Executive Summary

The South Carolina Division of Fire and Life Safety, Public Fire Education and Data Management Section of the Office of State Fire Marshal, sees the need for a standardized fire safety program targeted towards older Americans and Americans with disabilities. In our efforts to provide this information to South Carolina's Fire Service, we have developed a comprehensive lesson plan that addresses specific issues relating to fire safety with older Americans. In addition, we have included a series of reports and teaching tips produced by the United States Fire Administration addressing: Fire Risks for the Blind or Visually Impaired; Fire Risks for the Deaf or Hard of Hearing; and Fire Risks for the Mobility Impaired. As may be expected, the general lesson plan is applicable to all groups. Specific fire safety issues addressing the individual disabilities are included and may be incorporated into the lesson plan to suit the applicable audience.

Older adults are the fastest growing age group of the American population and are also one of the groups at highest risk for fire deaths. According to current National Fire Incident Reporting System data, elderly fire victims tend to be in close contact with the source of the fire that kills them. The leading causes of fire deaths in older Americans are smoking related, heating, and cooking incidents. Oftentimes, victims are injured or killed when their clothing, bedding, or upholstery ignites. Two-thirds of fire deaths in the elderly occur when the victim is sleeping or trying to escape, which reinforcing our need to stress the importance of preparing and practicing an escape plan, and adjusting that plan to take into consideration the physical capabilities of older adults.

The Get Alarmed, South Carolina Campaign, implemented in the late 1980's was a multifaceted approach to reach high-risk segments of our population. The focus of this campaign was directed towards the very young, elderly, and handicapped citizens in South Carolina. An educational awareness campaign was implemented stressing the need to practice fire safety, along with providing and installing smoke alarms at no charge to those in need. The campaign had a favorable impact on fire deaths and continues to be a major focus of our educational programs.

Graphs –

The Fire Problem and Older Adults

- People over the age of 65 are the fastest growing segment of the American population.

- Over 1,200 Americans over the age of 65 die as a result of a fire each year. Older adults comprise over 25 percent of fire deaths of all ages, and 30 percent of fire deaths that occur in the home.

- Fires and burns are a leading cause of deaths from unintentional injuries among older adults.

- Residential fires injure an average of 3,000 older adults each year.

- Fires caused by smoking are the leading cause of fire deaths in the elderly.

- Fires caused by cooking are the leading cause of fire-related injuries in the elderly.

- Elderly fire victims usually come in close contact with the heat source that starts the fire.

- Adults in the age group between 65 and 75 have a fire death rate twice that of the national average; between 75 and 85, three times the national average; and over 85 four times the national average.

Fire Risks

- The aging process, with its associated illnesses and impairments leave a person vulnerable to a variety of accidental injuries, including fires and burns.

- The likelihood of experiencing a severe disability increases with age. Impairments associated with the aging process, such as blindness or deafness, predispose the elderly to accidental injuries, including fires.

- Approximately 30 percent of non-institutionalized older adults live alone, placing them at higher risk for accidental injury.

- Group assisted living facilities and nursing homes pose unique fire risks to both their residents and firefighters.

- Nearly 20 percent of older adults live at or below the poverty line, and the relationship between poverty and fires is a compounding fire risk.

- Many older adults take multiple medications, the interaction of which can cause a variety of side effects, including confusion, that may alter the decision-making process and increase the potential for accidents.

- The impairments caused by the combination of alcohol and prescription drugs in older adults can be significant. Such impairments may lead to an increased likelihood of accidentally starting a fire, not detecting a fire, and not being able to escape a fire. *US Fire Administration-Fire Risk for the Older Adult

Blind or Visually Impaired

The blind or visually impaired people are faced with many challenges, not the least of which is personal safety. Interaction with an environment one cannot see creates potential health and safety hazards. As a result, blind or visually impaired people are at increased risk of injury and death in the event of a fire. Depending on the severity of vision loss, they may be more likely to ignite a fire accidentally through common household activities, while they are less likely to extinguish or escape one. Further, a blind or visually impaired individual is highly vulnerable to sustaining burs by attempting to suppress a small fire.

Practicing fire safety is the most effective means for a blind or visually impaired person to improve his or her chances of surviving a fire. For example, by planning and practicing an escape plan, a blind or visually impaired person can escape to safety, in the event of an actual emergency, with little time lost searching and feeling for an exit. The same general fire safety tips targeted at the seeing population address the needs of the blind or visually impaired. Unfortunately, blind or visually impaired people often have been overlooked by public fire education campaigns. Innovative mechanisms by which to disseminate these life-saving messages must be sought in order to raise awareness and foster fire safety practices in the blind and visually impaired community.

The most important finding are as follows:

- During an emergency, the senses on which visually impaired or blind individuals depend may be overwhelmed.

- High-decibel smoke alarms make it difficult for the blind individual to process audible clues and instruction effectively.

- Many buildings are not equipped with Braille or tactile signage for the visually impaired, hindering the individual’s ability to escape because of lack of directions.

- As they may not be able to process visual indicators of fire, individuals with visual impairments are at an increased risk for accidents involving fire and burn injuries.

- Public fire education is not generally formatted for, not directed to, the blind or visually impaired.

- Practicing fire safety, rather than using improved fire technology, is the most effective means by which blind or visually impaired people can improve their chances of surviving a fire.

Deaf and Hard of Hearing

Fire Safety is a much overlooked problem among people who are deaf or hard of hearing. They do not receive the same media, educational, or industry attention as the hearing population. Many advancements in fire injury and death prevention over the past century have not addressed the fire safety needs of the deaf community. The most significant of those inventions is the audible smoke alarm. Smoke alarms have been credited with saving thousands of lives from fires each year. Conventional alarms, however, work less well for those who cannot hear. Additionally, traditional fire safety messages do not address the unique needs of the deaf community. Fire safety messages more than likely will not reach this population due to the lack of effective distribution channels.

By raising the level of fire safety awareness for the def and hard-of-hearing community, and for the surrounding population, we can eliminate many fire risks. Groups representing people with hearing impairments must collaborate with the fire service to educate each other and reduce the risks posed by fire to non-hearing people.

The finds are summarized below:

- Visual assessment is the primary means for people with hearing impairments to process information vital to everyday living. These individuals cannot rely on traditional audible smoke alarms. They require visual alarms equipped with strobe lights or vibration devices.

- Vibrating beds and pillows have been developed to awaken people who are deaf or hard of hearing and alert them to the presence of a fire. These beds and pillows are wired to a smoke alarm and vibrate when the alarm is activated.

- A portion of the deaf and hard-of-hearing population is also blind or visually impaired. Visual strobe lights are ineffective for this group. A vibrating bed and pillow alarm must be used instead.

- While specialized detection and alarm devices are available, there is a dearth of information about how to obtain them, In addition, these devices are often prohibitively expensive.

- Many people who are deaf or hard-of-hearing are not aware of provisions in the Americans With Disabilities Act requiring that appropriate smoke alarms be provided by landlords, public buildings, etc.

- Public fire education is generally neither formatted for, nor directed to, people who are hearing impaired.

Mobility Impaired

People with mobility impairments are faced with many challenges in life. Personal safety, especially fire safety, is one challenge that many perceive as an obstacle. It does not have to be this way. By being aware of one's own special capabilities and following fire safety practices tailored to certain needs, the mobility-impaired person can lead a fire-safe life.

Mainstream fire safety education and fire protection devices are designed primarily with the able-bodied person in mind. Thus a scarcity of fire safety knowledge exists within both the mobility-impaired community and the fire service. Both groups must work to educate each other to decrease fire-related losses and injuries.

Principal finding are summarized below:

- People with mobility impairments represent a segment of the population with one of the highest risk of dying in a fire.

- The fire safety needs of people with mobility impairments are not addressed through mainstream public fire and life safety education.

- Fire safety engineering has not adequately addressed the capabilities of people with mobility impairments.

- Typical home construction may present people with disabilities with unnecessary impediments to escape.

- The mobility-impaired community is growing.

- Mobility impairments hinder attempts by the disabled not only to escape fire, but also to confine or extinguish small fires. US Fire Administration

FIRE SAFETY FOR OLDER AMERICANS

VISUALLY IMPAIRED OR BLIND

DEAF OR HARD OF HEARING

MOBILITY IMPAIRED