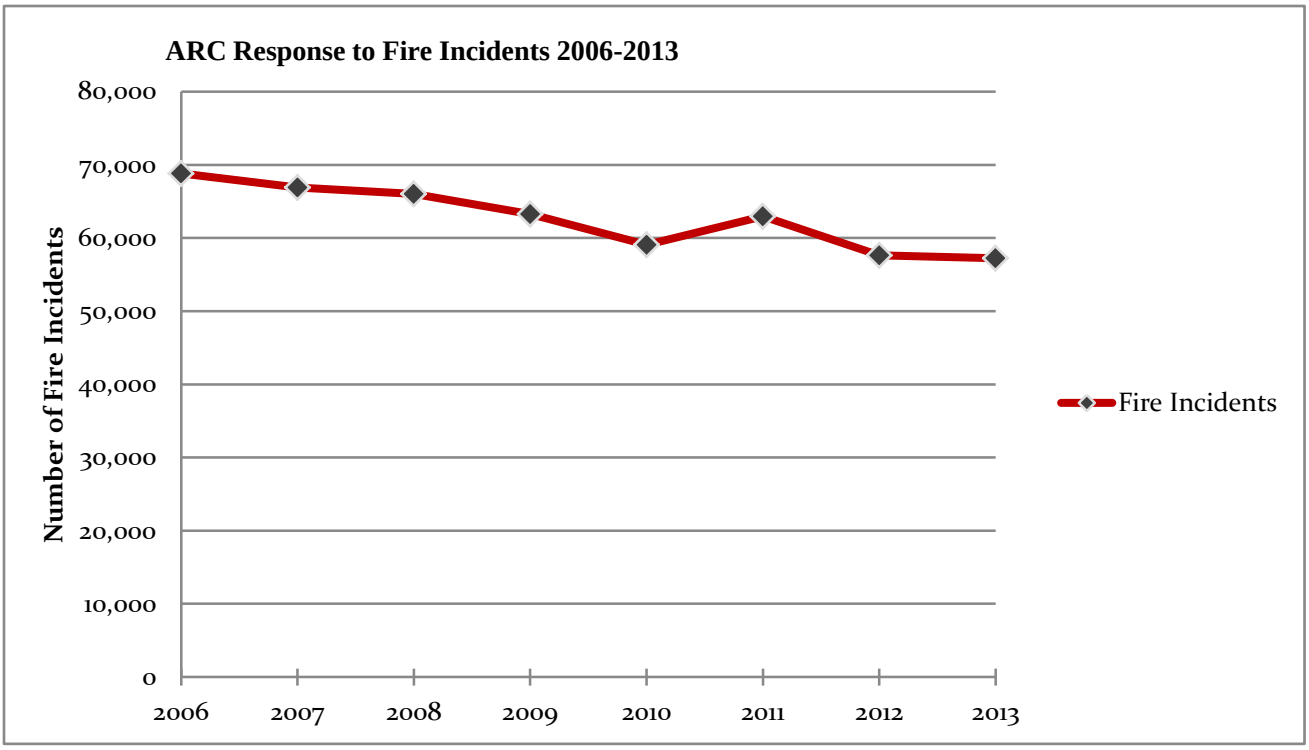
Home Fire and Smoke Alarm Summary Fact Sheet

Fire Loss in the United States:

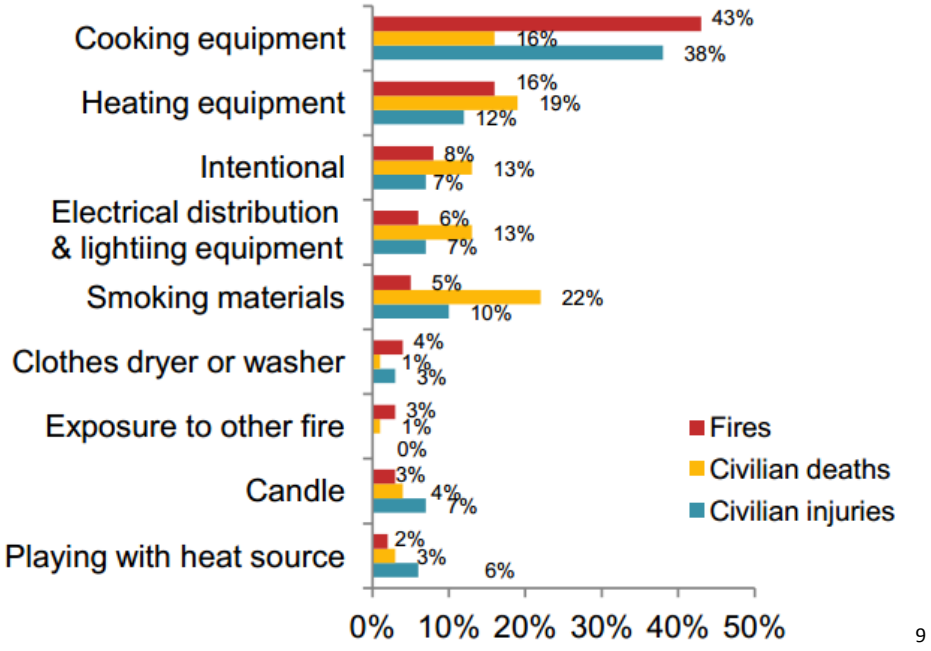
- Home fires in the United States kill more than 2,500 people annually and cause an average of 13,000 injuries. [1] (These figures do not include firefighter deaths or injuries.)
- Fire Departments respond to approximately 366,600 home fires a year, including small fires that are confined to—for example—a stovetop. [2] On average, the American Red Cross is called to help affected residents in 63,000 of these cases.
- The total cost for treating fire injuries and burns amounts to $1.3 billion per year, while lost productivity due to injuries leads to an additional $6.2 billion in losses. [3]
- The United States mortality rate from fires ranks eighth among the 25 developed countries for which statistics are available. [4]
- Residential fires destroy approximately $7.2 billion worth of property every year. [5]
- Home fires account for 74 percent of all structure fires and are responsible for 68 percent of structure fire loss. [6]
- A strong correlation exists between home fire deaths and certain socioeconomic and demographic factors.



Home Fire Leading Causes:

- Cooking fires account for 43 percent of all home fires in the United States and are the leading cause of fire in suburban and urban communities. [7]
- In rural communities that have less than 20,000 residents heating equipment is the leading cause of home fires. These fires are more than twice as likely to occur in rural dwellings when compared to homes in metropolitan areas. [8]

Major Causes of Home Structure Fires

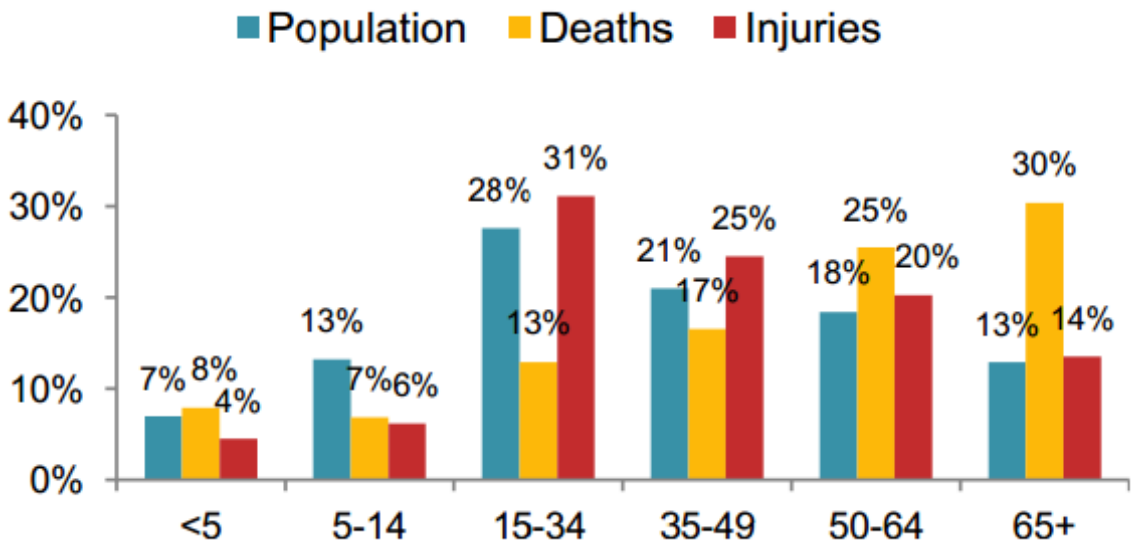


9

Home Fire Deaths and Injuries:

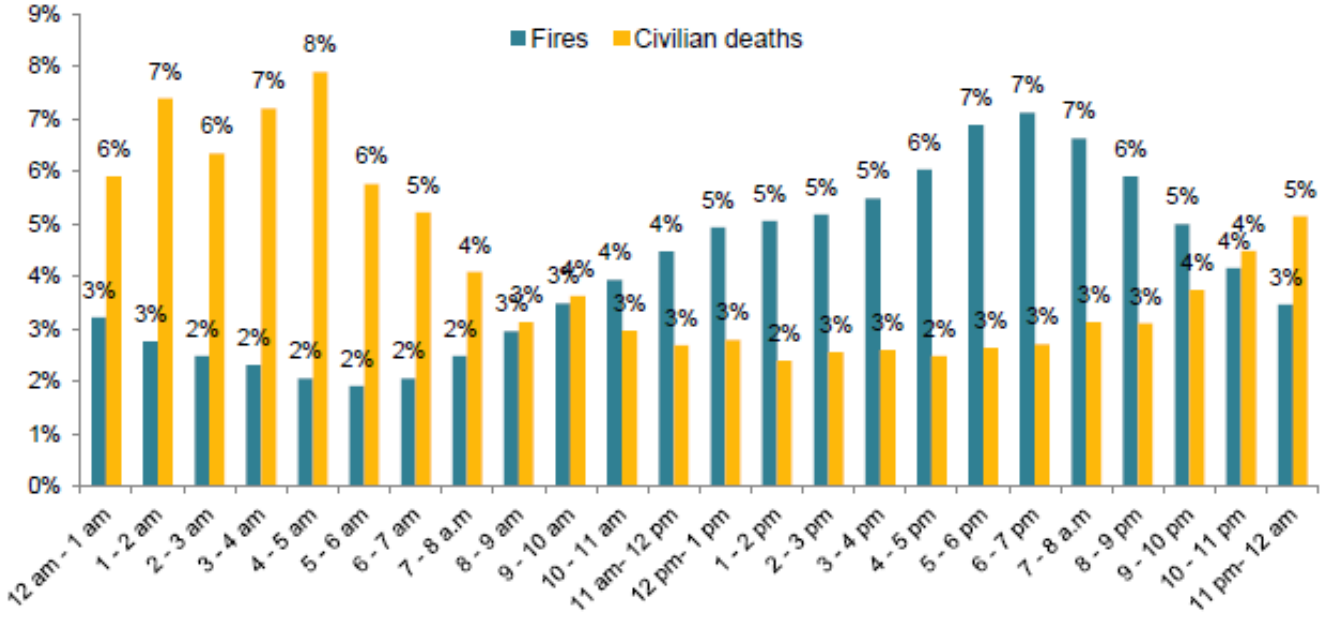
- Smoking is the leading cause of fire-related fatalities; these fires account for 22 percent of all fire deaths. [10]
- Cooking fires are responsible for 38 percent of all fire-related injuries. [11]
- Approximately 80 percent of home fire deaths are related to asphyxiation, which is caused by breathing in poisonous smoke. [12]
- Young children are more likely to be killed by a home fire while asleep, while older adults are more likely to die while escaping or taking other protective actions.
- While only 20 percent of home fires occur between 11:00pm and 7:00am, over half of all home fire deaths occur at night. [13]

Home Fire Deaths and Injuries by Age Group



14

Home Structure Fires by Alarm Time

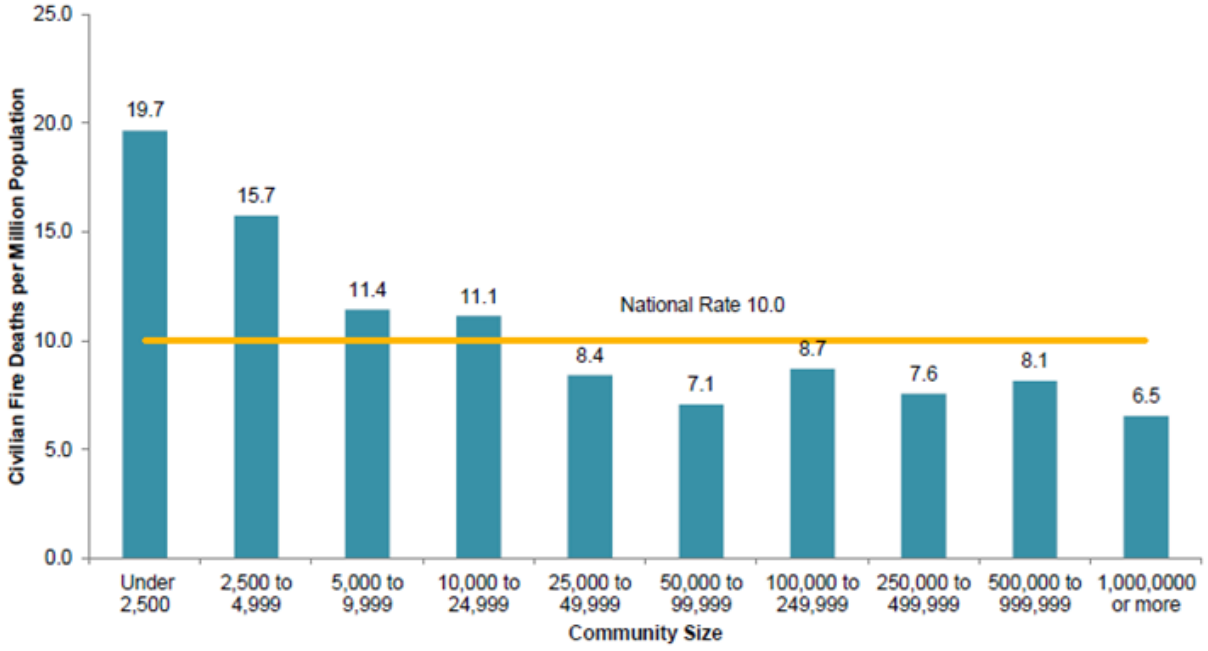


15

Home Fire Risk in Rural Communities:

- Smoke alarms are either missing or non-functional in 73 percent of rural home fires. [16]
- A strong inverse correlation exists between community size and the risk of fire related fatalities. Civilian fire death rates per million population are nearly twice as high in communities with 25,000 residents or less. [17]
- On average, flame damage to homes in rural areas is more extensive than in non-rural areas. Rural areas typically suffer worse from home fire damage due to the following factors:
    - emergency response times are usually longer due to greater travel distances
    - fires typically burn longer before being reported due to lower population densities [18]

Civilian Fire Deaths per Million Population by Community Size

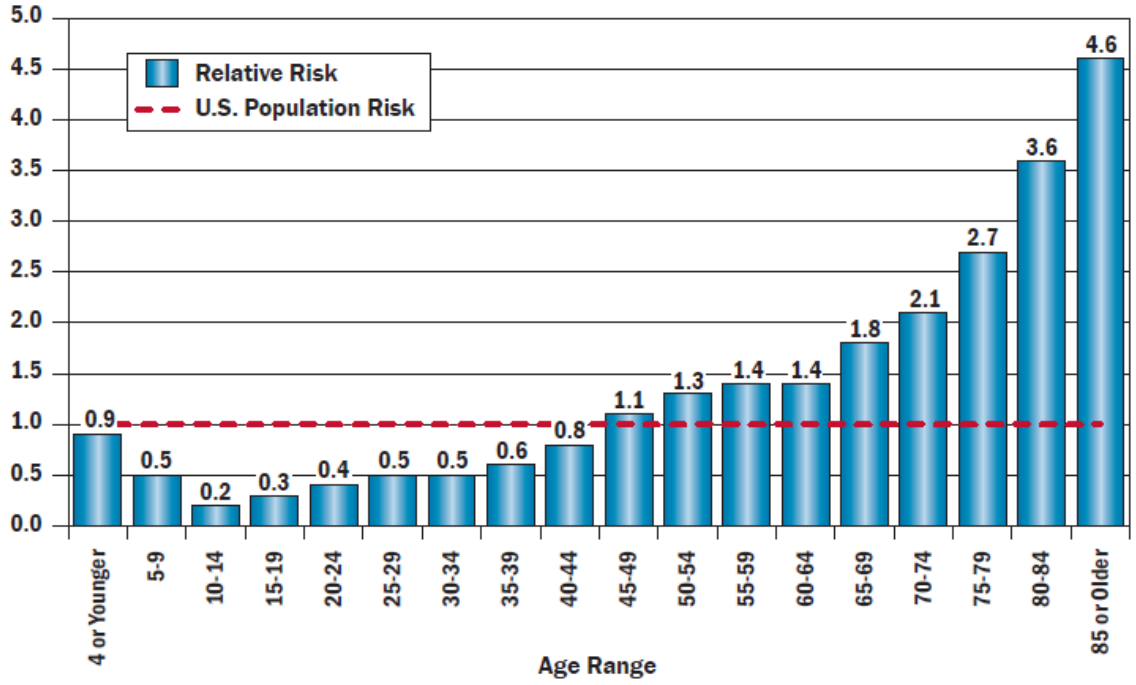


19

Home Fire Risk by Age:

- Adults over the age of 65 are more than twice as likely to die in home fires when compared to the average American; furthermore, the heightened risk for seniors continues to increase as they grow older. [20]
- While many age groups have seen a reduction in home fire deaths over the past 30 years, senior death rates have actually increased by approximately 10 percent. [21]
- Small children ages 5 and under are at a heightened fire risk. They are almost one and a half times as likely to die in a home fire when compared to all other youth. [22]
- For Children younger than 15, exposure to smoke and fire is the third leading cause of death after transportation accidents and drowning. [23]
- Although child fatalities have been significantly reduced over the past 20 years, youth ages 5 and under are still eight times as likely to die as a result of playing with heat sources when compared to other age groups. [24]

Relative Risk of Fire Death by Age

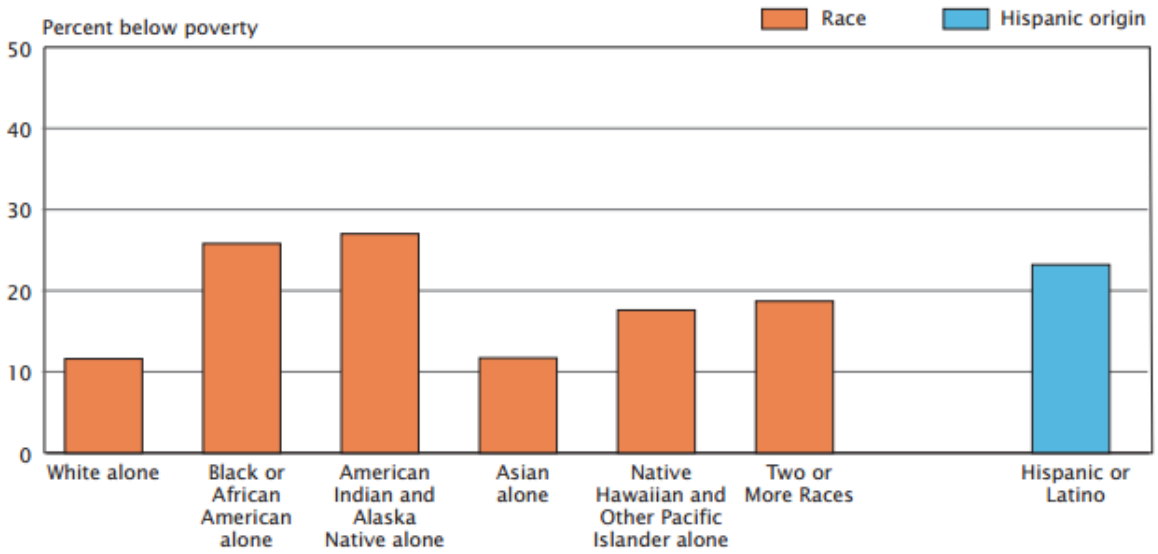


25

Home Fire Risk by Race

- On average African Americans account for 20 percent of all fire deaths even though they only represent 13 percent of the population. [26]
- Studies have found a causal relationship between poverty and home fire risk. Native American and African American communities represent the two leading at-risk communities for home fire; [27] these communities also have the two highest per-capita poverty rates in the United States.

U.S. Census Bureau's Demographics of Poverty



28

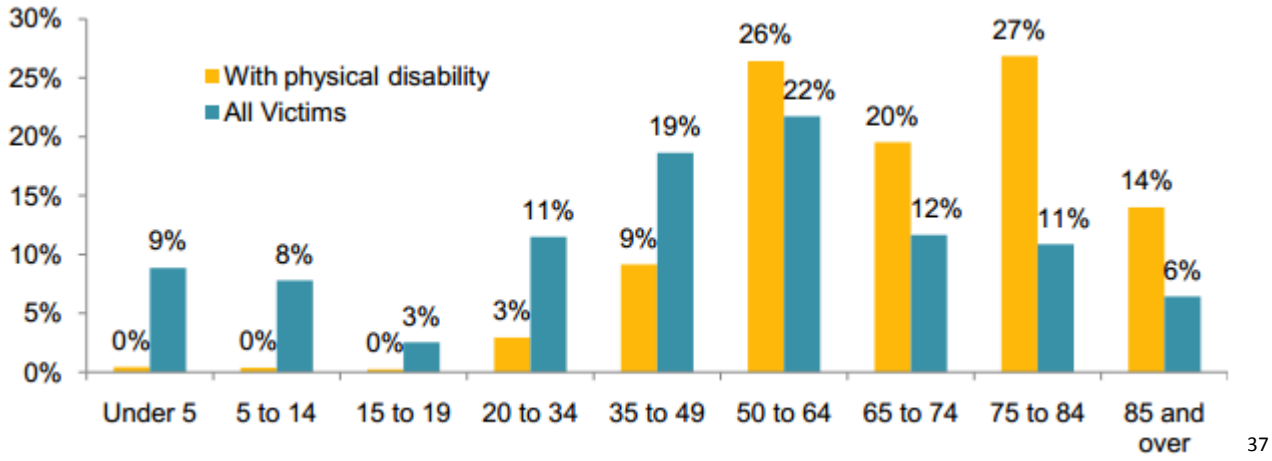
Home Fire Risk and Poverty:

- Six out of the top ten most impoverished states also have the highest per capita fire fatalities. [29]
- Individuals living at or below the poverty line may find it cost prohibitive to purchase fire-safe products, smoke alarms, and fire extinguishers. Additionally, many of these individuals reside in older homes and apartment buildings that tend to be more susceptible to fire loss.
- Access to reliable fire safety information and resources is often sparse in impoverished communities, increasing the overall risk associated with home fire. [30]

Home Fire Risk for Individuals with Physical Disabilities or Other Functional Needs:

- Approximately one in every five Americans has some form of disability or functional need. [31]
- Physical disability is a contributing factor in 14 percent of all home fire deaths. [32]
- More than half of all physically disabled fire victims were involved in accidental ignition and were in the room of origin when the fire started. [33] Of these fires, smoking and cooking related incidents are the two leading causes. [34]
- Intentional fires account for 40 percent of all home fires amongst individuals with mental disabilities. [35]
- Forty-one percent of disabled victims were killed in fires started by smoking materials, whereas smoking accidents were responsible for only about 25 percent of all home fire victims amongst the general population. [36]

Home Fire Deaths with Physical Disability as a Factor by Age of Victim



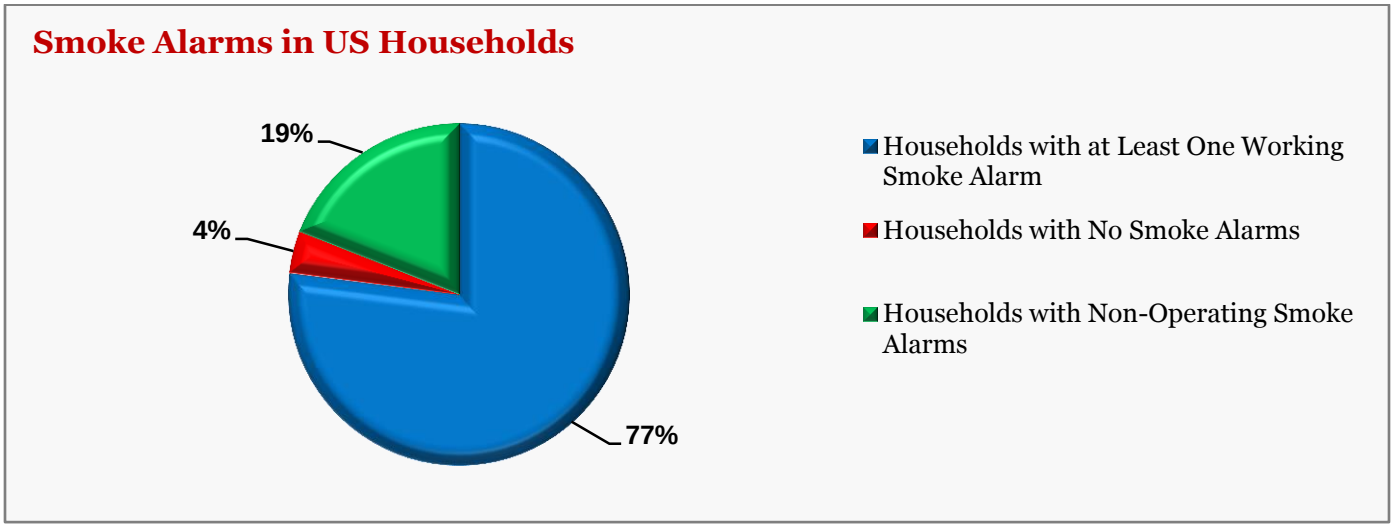
37

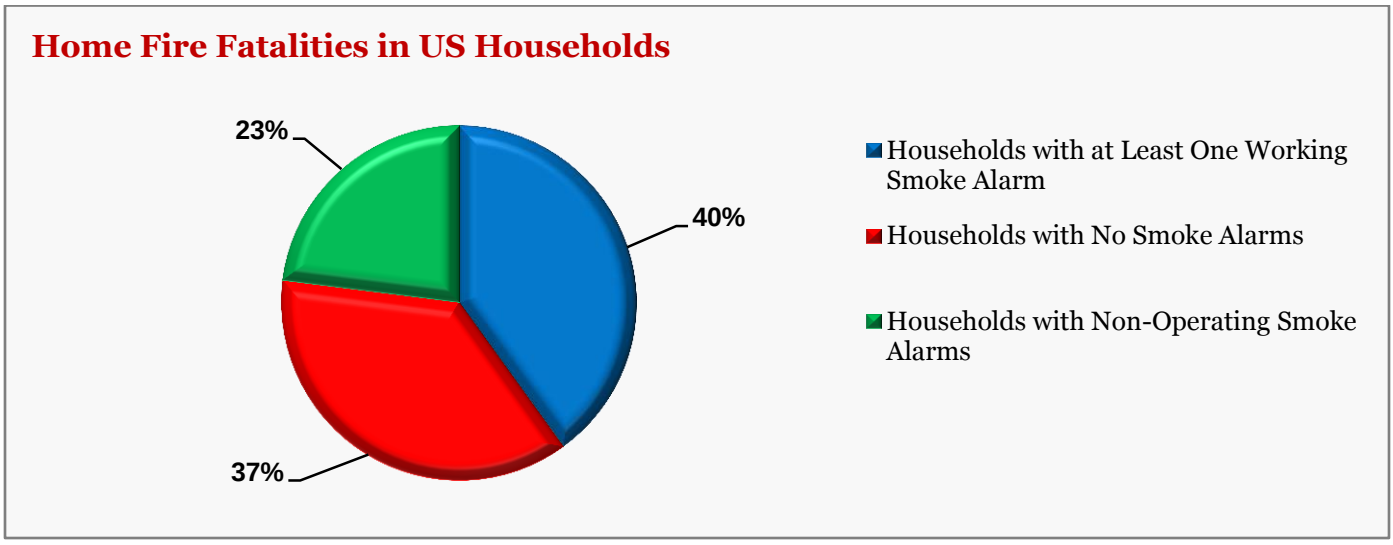
- Fifty-five percent of fire victims with physical disabilities died in homes that had adequate smoke alarm coverage, whereas only 38 percent of the remainder of all fire victims had working smoke alarms. A comprehensive program that addresses fire escape planning, cooking safety, and smoking in bed may help to address the root causes behind most fire fatalities in this segment of the population. [38]

Home Fire and Smoke Alarm Summary Fact Sheet

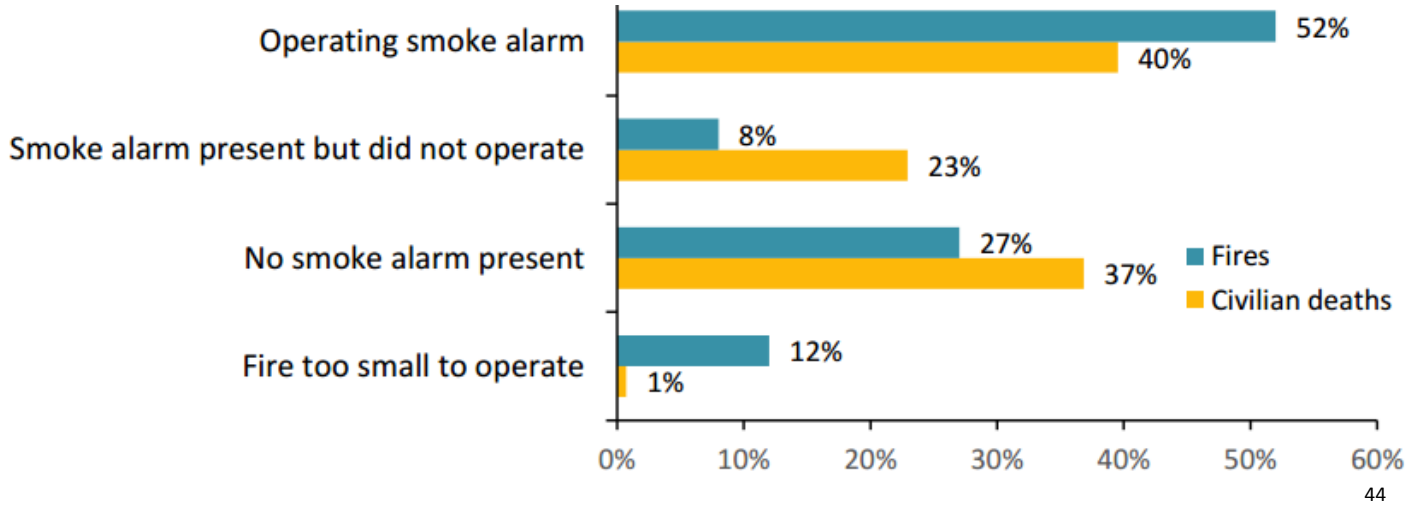
Smoke Alarm Facts:

- Nearly two-thirds of all fire-related deaths occur in homes that have no functioning smoke alarms. [39]
- Working smoke alarms cut the risk of dying in home fires by half. [40]
- Homes without smoke alarms are 15 times as likely to report a home fire as those with smoke alarms installed. [41]
- Best estimates suggest that only 77 percent of US homes have at least one functioning smoke alarm. [42]
- The only intervention proven more effective than smoke alarms is fire sprinklers. Sprinklers decrease the fatality rate for home fires by 83 percent. Additionally, this equipment decreases the average dollar loss per home fire by 69 percent. [43]





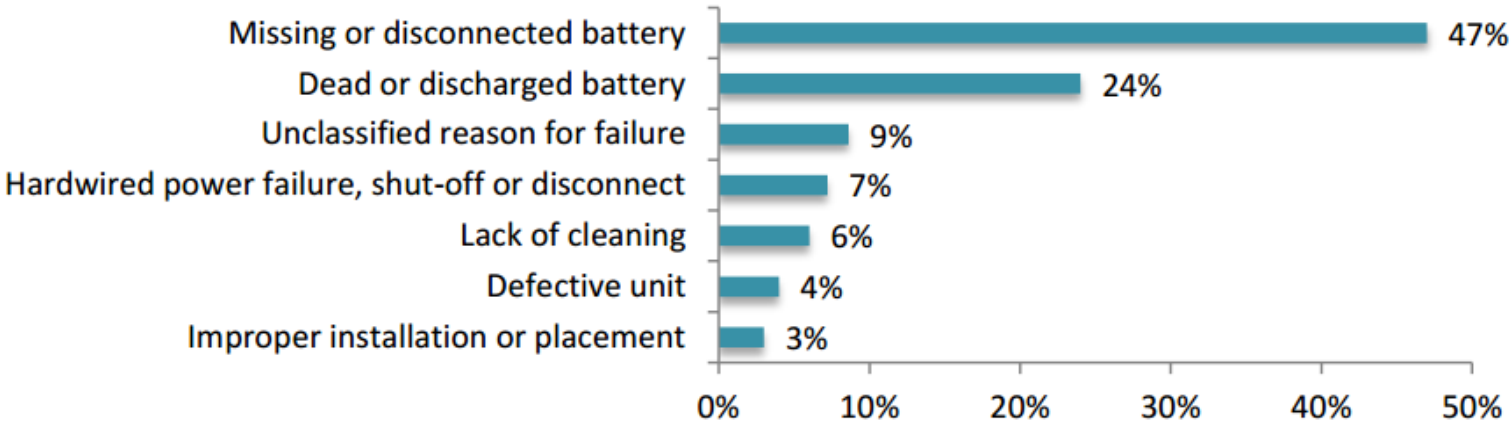
Reported Home Structure Fires and Fire Deaths by Smoke Alarm Performance 2007-2011



44

- When smoke alarms fail to operate, it is usually because of human error. Almost one-quarter of smoke alarm failures are due to dead batteries. [45]
- Loud, low frequency auditory signals are most effective in waking persons with moderate to severe hearing loss. This signal type performs better than bed/pillow shakers and strobe lights. [46]

Reasons Smoke Alarms Fail to Operate in Home Structure Fires[47]



Home Fire and Smoke Alarm Summary Fact Sheet

Smoke Alarm Recommendations:

- The USFA recommends that every residence should be equipped with dual sensor alarms, or a combination of ionization and photoelectric smoke alarms.
- An ionization smoke alarm is generally more responsive to flaming fires, whereas a photoelectric smoke alarm is generally better at detecting smoldering fires.
- The NFPA recommends that smoke alarms should be located at least 10 feet away from cooking appliances in order to avoid nuisance alarms. In general, photoelectric alarms are better suited for these areas.
- Smoke alarms should be installed in every bedroom, outside each separate sleeping area and on every level of the home, including the basement.
- Non-Lithium powered smoke alarms should be tested monthly and have their batteries replaced yearly, or as soon as a low-battery warning is signaled.
- Smoke alarms should be kept clean by vacuuming over and around them regularly.
- Never remove the battery or disable a smoke alarm. If an alarm sounds while cooking or taking a shower, press the “hush” button and open a nearby door or window. You can also wave a towel in front of the unit to help clear the air.
- If your smoke alarm is sounding “nuisance alarms,” try locating it further away from kitchens and bathrooms.
- All smoke alarms should be replaced after ten years of use.

[1] NFPA's Home Structure Fires (2013)

[2] NFPA's Home Structure Fires (2013)

[3] Incidence and Economic Burden of Injuries in the United States (Finkelstein et al, 2006)

[4] The Geneva Association's World Fire Statistics (2009)

[5] NFPA's Home Structure Fires (2013)

[6] NFPA's Home Structure Fires (2013)

[7] USFA's Cooking Fires in Residential Buildings 2008-2010 (2013)

[8] USFA's The Rural Fire Problem in the United States (1997)

[9] NFPA's An Overview of the U.S. Home Fire Problem (2012)

[10] NFPA's An Overview of the U.S. Home Fire Problem (2012)

[11] NFPA's An Overview of the U.S. Home Fire Problem (2012)

[12] USFA's Smoke Alarm Presentation

[13] NFPA's Home Structure Fires (2013)

[14] NFPA's An Overview of the U.S. Home Fire Problem (2012)

[15] NFPA's Home Structure Fires (2013)

[16] USFA's The Rural Fire Problem in the United States (1997)

[17] NFPA's Fire Loss in the United States During 2012 (2013)

[18] USFA's The Rural Fire Problem in the United States (1997)

[19] NFPA's Fire Loss in the United States During 2012 (2013)

[20] NFPA's Characteristics of Home Fire Victims (2010)

[21] NFPA's Characteristics of Home Fire Victims (2010)

[22] NFPA's Characteristics of Home Fire Victims (2010)

[23] USFA's Fire Risk to Children in 2010 (2013)

[24] NFPA's Characteristics of Home Fire Victims (2010)

[25] USFA's Fire Risk in 2010 (2013)

[26] USFA's Fire Risk in 2010 (2013)

[27] NFPA's U.S. Unintentional Fire Death Rates by State (2012)

[28] U.S. Census Bureau's Poverty Rates for Selected Detailed Race and Hispanic Groups by State and Place 2007-2011 (2013)

[29] USFA's State Fire Death Rates and Relative Risk

[30] Home Fires in America- Progress and Opportunities (Ahrens, 2012)

[31] CDC's People with Disabilities

[32] NFPA's Physical Disability as a Factor in Home Fire Deaths (2011)

[33] NFPA's Characteristics of Home Fire Victims (2010)

[34] USFA's Residential Building Fires Involving Individuals with Disabilities (2011)

[35] USFA's Residential Building Fires Involving Individuals with Mental Disabilities (2011)

[36] NFPA's Physical Disability as a Factor in Home Fire Deaths (2011)

[37] NFPA's Physical Disability as a Factor in Home Fire Deaths (2011)

[38] NFPA's Physical Disability as a Factor in Home Fire Deaths (2011)

[39] NFPA's Home Structure Fires (2013)

[40] NFPA's Smoke Alarm Safety Tips

[41] USFA's Home Smoke Alarms White Paper (2006)

[42] NFPA's Smoke Alarms in U.S. Home Fires (2014)

[43] NFPA's U.S. Experience with Sprinklers (2013)

[44] NFPA's Smoke Alarms in U.S. Home Fires (2014)

[45] NFPA's Smoke Alarms in U.S. Home Fires (2014)

[46] NFPA's Smoke Alarms in U.S. Home Fires (2014)

[47] NFPA's Smoke Alarms in U.S. Home Fires (2014)