TIME vs. PRODUCTS of COMBUSTION

**FLASHOVER**
No one survives flashover

- **30%** of smoke alarms didn’t work in homes that had fires*
- **25%** of fire deaths occurred in home fires in which smoke alarms sounded*

Without fire sprinklers, odds of escaping decrease significantly.

- **TIME VARIES**
- **TIME DIRECTLY MANAGEABLE BY FIRE DEPARTMENT**

**PRODUCTS OF COMBUSTION**
- **SMOKE ALARM ACTIVATES**
- **RESIDENTIAL SPRINKLER ACTIVATES**
- **COMMERCIAL SPRINKLER ACTIVATES**

**1) TEST SMOKE ALARMS**
**2) CONDUCT FIRE ESCAPE DRILLS**

*U.S. Experience With Smoke Alarms and Other Fire Alarms. NFPA. September 2001.

**NOTE:** See NFPA Fire Protection Handbook for time and temperature information.

**FIRE GROWTH UNRESTRICTED**

- **FIREFIGHTERS OPEN HOSE NOZZLES**

**FIRE GROWTH RESTRICTED**

- **FIRE GROWTH RESTRICTED**

**FIGHTING FIRE**

**0 1 2 3 4 5 6 7 8 9 10**
TIME (in minutes)
Based upon national averages