# Working Smoke Alarms

## Executive Summary

This case study summarizes a presentation at the National Symposium on Model Performance in Fire Prevention in May 2012.

In response to the fire death of a University of Wisconsin student in a home without sufficient smoke alarms, the city of Madison (Wisconsin), passed a new smoke alarm ordinance, instituted fire education activities, and installed smoke alarms for high risk residents. Fire fatalities dropped from five per year before the smoke alarm program to a single fatality for the combined years 2008-2012.

## Overview

In 2007, Madison (Wisconsin) recorded five fire fatalities, with the last one occurring on December 30 of that year. The one everyone remembers, and for whom the city's smoke alarm ordinance is named, is 23-year-old Peter Talen, who died at 123 N. Bedford St. in the early morning hours of Sunday, November 18, 2007. All six of the house's smoke alarms were in good working order when students moved in during August. On the night Peter died, however, only one alarm in the basement was operable.

In March 2009, the City Council passed a new smoke alarm ordinance requiring smoke alarms:

- In each bedroom
- In each sleeping area
- Within six feet of each door leading to a bedroom or sleeping area of each unit
- On each floor of the building

The smoke alarm ordinance also requires:

- Hardwired smoke alarms w/battery backup **OR**
- Smoke alarms powered by a 10-year lithium battery in a tamper-resistant compartment.
- Unless otherwise specified by the manufacturer, **no smoke alarm shall remain in service longer than ten years.**

## Formative Evaluation (qualitative or quantitative risk assessment)

Homes without operating smoke alarms place residents at a higher risk of fire death.

- The public/private Fire Safety Council reports that during the period of 1999-2001, 70% of fire deaths occurred in homes without working smoke alarms

- Madison is the state capitol and home to University of Wisconsin-Madison
- The city has a population of 233,209, with a student population of 42,000+.
- The level of renter-occupied housing (52%) exceeds the national average (34%)

## Process Evaluation (analysis of the program's development and early implementation)

Passage of the ordinance was the springboard for heavy media and education activity

- The Fire Department's Community Education Unit developed new materials for distribution and on the MFD website
- Presentations outlining the ordinances were prepared and delivered to retailers and property owners
- Additional educational materials included:
    - Signage on Department vehicles
    - T-shirts specific to the cause!
- Media activity created widespread awareness of the ordinance
- The Community Education Unit also concentrated efforts on reaching out to high-risk populations (e.g. older adults, families with young children, and people with disabilities) through a series of presentations and attendance at health and safety events
- The Madison Fire Department fielded hundreds of calls regarding the new ordinance
- Community Education Unit spent months on planning and coordination:
    - Contacting partner agencies to get referrals for installations
    - Contacting and scheduling recipients
    - Negotiating with Fire Fighters Local 311 to allow for on-duty installation
    - Preparing training and evaluation for installations
- Installations were performed over a 3-year period

## Impact Evaluation (identification of measurable changes that are cognitive gains or behavior changes that reduced risk)

Significantly greater awareness of the need to replace smoke alarms after 10 years.

## Outcome Evaluation (longer term documentation that supports reduction of injury, death or economic losses)

Madison recorded a single fire fatality from 2008-2012, compared to five fire fatalities in 2007.

## Recommendations for Others

- Get buy-in from potential opponents
- Talk to the experts
- Messaging – repeat, repeat, repeat, and never deviate
- Stay focused on your message and your mission
- Prepare – With ordinance passage uncertain, we delayed preparing educational materials when the effort may have been unnecessary. Any pre-approval work would have been well worth the effort. Information for the community and property owners must be available immediately after the ordinance adoption.
- Partner with everyone you can to build consensus and buy-in. BUT
- New ordinance language can change the community conversation and with it, the culture and behavior that makes a difference

## For More Information

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To see an expanded version of this case study that was presented at the 2012 National Symposium on Model Performance in Fire Prevention hosted by Vision 2020, click http://strategicfire.org/page.cfm/go/2012-Model-Performance.