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Fire is Everyone's Fight™

Model Performance in Fire Prevention

SYMPOSIUM 2016

Smoke Alarm Installations: Windows of Opportunity and Lessons Learned from a Mostly Volunteer Combination Department

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GOALS AND OBJECTIVES

Goals

- Reduce the fire death rate to below national, state, and county levels
- Reduce the number of civilian fire-related injuries
- Maximize windows of opportunity to install smoke alarms and deliver a personalized safety message

Windows of Opportunity

- Post-fire neighborhood canvassing
- Fireplace inspection program
- Incidents
  - Smoke alarm kits carried on every apparatus

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FORMATIVE EVALUATION

Risk Assessment

- Sources
  - NFIRS reports
  - Non-emergency activity reports
  - Census data
  - Real estate assessment values

Risk Assessment

- 4 fire fatalities in the 10 years prior to implementing the smoke alarm program
  - No working smoke alarms in the fatal fires
- 30% of homes had no working smoke alarms
- 1/3 of the “working” smoke alarms were greater than 10 years old

Target Areas

- In 2 of the 5 municipal wards, 36% of the homes had no working smoke alarms
  - More densely populated
  - Lower income
  - Lower housing values
  - Older housing stock
  - Greater frequency of structure fires
  - Greater number of fire-related injuries
  - One had the highest % of people age 65 years and older
  - Other had the highest % of children under 5 years old

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PROCESS EVALUATION

Implementation

- 1,650 smoke alarm installs in 1,270 homes
- Annual community outreach training
  - Promote standard messaging
- Door to door canvassing
  - 27% more people at home during weekday evenings compared to weekends
  - 11% refuse during post-fire canvassing compared to 19% in general

Volunteer Participation

- Over 50% of the volunteer firefighters participated in canvassing
- Four times as many participated in post-fire vs. general canvassing

Volunteer Participation

- Declined in the second year
  - 33% decrease in the number of volunteer firefighters participating
  - 27% decrease in the number of canvassing events worked per volunteer firefighter
- Rebounding during the third year

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IMPACT EVALUATION

Working Smoke Alarms

- Community wide
  - Percentage of homes with a working smoke alarm increased from 70% to 81%
- Targeted wards
  - Percentage of homes with a working smoke alarm increased from 64% to 84%

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OUTCOME EVALUATION

Results

- 50% reduction in fire-related injuries
- 1 Structure Fire mitigated to the object of origin
- 2 Carbon Monoxide saves
- Great public relations

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RECOMMENDATIONS

Lessons Learned

- Install smoke alarms at all recommended locations
  - Only 34% of homes have working smoke alarms on all levels
  - Only 8% of homes have working smoke alarms in all bedrooms

Lessons Learned

- Must institutionalize canvassing as a department priority to sustain results and volunteer support
  - Need commitment of department leadership
  - Prevention staff can't do it alone
  - Important to accurately collect data to justify continuation of the program and motivate personnel through demonstrated results

Lessons Learned

- Maximize windows of opportunity
  - Post-fire canvassing
  - Weekday evenings
  - Fireplace inspections
  - Smoke alarm kits on apparatus

Lessons Learned

- Deliver a succinct personalized safety message during the home visit
  - Use a positive instructional message
  - Train personnel in standard messages

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RESOURCES

Canvassing Data Collection

- Address
- Not Home? (Y or N)
- Refused Service? (Y or N)
- Working smoke alarm outside sleeping area? (Y or N)
- Is smoke alarm greater than 10 years old? (Y or N)
- Working smoke alarms on all levels? (Y or N)
- Working smoke alarms in all bedrooms? (Y or N)
- Number of smoke alarms installed?
- Number of batteries installed?