DEALING WITH FIRE SAFETY

Personal Care Homes
And
Assisted Living Facilities

Presented by:
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Our Objectives

- Recognize the need for fire safety
- Understand risk of residents – Human Factors
- Recognize fire hazards specific to homes
- Understand Codes and Standards
- Know what to do in the event of a fire - Fire Emergency Planning
- Recognize fire safety features in the building
- Know who is responsible
- Understand licensure demands
One-third (1,200) of all residential fire deaths are elderly. It is the sixth leading cause of death among older adults.

Older adults are 2 to 5 times more likely to die due to the affects of fire.

According to AARP, nearly 52% of assisted living residence have a cognitive impairment of some type.

Age, size, pre-existing physical conditions, respiratory capacity, and medication impact ability of residents to respond.
Residents pose an increased risk

- 58% reported one or more disabilities
- Many ignore the fire alarm
- Almost one-fourth say they cannot hear the alarm
- One-third want to try to find the source of the fire.
- Less than half say they are familiar with fire safety procedures in their home.
- These results confirm a greater risk in community or group living conditions\(^1\)

\(^1\) Source – Fire Safety Knowledge and Practices Among Residents on an Assisted Living a Facility, David Laslow, 2005
What are the hazards?

Candles
Heating equipment
Holiday decorations
Electrical wiring – cords and outlets

Smoking
Cooking
Codes and Standards

- **Uniform Construction Codes by Commonwealth**
  - International Code Council – 2009 Editions
    - Building Code
    - Fire Code
    - Mechanical Code
    - Electrical Code
    - Plumbing Code
    - Energy Conservation
    - Fuel Gas

- **Fire Codes by Federal Gov’t**
  - NFPA Codes and Standards
    - NFPA 1 – Fire Code
    - NFPA 13 – Automatic Sprinkler Systems
    - NFPA 72 – Fire Alarm and Signaling
    - NFPA 101 – Life Safety
Alternative Approaches

- Uniform Construction Codes by Commonwealth
  - International Code Council
    - Existing Building Code
    - Performance Code for Buildings and Facilities
- National Fire Codes and Standards
  - NFPA 101A – Guide on Alternative Approaches to Life Safety
    - Used when compliance is not feasible
    - Chapter on *Evacuation Capability* provides a method for determining assistance levels –

*DO NOT BE AFRAID OF IMPractical*
International Building Code

308.2 Group I-1. This occupancy shall include buildings, structures or parts thereof housing more than 16 persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services. *The occupants are capable of responding to an emergency situation without physical assistance from staff.* This group shall include, but not be limited to, the following:

- Alcohol and drug centers
- Assisted living facilities
- Congregate care facilities
- Convalescent facilities
- Group homes
- Halfway houses
- Residential board and care facilities
- Social rehabilitation facilities
PERSONAL CARE SERVICE. The care of residents who do not require chronic or convalescent medical or nursing care. Personal care involves responsibility for the safety of the resident while inside the building.

RESIDENTIAL CARE/ASSISTED LIVING FACILITIES. A building or part thereof housing persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment which provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff. This classification shall include, but not be limited to, the following: residential board and care facilities, assisted living facilities, halfway houses, group homes, congregate care facilities, social rehabilitation facilities, alcohol and drug abuse centers and convalescent facilities.
NFPA 101 – The *Life Safety Code®*

3.3.188.12* Residential Board and Care Occupancy. An occupancy used for lodging and boarding of four or more residents, not related by blood or marriage to the owners or operators, for the purpose of providing personal care services.

- Small facilities - residential board and care occupancies providing sleeping accommodations for not more than 16 residents.
- Large Facilities - sleeping accommodations for more than 16 residents
**Evacuation Capability** - The ability of occupants, residents, and staff as a group either to evacuate a building or to relocate from the point of occupancy to a point of safety.

**Point of Safety** – An area exterior to the building or one within the building meeting certain criteria for safe escape.

The LSC requirements are based upon the size of the facility and the evacuation capability!
3.3.76* Evacuation Capability. The ability of occupants, residents, and staff as a group either to evacuate a building or to relocate from the point of occupancy to a point of safety.

3.3.76.1 Impractical Evacuation Capability. The inability of a group to reliably move to a point of safety in a timely manner.

3.3.76.2 Prompt Evacuation Capability. The ability of a group to move reliably to a point of safety in a timely manner that is equivalent to the capacity of a household in the general population.

3.3.76.3 Slow Evacuation Capability. The ability of a group to move reliably to a point of safety in a timely manner, but not as rapidly as members of a household in the general population.
Understanding Requirements

- Minimum construction classification
- Means of egress
- Interior finish
- Detection, alarm and communication
- Extinguishment
- Construction of corridor walls
- Subdivision of building spaces
Understanding Requirements

- **Building services**
  - Utilities
  - Heating, ventilating and air-conditioning

- **Operating features**
  - Emergency Plan
  - Resident training
  - Emergency egress and relocation drill
  - Smoking
  - Furnishings, mattresses, and decorations
The basic type of construction is mandated by the applicable building and fire codes adopted in your jurisdiction.

Type I (fire resistive)  
Least combustible
Type II (non-combustible)
Type III (ordinary)
Type IV (heavy timber)
Type V (wood frame)  
Most combustible
Two Hour Horizontal Exit Separations

Safe Area of Refuge at Top of Stair

Corridor and room separations
Multiple Smoke Zones
What are hazardous areas?

Hazardous areas are defined by the Life Safety Code as the following areas:

• Boiler or fuel fired heater rooms
• Laundry facilities
• Paint or maintenance shops
• Soiled linen rooms
• Storage rooms greater than 100 square feet
• Trash collection rooms
Means of egress

Components
- Exit Access
- Exit
- Exit Discharge
An exit can be:

- Stair
- Level door to outside
- Door leading to a protected corridor
- Horizontal exit
Travel distances per NFPA 101

- **Travel within the room**
  - 75 feet without sprinklers
  - 125 feet with sprinklers

- **Travel from door to exit**
  - 100 feet without sprinklers
  - 200 feet with sprinklers

- **Common path of travel**
  - 110 feet without sprinklers
  - 160 feet with sprinklers

- **Dead-end corridor**
  - 50 feet
The exposed surfaces of walls, ceilings, and floors within buildings.
Smoke Detection – single station smoke detectors are key to residents life safety.

Manual Fire alarm stations –

Building Fire Alarm – General or Zoned Annunciation

Connected to off-site location -
Fire Extinguishment

- Automatic Sprinklers – much has been done over the past 30 years to enhance sprinkler performance.
- Fire pumps
- Standpipe hose connections
- Kitchen hood suppression systems
- Fire extinguishers
Operating Features

- Emergency Plan
- Resident training
- Emergency egress and relocation drill
- Smoking
- Furnishings, mattresses, and decorations
Know Your Evacuation Plan

- Know the exit routes
- Understand where your safe areas are located
- Keep exit routes clear of obstructions
  - Exit access corridors
  - Exit enclosures (stairs and fire rated corridors)
  - Exit discharge
- Communicate information among responding team！！！！!!
What do we do in the event of a fire?

**RACE**

**R** – **Rescue** the resident in immediate danger

**A** – **Alarm** - Sound the building fire alarm

**C** – **Contain** - Close the doors to other rooms as you remove the residents to the exit

**E** – **Evacuate** the residents to a safe area or to the exit
Who is coming to help?

- Every employee of ________________ is responsible to help in some way including:
  - Environmental Services
  - Maintenance
  - Culinary
  - Security
  - Nursing
  - Administration
- That includes all of us.
Fire prevention and protection

- Smoke and carbon monoxide alarms installed and operational
- Fire extinguishers properly placed and in service
- Fire suppression sprinkler system
- Fire escape plan posted at exit of each room
- Frequent fire evacuation drills
- Proximity to fire station
Operational considerations
Client evaluations for mobility
Fire drill requirements
  • Unannounced drill once each month
  • Written drill record
  • Residents must evacuate
  • One drill every six months during sleeping hours
What do we do?
- Follow RACE procedures
- Assist residents with evacuation to an exit or safe area
- Make sure all residents evacuate
- Maintain census of those on premise and those away
- Communicate! Communicate! Communicate!
  - Where is the fire
  - Is the egress blocked
  - Are all rooms evacuated

What about difficult residents?
Fire safety is a community commitment

The elderly present a greater risk

Knowing fire safety features of the facility helps us with Fire Emergency Planning

Fire drills are essential to safe egress

Knowing fire hazards improves our awareness

We can make a difference