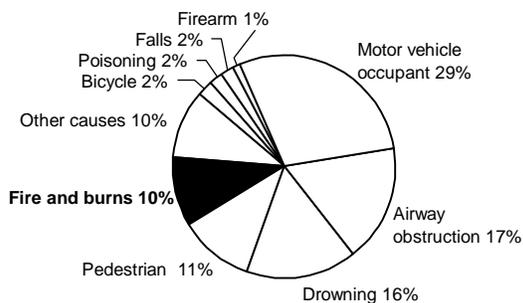




## FACTS ABOUT INJURIES TO CHILDREN BY RESIDENTIAL FIRES

### Leading Causes of Accidental Injury-Related Death for Children 14 and Under 2004



**In 2003, U.S. fire departments responded to an estimated 402,000 residential fires, or one every 79 seconds. These fires accounted for 25 percent of all reported fire incidents, yet they caused 80 percent of all fire-related deaths and 78 percent of all fire-related injuries.**

- In 2002, 474 children ages 14 and under died in residential fires. Fifty percent of these children were ages 4 and under. The fire and burn injury death rate among children ages 14 and under declined 64 percent from 1987 to 2002.
- Each year, nearly 40,000 children ages 14 and under are injured by fires in the home.
- More than 70 percent of all fire-related deaths are from smoke inhalation, caused by toxic gases produced as fires develop and spread. Burns are responsible for an additional 25 percent of fire-related deaths.
- Home fires and home fire-related deaths are more likely to occur during cold-weather months, December through March.
- The total annual cost of fire- and burn-related deaths among children ages 14 and under is more than \$2.6 billion.

**Young children, especially those ages 5 and under, are at the greatest risk from home fire-related death and injury, with a fire death rate twice the national average. A less acute perception of danger, less control over their environment and a limited ability to react promptly and properly to a fire contribute to this excess risk.**

- More than 30 percent of children ages 5 and under who die from home fires are asleep at the time, while one-fifth of these children are unable to act appropriately.
- More than 43 percent of residential fire-related deaths among children ages 9 and under occur when the child is attempting to escape, unable to act or acting irrationally. Although an escape plan may help to reduce these deaths, only 25 percent of households have developed and practiced a plan.

**Fires in the home are often caused by cooking equipment, smoking materials and child fire play.**

- Home cooking equipment is the leading cause of residential fires and fire-related injuries. However, residential fires caused by smoking materials (e.g., cigarettes) are the leading cause of fire-related death.
- Children playing with fire account for 4 percent of residential fires, yet cause 40 percent of residential fire-related deaths among children. Just more than half of all child-playing home fires begin in a bedroom.

- Two-thirds of child-play fires are started by children playing with matches or lighters. Studies indicate that, by age 12, half of all children have played with fire. Males are nearly twice as likely as females to have played with fire.

**Certain groups of children are at higher risk for residential fire-related injuries and deaths.**

- Children in homes without smoke alarms are at greater risk of fires and fire-related death and injury.
- Children from low-income families are at greater risk for fire-related death and injury, due to factors such as a lack of working smoke alarms, substandard housing, use of alternative heating sources and economic constraints on providing adequate adult supervision.
- African-American children are three times more likely than white children to die in a fire.
- Children living in rural areas have a dramatically higher risk of dying in a residential fire. Death rates in rural communities are more than twice the rates in large cities and more than three times higher than rates in large towns and small cities.
- The South has the highest fire-related death rate in the country, 21 percent higher than the national rate.
- People with a physical or cognitive disability are more than twice as likely to die in a house fire. Limited mobility may interfere with a child's ability to escape, and cognitive impairments may interfere with a child's awareness of imminent danger.

**Smoke alarms are extremely effective at preventing fire-related death and injury. Persons living in homes with smoke alarms typically have a fire-related death rate that is 40 to 50 percent less than the rate for those living in homes without alarms.**

- As of 1997, 94 percent of homes in the United States had at least one smoke alarm. However, only three-quarters of all homes had at least one *working* smoke alarm. Nearly 40 percent of all home fires and more than half of all fire-related deaths in the home occur in the 6 percent of U.S. homes that have no smoke alarms.
- A working smoke alarm is not present in two-thirds of the residential fires in which a child is injured or killed.
- The chances of dying in a residential fire are cut by an estimated 73 percent when automatic sprinkler systems are present. Yet, mainly due to their expense, sprinkler usage in homes is extremely low. However, the cost of sprinkler systems and their installation is being greatly reduced due to industry innovation.
- Smoke alarms and sprinkler systems combined could reduce fire-related deaths by 82 percent and injuries by 46 percent.
- Every \$30 smoke alarm generates \$870 in benefits to society.

**Many safety laws and regulations protect children from residential fire-related injury hazards.**

- Many states and the District of Columbia have laws that require smoke alarms to be used in both new and existing dwellings. A few states still have no comprehensive smoke alarm laws. Other states have a variety of laws covering specific situations, such as new dwellings or multi-occupancy dwellings only.
- Many localities currently have ordinances mandating automatic sprinkler systems in new residential homes.
- In 1994, the U.S. Consumer Product Safety Commission issued a mandatory safety standard requiring disposable and novelty cigarette lighters to be child-resistant. Since this standard has been in effect, the number of child-play lighter fires has declined 58 percent, and the numbers of deaths and injuries associated with these fires have declined by 31 percent and 26 percent, respectively.