

The Vision 20/20 Project

Sample Submittals for the 2016 Model Performance in Community Risk Reduction Symposium

These are successful submittals from the 2016 Model Performance in Community Risk Reduction Symposium that you can use as examples when preparing your submittal for the 2018 Symposium.

Name of the program

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

Executive Summary

A smoke alarm installation program utilizing extensive volunteer support was implemented to significantly reduce the percentage of homes without working smoke alarms below the current 30% level. Smoke alarms were installed through door-to-door canvassing, upon conclusion of an incident, or during any non-emergency activity. No home visited or responded to is left without a working smoke alarm.

Particularly effective windows of opportunity included canvassing neighborhoods where fires occurred, and a fireplace inspection service offered by the fire department and heavily requested by residents. These yielded especially receptive residents due to the recent nearby fire, or they specifically requested the fire department inspection service. Lessons learned include identifying the best times and methods to maximize outreach, program effectiveness, and volunteer participation.

Overview

██████████ has a population of 33,137 in 6 square miles, giving the community an urban population density. Over 85% of the residential structures are greater than 50 years old. ██████████ Fire Department is comprised of 17 career and 40 volunteer firefighters.

Throughout the community, 30% of homes do not have a working smoke alarm. In two of the five municipal wards, the percentage is 36%. To address this, the department's smoke alarm program was greatly expanded. Smoke alarms are installed through door-to-door canvassing in the two highest risk wards, and in the immediate neighborhood of every significant fire. Smoke alarms are also checked on every incident and non-emergency activity throughout the community, and installed where needed.

The target audience for the smoke alarm program is the entire community, with a focus on the two highest risk wards. The measurable outcome goals for the project are a reduction of ██████████ fire death rate to below the national average, and a reduction in the number of civilian fire-related injuries annually.

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Formative Evaluation

Five years of incident response data, along with two years of non-emergency data from smoke detector checks and home inspection requests, were reviewed to determine the percentage of homes without a working smoke alarm. The data was further broken down by municipal ward, and coupled with an analysis of census data, fire loss data, and civilian fire casualty data.

This initial risk assessment showed the percentage of homes without a working smoke alarm to be greater than the national average, with two municipal wards being the most significant contributors. These two wards are the more densely populated and lower income areas of the municipality, having lower housing values, older housing stock, greater frequency of structure fires, and a greater number of fire-related civilian injuries. In addition, one of these wards has the highest percentage of individuals age 65 years and older, and the other has the highest percentage of children under 5 years old.

Process Evaluation

The following data is tracked: fire loss and casualties, canvassing (reached, not home, refused entry), number of smoke alarms installed by outreach method or during incidents, presence of working smoke alarms by location, and volunteer participation.

Canvassing events during weekday evenings reached 27% more people at-home, compared to weekends. Canvassing events after a fire found 42% less homes refused entry, compared to general canvassing.

Four times as many volunteers participated in canvassing after a fire, compared to general canvassing. Volunteer participation declined following the initial year of the program, with 33% less volunteer firefighters participating, and the number of events worked per firefighter dropping 27%.

Impact Evaluation

We find that 30% of homes do not have a working smoke alarm. In the targeted wards, the percentage is 36%. Additionally, 33% of the working smoke detectors need replaced because they are greater than 10 years old. These percentages were reduced by 60-70% through installations in the canvassed neighborhoods, limited only by the number of residents not home or refusing entry. Funding provided 1,650 smoke alarms for installation, along with hearing impaired equipment.

Only 34% of homes have working smoke alarms on all levels, and 8% have working smoke alarms in all bedrooms.

Outcome Evaluation

Since smoke alarm canvassing efforts began, there has been a 50% reduction in fire-related injuries. There have also been two incidents where carbon monoxide detectors, installed following fire department recommendations during home visits, alerted occupants to life threatening levels. Additionally, one structure fire occurred in a residence where smoke alarms were installed just five days prior during a canvassing event. A neighbor heard the smoke alarm, and reported smoke coming from the structure. The fire damage was less than \$100.

Lastly, the smoke alarm campaign builds public relations. The fire department regularly receives thank you letters and donations as a result of the program.

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Recommendations for Others

Based on the low percentages of homes with working smoke detectors on all levels and in each bedroom, it is recommended that sufficient funding be secured to allow smoke alarm installations in all of these recommended locations.

A smoke alarm canvassing program must be a department priority, with the commitment of the Fire Chief and department leadership, in order to sustain volunteer support. It would be difficult to do the program with prevention staff alone. Further, the department must institutionalize canvassing efforts for long term success. Otherwise, the problem will re-emerge as installed detectors reach the end of their service life.

People are more attentive to a personalized safety message, based on what appears applicable at each home visit (smoking, candles, older adults, carbon monoxide detectors, escape planning, etc.), than generic messages. Due to varied experience levels and prevention knowledge, staff need to be trained to deliver consistent messages.

Smoke alarms and installation kits should be placed on each apparatus, so smoke alarms can be installed where needed before clearing an incident. In-demand community outreach services, such as fireplace inspections, are also great opportunities to install smoke alarms. Investigate what may work in your area. Canvassing following a fire is a very effective window of opportunity and yields the most volunteer support. Weekday evenings are the best time for canvassing.

Tangible materials

A comprehensive summary of smoke alarm program data will be prepared for others to use as a starting point, or model to develop and evaluate their programs using similarly collected local data.

Was this a DHS funded project?

Yes

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Name of the program

Fire Data in a Serious State

Executive Summary

“Check the data.” “There isn’t usable data.”

In late 2013, the ██████ NFIRS state program was near collapse with two-thirds of departments not reporting any incidents. Hiring a full-time State NFIRS Program Manager, keeping constant contact, providing numerous classes, and utilizing data at every possible opportunity in every possible partner agency has increased reporting to 83% today. The process of collecting useful data also created a culture of curiosity about data-driven decisions in protecting communities while helping fire departments apply resources and advocate for equipment. This was done without changing requirements or purchasing a statewide vendor.

██████ got serious about improving data.

Overview

State Fire Marshal Offices and fire departments with data quality/culture concerns who want to increase reporting from departments, lesson complaints about reporting, improve quality of reporting, increase use of data in-house, and increase publications, articles, and presentations quoting NFIRS statistics.

Formative Evaluation

The fire department database was almost 10 years old and current fire chief information was unknown. Updating the list and contact information was the top priority.

Many departments lacked software resources to complete reports due to budget restrictions. These departments were hit hardest since NFIRS compliance is required to receive equipment/apparatus from the ██████ Forest Service. The same departments would not apply for AFG grants, knowing they were not reporting. Departments were not working towards reporting even after being denied badly needed equipment. This was unnecessary since there is free software available.

“NFIRS” was a four-letter word that would spark debate and anger. Accessible training was lacking and personnel did not like current reference materials. Questions went unanswered with a part-time State PM and personnel would “just get it to validate” by whatever means necessary. The data was considered to be useless, somewhere “in a black hole.”

Nobody had any real idea of the fire problem in ██████ or call loads/equipment needs for fire departments. We could not release an annual report due to lack of credible data. Requests for statistics had stopped coming into our Office.

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Process Evaluation

County Emergency Managers helped update fire department information. Chiefs who were unaware their departments were not submitting simply because they had not been contacted before. All chiefs began receiving monthly reporting updates via email, until an online reporting status tool was implemented using Tableau for free. Departments and the public can now check the reporting of all departments in [REDACTED] for 3 years. Firehouse departments believed they were submitting because Firehouse stated "Export complete". Departments were provided an export SOP which included the correct email. Now, all departments utilizing third-party vendors know they should receive a response to their emails confirming receipt and any validation errors. The error information has encouraged corrections.

Departments without reporting software were provided the Federal Client Tool and training on-site. The State PM would use the department's own reports, entering them during the class. Once the department was caught up, the [REDACTED] Forest Service was notified of compliance, providing an immediate win for the department in the form of needed trucks or equipment.

Reporting classes were reduced from 8 to 2 hours and offered during evenings and Saturdays. Given the 84% volunteer rate in [REDACTED], more people were able to attend training. The class also focused on providing "why" behind fields and how data fights fires behind the scenes. Complaints of the "3 inch thick NFIRS manual" were solved by creating one-page guides for common call types. Additional cheat sheets were created with department input. Monthly webcasts were added, reducing travel costs. By providing software resources, training, and better reference materials, personnel had fewer complaints about completing reports. Personnel using the materials report that completing NFIRS requires far less time.

With better reports, publications were released and departments began to see their numbers "doing things" in the world. Articles, annual reports, and year-end infographics were released showing stats across the state. The State PM also provides any analysis a department requests, including providing every department the necessary stats for AFG applications. Complaints of a "black hole for data" disappeared.

Impact Evaluation

In October 2013, only 31% of departments had reported at least once in 2013. Reports from 2013 increased to 77% by late 2014. 2014 closed out the year with 83% reporting and 63% reporting everything, instead of gaming the system reporting once a year. Between 20-25 well attended on-site classes were provided yearly. Invalid reports have dropped more than 3x to 0.2% of total reports (less than _ of a percent).

Outcome Evaluation

Requests for statistics come in weekly, and sometimes daily depending on the time of year. In 2015, there have been 42 data requests from non-fire department entities. Departments continue to request year-end infographics including 19 tiny departments that previously hadn't reported for 10+ years and are now data-driven. Roughly 200-300 emails and dozens of phone calls are received by the State PM each month discussing NFIRS reporting questions, data applications, and improvement. NFIRS has become a partner for many state agencies seeking to help the Fire Service, including a grass fire study. There are 31 departments waiting to host the new NFIRS Ops class on data analysis which was rolled out late 2014.

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Recommendations for Others

Encourage every State to make NFIRS a priority by having a dedicated State NFIRS Program Manager who can stay in constant contact with departments and provide resources. Provide the State PM with training, especially technology and Microsoft Office. Provide the PM with resources necessary to support the program and network with other PMs to improve and reduce workloads. Show respect for the time people spend completing NFIRS reports by providing reference materials with training and utilizing the data whenever possible.

Tangible materials

Reference guides, cheat sheets, Firehouse export SOP, list of free online tools with uses

Was this a DHS funded project?

No

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Name of the program

“Senior Outreach – The Power of Partnerships”

Executive Summary

Older adults represent one of the highest fire risk populations in the United States. As a result of progressive degeneration in physical, cognitive, and emotional capabilities, older adults present unique challenges in the fields of injury and fire protection, prevention and safety. Complications associated with aging increase the potential that an elderly person will unintentionally start a fire and at the same time reduce his or her chances of surviving it.

As the nation's elderly population grows, the fire death toll will likely rise in direct proportion to that growth unless measures are taken to address the risks associated with this group. A large concentration of ██████████ County's senior citizens are choosing to “age in place” and remain in older neighborhoods.

To assure the safety of these senior citizens, sufficient education and risk prevention resources need to be available. ██████████ CFRS has developed a number of successful risk reduction programs targeting seniors and their special needs. These educational programs are also coordinated with agencies that work with seniors and include Meals on Wheels, American Red Cross, the Commission on Aging and through programs at many faith-based organizations and other community gathering places.

An eyes-wide-open approach to the future would best prepare the County for what lies ahead and for continuing to make ██████████ County a community for a lifetime. The time is now to implement and continue these invaluable programs for today's seniors.

Like nearly every other fire department in the country, we are challenged with very limited funding and the critical importance of providing the highest quality emergency services for our residents and visitors. The Senior Outreach and Education Program for the ██████████ County Fire and Rescue Service has been successful in providing home safety checks and smoke alarms senior citizens that have otherwise been unreachable in previous efforts. Through CY2015 this program worked with 52 community-based organizations to provide a means of “getting our foot in the door” of these most vulnerable members of our population.

Overview

The target audience for this presentation should include:

- Fire Departments and other first responder organizations
- American Red Cross Disaster Specialists
- Representatives of community organizations and local governmental agencies that have direct contact with clients that represent seniors living independently.

The measurable objectives should include:

- Development of list of organizations to consider pairing with and what each bring to the table.

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- Finally, at no cost or work effort to the resident, █CFRS will send a copy of the checklist to a relative, friend, or other relation of the homeowner's choosing. The checklist asks the recipient to have follow-up discussions with the homeowner about the findings of the home safety check. The checklist also provides contact information for the recipient to contact █CFRS if they wish to have a home safety check for themselves.

During a two-day program (10/31/2014 and 11/14/2014) coordinated with the █ Neighbors Assisting Neighbors Village in █, █CFRS Senior Outreach Safety Experts went to 45 homes. 23 of the 45 homes (51%) that we visited had no working smoke alarms when we arrived. 44 of the 45 homes (98%) required some level of fire safety intervention (e.g. installing or replacing at least one smoke alarm, battery, etc.) We installed 76 long-life smoke alarms, twenty 9-volt batteries (for battery back-up of hard-wired smoke alarms), and we provided 47 Files of Life. Of the 76 smoke alarms, 56 were supplied by █CFRS and 20 were purchased by the homeowners. (Source: █). Entry into these homes would likely not have been possible without the partnership between the neighborhood "Village" and the █CFRS.

Building on the concept of partnerships a similar program was held in early November 2014, this in another portion of █ County and this time through a partnership with Meals on Wheels of █, one of the eleven Meals on Wheels programs serving the residents of █ County. The results of this three-day program provided additional information that was equally as disturbing. In total, we went to 18 homes and checked 34 smoke alarms. This portion of the County generally has newer construction, and as a result, there were a higher number of homes with hard-wired smoke alarms. While there, the teams installed 23 long-life smoke alarms and replaced 17 batteries. They also provided disaster preparedness information and Files of Life for these vulnerable residents and their family members.

The cases made by these two examples of cooperative programs illustrate the incredible value of having the fire service enter into partnerships with organizations that already have a trusted relationship with seniors and other vulnerable individuals who are living independently in the community. █CFRS Senior Outreach has so far paired up with the following community organizations to provide home safety checks:

- 11 Senior "Villages"
- 10 Meals on Wheels programs
- 13 Faith-based Organizations
- 10 Senior Centers (through the County's Department of Recreation)
- 8 Clubs or other organizations

Process Evaluation

Throughout a 12-month period from October 2014, the Senior Outreach and Education Program provided 61 group educational programs providing face-to-face education to 2150 County residents (average 35.2 attendees per event) and conducted 815 home safety checks, installing 1024 smoke alarms and replacing 618 batteries in the process (1.26 smoke alarms per home and 0.76 batteries per home).

Impact Evaluation

Safe and secure local communities are vital to the long-term well-being of the seniors in the community. Using a "Train the trainer" model with each of our partner organizations has resulted in increased awareness and critical knowledge of injury prevention and fire safety awareness at many levels and the impact of this approach is resulting in lives saved.

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Outcome Evaluation

In the 12 months since this program started, there have been no residential fire fatalities of seniors in ██████████ County. While we understand that this negative outcome cannot be directly attributed to the Senior Outreach and education efforts, it nonetheless can be due in some part to the Senior Outreach efforts as part of a comprehensive effort including Fire Code Compliance and Enforcement, promulgation of residential fire sprinkler systems in all types of new housing, increased incentives and efforts for others to retrofit their homes with residential sprinklers, and other efforts. Follow-up surveys with those residents that have attended group presentations and those that have had home safety checks are scheduled to be conducted in the next year.

Recommendations for Others

You must use an offensive strategy to attack the issue of senior outreach and education in your community. Don't wait for them to come to you asking for help. Seek out groups and organizations that provide any type of service for seniors living at home. "Sell" the concept of fire safety and injury prevention and the services that your department is able to provide for them.

Tangible materials

- Format of the on-line data entry form
- On-line App to request Home Safety and Smoke Alarm Check-up
- Home Safety Checklist

(Please note: Yes, several elements of the project were funded through a two consecutive DHS/FEMA Assistance to Firefighter Grants).

Was this a DHS funded project?

Yes