Fire Department Home Safety Visits

WASHINGTON STATE FIRE MARSHALS

IN PARTNERSHIP WITH INSTITUTION OF FIRE ENGINEERS Vision 20/20

A HOW-TO GUIDE

Home safety visits are a proven way to reduce fire injuries and deaths. This How-To Guide details all the steps of planning and implementing a home safety visit program for your community. It can be followed step-by-step or you can go to particular topics using the navigation. The information, advice and education you provide on a home safety visit, as well as the alarms that you install, will save lives and make your community members more secure. Please send us your comments and suggestions using the comment form at the end.

> ***Watch our short video on how your fire department can use home safety visits to reach and help high-risk residents in your community.***

The Washington State Association of Fire Marshals (WSAFM) gratefully acknowledges the contributions of progressive fire and life safety

advocates from throughout the state who have been partnering with WSAFM on home safety visits since 2008. This guide was developed in partnership with Vision 20/20.

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INTRODUCTION

Based on national analyses of home fire deaths, we can predict who is most likely to die in a home fire. They are often people who:

- smoke
- live in poverty
- are very old or very young
- do not have a high school education
- are black or native American
- live in the urban core or in very rural areas

You and your fire department cannot solve the many social problems that contribute to high fire death risk; but you can lower the risk of home fire deaths by doing what you do best: helping people with simple actions that save lives. This includes installing smoke alarms and alert equipment and helping families understand the need to keep them working and to create and practice an escape plan so they will know what to do if those alarms sound.

> *In every service area, firefighters can make a big difference with a home visit program. When you respond to a 9-1-1 call, the people waiting for you in front of their home will be safe outside because of you.*

According to the National Fire Protection Association (NFPA), U.S. fire departments responded to an average of 366,600 residential structure fires per year from 2007–2011.[1] These fires resulted in an estimated 2,570 civilian fire fatalities, 13,210 civilian injuries, and $7.2 billion in direct property damage per year. CPSC estimated that over 96 percent of residential fires are not reported to fire departments.[2]

Most people believe a fire is not something that will happen to them and their loved ones. But NFPA estimates that, including unreported fires, a household will experience five fires over an average lifetime.[1]

While 96-97 percent of U.S. households have at least one smoke alarm, smoke alarms operated in just half (52 percent) of reported home fires and were present in only three-quarters (73 percent).[3] It's important for every household to have working smoke alarms to give early warning should a fire occur. Having working smoke alarms cuts the risk of dying in a fire nearly in half!

Smoke alarms that are properly installed and maintained play a vital role in reducing death, injuries, and property damage in home fires.

A fundamental mission of the fire department has always been fire suppression and rescue. Today many progressive fire departments are adopting a more comprehensive approach known as Community Risk Reduction, or CRR. CRR is a process to identify local risks, followed by the coordinated and strategic investment of resources to reduce their occurrence and impact. Installation of smoke alarms in high-risk homes through home safety visits is a strategy central to Community Risk Reduction, as is the education of area residents in the prevention of fires and other injuries. Home safety visits play a powerful role in enhanced public safety. Benefits to adopting this proven strategy include an immediate positive impact on the life safety of residents in the community, firefighter safety, and building community equity.

With funding from the U.S. Department of Homeland Security/FEMA, the Vision 20/20 project has worked with the Washington State Association of Fire Marshals to pilot test home safety visit programs as part of a Community Risk Reduction strategy. Since 2009, more than 25 communities large and small across the nation have used a variety of home visit approaches. This "how-to guide" presents proven options from Washington State and elsewhere to help you, your fellow firefighters, your department and your community partners get into as many homes as possible to conduct home safety visits and install smoke alarms when needed.

Watch this clip about the Philadelphia, PA Fire Department's home safety visit program with former Commissioner Lloyd Ayers (retired).

Here is a list of some U.S. fire departments that are doing or have done home fire safety visits:

Alexandria, VA
Bellevue, WA
Chelan District 5, WA
Chelan District 7, WA
Cleveland, OH
Dallas, TX
East Pierce County, WA
Gwinnett County Fire and Emergency Services, GA
Kitsap County, WA (six jurisdictions)
Lake Stevens, WA
Lexington, KY
Madison, WI
Palm Beach County, FL
Philadelphia, PA
Redmond, WA
Rosemont, MN
Spring Lake Park-Blaine-Mounds View Fire Department, MN
Snohomish County, WA Fire District 1
Spokane, WA
Tualatin Valley Fire and Rescue, OR
Tucson, AZ
Vancouver, WA
Washington, DC
West Pierce County, WA
Williamsburg, KY
Wilmington, NC

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LAYING THE GROUNDWORK

Key Program Decisions to Make First

One of the most important rules in construction is "measure twice, cut once." The first step to a successful home visit program is careful and collaborative planning. Assemble the team you will need to execute and sustain the program over time. Include key players from within the fire department, representatives from the neighborhoods and groups at highest risk, other community partners who can assist you, and important stakeholders such as members of the media and key funding partners. Work together on a written action plan that addresses the following questions:

- What is the goal of your home safety visit program?
- In what areas of the community will you focus initially and how will you select them? *(Note: This is an opportunity to engage field operations personnel, particularly company officers, in identifying the neighborhoods in their response areas with the most fire/EMS calls.)*
- Who will make up the home visit teams, and what roles will they play?
- What community partners will you recruit to help and what roles will they play?
- Will you require residents to sign waiver forms for both the home survey and for the smoke alarm installation?
- What type of smoke alarms will you install? If applicable, what type of carbon monoxide (CO) alarms?
- Will you install alert devices for people who are hard of hearing?
- Will you install enough alarms in each home visited to meet code?
- What safety topics will you cover during the visit?
- Approximately how long will each visit last?
- How will you promote your program?
- What procedures will be used to schedule appointments?
- How will you handle needed follow-up and troubleshooting?
- What training will you provide the home visit teams?
- How will you ensure the safety of your home visit teams (e.g., good identification, reporting to dispatch when your teams arrive and leave the premises, etc.)
- What metrics will you use to evaluate your impact?

Note: In any community-based outreach program that showcases firefighters and partners as champions of public safety, it is important to lead by example. Don't assume all members of your team, even those within the fire department, have working smoke alarms in their own homes. Encourage everyone on your home visit team to test and replace smoke alarms and batteries and to practice a home fire drill with their own loved ones BEFORE they start encouraging others in the community to do so. It's a great way to practice and your program representatives will be ready to answer truthfully when someone they visit asks if they have working smoke alarms where they live.

You can jump to the section on Organizing Your Program.

A Note About Alarms

Selecting smoke alarms and alert equipment is a local community choice. In general, WSAFM and Vision 20/20, the U.S. Fire Administration and the U.S. Department of Homeland Security/FEMA, along with many other national fire organizations, recommend use of long-life, tamper-resistant alarms for most home safety visit programs that focus on installation in high-risk homes. This increases the likelihood the homes you visit will remain protected for at least several years. Best practice also dictates that for the best protection dual sensor alarms or a combination of some photoelectric and some ionization alarms should be installed in each home.

Vision 20/20 recommends following the code requirements outlined in NFPA® 72, National Fire Alarm and Signaling Code, and placing enough alarms in each home visited to provide an adequate level of protection. This includes smoke alarms on every level of the home, in each bedroom and outside each sleeping area.

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LAYING THE GROUNDWORK

Where to Begin

Whether you are an inspector, firefighter, instructor or fire and life safety educator, you know the important role the fire chief plays in setting priorities and deciding what services your department provides. As you begin a home safety visit program, make sure you have the support needed. This includes the buy-in of the fire chief and other administrative leaders, along with elected officials (e.g., mayor, city or town manager, city council, etc.). If the program is important to them, then their support and enthusiasm will impact the ranks, from the department heads to the firefighters, the volunteers, and the department's support staff.

One way to sustain top-level support is to involve the chief and other leaders early on. Present a solid case for investing in Community Risk Reduction efforts in general and to support the strategy of home safety visits as a proven public safety approach. Invite them to participate in media opportunities when you announce and promote the home visits. Some fire departments have included elected officials in the first home safety visit, increasing media interest and rewarding their support with favorable publicity. For help in "selling prevention" to members of your department and other opinion leaders in your community, read the section on creating demand for prevention in Vision 20/20's Advocacy Toolkit.

The ability to measure and report on the success and challenges of the program will be important to your chief and other officials. Comprehensive evaluation will strengthen your program and is a vital element to securing continued funding. Therefore, clearly set your goals in the beginning by determining what you want to accomplish and how you will gauge the results. You may choose to make home visits to a small number of high-risk homes and publicize them, with the hope of getting more internal and external support to expand the program. Or visit all of the high-risk homes in the community, perhaps over a year, with a goal of visiting all homes in the community, perhaps over five years. You will want to set goals about attracting other community organizations to assist in these efforts, and goals for getting line firefighters more involved in prevention. Determine what you want to accomplish and how you will gauge the results. The section on Evaluation discusses how. A great planning resource to review is NFPA's Public Fire Education Planning for Urban Communities: A Five-Step Process Guide to Success.

1.
Identify risks
Form a planning team
Conduct community risk assessment for home safety visits
Secure organizational buy-in
Develop internal and external partnerships
Identify resources (needed and available)
2.
Prioritize risks and create strategies
Determine which risks will be addressed during home safety visits
Create a strategy to address top risks during visits
Make a decision to produce or to purchase materials that address the risks
3.
Implement your home safety visit program
Establish responsibilities and timetable
Market the program to the community
Start program home visits and activities
Monitor and report progress
4.
Evaluate and monitor
Identify data to be collected
Collect program data
Compare data
Modify the program where needed
Report program results to stakeholders

Note – the planning cycle is continuous and modified as monitoring and evaluation indicate changes that should be made.

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IDENTIFYING HIGH-RISK AREAS FOR HOME VISITS

Where should a fire department begin its home safety program? The most logical answer is where the need is greatest — in homes where the risk of dying in a fire is greatest. These might be identified by fire incidence of particular homes, geography, characteristics of residents (older adults, people with disabilities, low income levels, etc.), or by types of homes (e.g. manufactured homes).

Possible Sources:

Emergency response data: Use your department's database to review home fire incidents, injuries and deaths over the past five years so you can determine areas with higher fire call incidence. This data will help justify where your program begins and where to focus efforts so it will be most effective in the shortest time – with a goal of reaching out to every home over time.

If available, consider utilizing a geographical information system (GIS) or other mapping software, such as Google Maps, to plot three to five years of incident data on a map. This information will give you a visual perspective of where to initially concentrate your efforts.

Neighborhoods with recent house fires: You may not need to look back as far as five years to choose where to begin. Many departments initiate home visits in areas that have experienced recent fires. This not only addresses higher fire risk; it also capitalizes on interest and attention to the problem of fire by the people who live in that neighborhood.

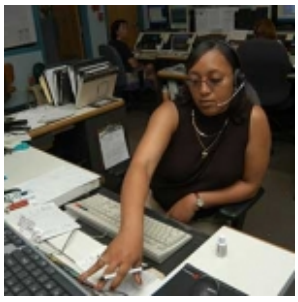

Photo by Mark Wolfe/FEMA News photo

Demographics

Higher fire death rates are seen in states with larger percentages of people who are black, poor, smokers, have less formal education, and who live in rural areas. Many factors associated with higher fire death rates are correlated with each other. They are not mutually exclusive.[4]

You might use census data to target areas with households that have certain demographic characteristics that are associated with high fire risk, such as age, ethnicity, income level, employment status, home ownership, and type of home. You can use the U.S. Census Bureau's American Fact Finder site to find population and other facts about your community. The site will provide you with a simple view of the demographics of any given community – by census tract. You can use the tool to help you understand "who" you need to reach if you intend to do anything proactive within your community about preventing safety incidents or mitigating their impacts. There is also commercial software available that identifies specific households that reflect the key areas of focus. Vision 20/20 has created model forms for data collection.

About these factors:

1. Income level: Factors may include living in homes with older electrical systems and appliances, single-parent households, the lack of working smoke alarms, poorly maintained buildings, overcrowding, lack of egress, alternative heating and less exposure to fire safety information.

2. Adults who do not have a high school education: The U.S. Census Bureau collects this data and its definition refers to people 25 or older who lack 12 years of education.

3. People who smoke: Smoking and smoking materials are among the leading cause of home fire deaths. People who smoke and their families are at a higher risk for home fire deaths.

4. Older adults aged 65 years and older are the fastest growing segment of America. Risk increases with age. Older adults aged 75 or over are nearly three times as likely to die in a fire as the general public. That risk is further increased for adults 85 and over.[5]

Some of the reasons[6] why some older adults are at greater fire risk include:

- Living alone, which can make escaping from a fire difficult with no one to offer assistance.
- Hearing, mobility, or vision impairments that can contribute to the inability to react quickly to prevent a fire, be alerted to a fire, or to escape a fire.
- Medications and alcohol, which may cause drowsiness, difficulty waking, and the inability to react quickly.
- A decreased ability to smell that gas is leaking or that something is burning.
- Memory lapses and problems focusing, and the ease of being distracted can contribute to accidental fire (i.e. leaving cooking unattended).
- Living in substandard housing that may lack central heating (making the use of space heaters or alternative heating necessary), and that may have old gas stoves or old electrical wiring that are more likely to malfunction.
- A lack of secondary exits or an inability to use them (such as escape through a window).

5. Children five or younger are also at higher risk of dying in a fire. There are several reasons:

- Children left alone or unattended
- Experimenting with matches or lighters and starting a fire
- Not understanding fire danger and what to do if fire occurs
- Dependence on others to detect a fire and help them escape from it

6. Ethnicity and Culture: Research on fire deaths by ethnic group shows that some groups have higher risk than others. Multiple studies have found that people who are African American and who are Native American have a higher home fire death rate than all races and ethnicities combined.[7]

Ethnic groups or communities with higher risk are those in which:

- there are certain cultural practices, such as frequent lit-candle use, which increase risk.
- residents are likely to be unfamiliar with the proper use of modern appliances, such as heating and cooking equipment.
- residents are likely to have had less exposure to fire safety education.

- residents are unfamiliar with English and cannot understand the fire safety education that has been provided.

It is important to identify the ethnic groups or communities that you want to reach, and then tailor your program to meet their unique needs. Programs are seldom successful without including representatives from the community of focus in the planning and delivery. Be prepared with information in the language of the high-risk group.

NFPA and USFA have fire safety and smoke alarm tip sheets in several different languages. ProLiteracy offers home fire safety information written in plain English and translated into Spanish.

Greg Henshall / FEMA

Many communities, especially immigrant communities, may be wary of people coming to their door, even firefighters. One way past this barrier is to visit the home with a firefighter or community member of the same ethnic group. See the section on Partnerships for additional methods.

With support from Vision 20/20 and the Washington State Association of Fire Marshals, ProLiteracy has created guidance and tools to use with residents who may not read well or do not yet understand English well.

Tip Sheet (how to use the illustrations)

Smoke Alarm Illustrations (color)

Smoke Alarm Illustrations (grayscale)

Smoke Alarm Illustrations (black-and-white line drawings)

ProLiteracy offers additional home fire safety information written in plain English and translated into Spanish.

7. Type of Dwellings:

Photo credit: U.S. Fire Administration

- **One- and Two-Family Dwellings:** Although all homes are important, you may want to focus your efforts on one- and two-family homes (including manufactured homes and duplexes) as the first stage of your home safety program. A 2013 NFPA study reported that 71 percent of residential fires occurred in one- or two-family homes, including manufactured homes[1].
- **Manufactured Homes:** Manufactured homes built prior to 1976 Housing and Urban Development (HUD) construction standards have a much higher risk of fire deaths than those built post-1976, according to the NFPA. The latest NFPA data (2007-2011) show that the overall fire death rate per 100,000 units is roughly the same for manufactured homes as it is for single- or dual-family homes. With this in mind, concentrate your home safety program first on those manufactured homes built prior to 1976.
- **Older homes and buildings:** Age does not necessarily equal a fire hazard. However, a home's age can correlate to an increase of fire risk from system malfunctions, or deferred maintenance and upkeep. Electrical distribution or lighting equipment is a leading cause of home fires. In older homes and buildings, electrical fires are often due to outdated or faulty wiring, and wiring that was not designed to handle the electrical loads commonly used by households today.[8] Old houses have fewer receptacles, which increases the risk of overloading a circuit from the misuse of extension cords. A study conducted by the U.S. Consumer Product Safety Commission (CPSC) in the 1980s indicated that the frequency of fires in residential electrical systems was disproportionately high in homes more than 40 years old. Although several factors could be attributed to this high incidence of fire in the electrical systems of older homes, the aging of older electrical systems and the fact that older homes were not built to the more rigid building codes of recent times were deemed the most likely contributing factors.
- **Rental Properties:** In most jurisdictions, the landlord is required by law to provide smoke alarm protection for residents. For this reason, some fire departments choose to exclude rental properties from their home safety visit programs. Others, such as in Gwinnett County, Georgia, are concerned that excluding rental properties will leave many of the homes at highest risk in their community unprotected. Gwinnett County Fire & Emergency Services will install alarms in one- and two-family homes where needed, even if they're rental properties. In apartment complexes, the fire department conducts annual inspections to educate the building management and encourage code compliance with all elements of the fire and life safety codes. Bottom line: This is a local decision

that should take into account local code requirements, legal considerations, and risk assessment data indicating where the need is greatest. According to the Fair Housing Act, people with disabilities have the right to modify their homes to include installing smoke alarms and alert equipment. Landlords cannot prevent the installation.[9]

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GAINING TRUST AND ACCESS

A successful home visit program will be well publicized and use effective methods to gain the confidence of residents and facilitate access into their homes. Fire departments that have had success with home visit programs have made communication and partnerships a priority. You can model your program on some of these. Utilize these best practices when developing your program.

SBM Fire Department

Communication

Getting the Word Out

Publicize your department's home visit plan in advance. Communicate about the dangers of home fires and how these visits can help protect families in the areas where you are implementing the program.

Get buy-in for the home visits from influential members of the community. These may include religious leaders, social service agencies, organizations and local officials. Their endorsement of the home visits will contribute to your ability to be invited into homes.

Neighborhood Outreach

Many fire departments have found door-to-door canvassing effective. Sometimes called "sweeps," these often involve unscheduled visits in which home visit teams knock on doors in designated areas, with the fire truck parked in a visible location, and ask for permission to enter the home to install smoke alarms and educate residents about fire safety. These activities should be well publicized in advance through the media and signage, and possibly through notification in person by community partners who visit the area to let residents know the event will be taking place. When performing a "blitz-style" canvassing event, offer to return to the home at a scheduled time to conduct a more thorough home survey.

Create information packets about your program and distribute them before the canvass. The information packets should clearly state that the fire department is sponsoring the home visits. Describe what is involved in the home visit and include a brief letter from the fire chief encouraging participation and reinforcing that the smoke alarms are free.

If the budget includes postage, consider direct mail advertising. A home visit project in a rural county in Oklahoma mailed an oversized postcard to every home in the county asking people to call for an appointment for free smoke alarm installations. More people called for appointments after receiving the postcard in the mail than from other methods.

This team purchased a reasonably priced mailing list and used it to mail the postcards to homes in identified neighborhoods. They left packets at the doors of people who were not home at the time of the visit, with clear instruction on how the resident could reach them to reschedule a home visit.

If the identified community has homeowners associations, have a representative from the fire department contact the association manager to talk about the home safety visits and the benefits of installing smoke alarms. Request that they inform and encourage their members to welcome a home safety visit.

Bright Ideas:
Making presentations to high-risk audiences is another good way to share information about your program. Arrange to speak at senior centers, Head Start programs and school events. Bring sign-up sheets and information packets to increase interest and participation in home visits.

Conduct a Smoke Alarm Saturday. Announce two weeks prior to your selected Saturday that firefighters will be going door-to-door in designated neighborhoods to conduct home safety visits and installing free smoke alarms. Advertise the date of the home safety visits through newspapers and public service announcements.

Fire Protection Publications at Oklahoma State University/IFSTA

- A proven method to increase the percentage of homes participating is firefighters placing door hangers on each home prior to the Smoke Alarm Saturday.
- Work with large local retailers to host fire safety days. Recruit volunteers and firefighters from the home visit program to inform residents about the home visits and schedule appointments.
- Prepare signs or banners for fire department vehicles that will be used for home visits so residents throughout the community see information about the program and can ask for immediate or scheduled visits.

- Put placards announcing the program in places likely to be frequented by the high-risk audiences you most need to reach.
- Encourage ride-alongs with members of allied organizations and the media to educate them on the reality of a home fire and what can be done to prevent them. This also helps to generate additional referrals.
- Identify a central call-in number that residents can call for immediate service.

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Cleveland Division of Fire and Emergency Medical Service

Cleveland Division of Fire and Emergency Medical Service

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GAINING TRUST AND ACCESS

Publicity

Use the Internet and Social Media: Your department's website is the logical first step for promoting your program at very low cost. Create a link on your website for residents to learn about the program and schedule an appointment. Provide a phone number and include an online form for the resident to fill out. Because the number may generate a large call volume, it would be better for the number to be separate from the direct line to your department headquarters. Consider that people in high-risk homes may not be as connected as others. Ask the representatives from the community the best way to communicate.

Social media outreach can expand your reach and the impact of your home visit program. Learn more about tapping into these powerful communication tools. If you have a fire department blog or newsletter, be sure to provide information about the home visit program to the editor. Some community public health education programs have successfully used text messaging.

Cleveland Division of Fire and Emergency Medical Service

Paid Promotion: Depending on your budget, paid advertisements can reach a large television, radio and newspaper audience. Billboards and transit placard ads also achieve high exposure – and owners may be willing to donate the space to you especially if they are program partners. You can also pay for ads through social media outlets to increase your reach. A portable reader board sign is an inexpensive way to advertise when placed in a location with a high volume of traffic, such as sporting and special events, malls, or major intersections.

Public Relations: If your department has a public information officer (PIO), work together to create a media campaign. Well-orchestrated

outreach can net earned media coverage that will underscore the need for home visits in your service area and also publicize the dates of the program.

Unpaid Promotion: There are many other ways to promote your home visit program at no cost. Local print shops may help you create signage as well as flyer and ad artwork. By negotiating with your local media outlets, you may be able to acquire donated television and radio announcements and print public service ad placements. Local schools, libraries, child- and senior-centers, businesses and clergy may work with you to distribute flyers with the information and post signs and posters in windows.

Tip: In a classic study in Portland, Oregon, a survey of a low income, high-risk area found that virtually all of the people living there visited at least one of four types of places every week: food store, bank, liquor store and/or church. Placards in just these premises could reach virtually everyone at least once, and sometimes several times in a week.

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GAINING TRUST AND ACCESS

Partnerships

Partnering with groups, agencies and organizations in your home visit communities improves your chances of gaining access to homes. Working with partners can also increase sustained safety awareness beyond the home visit.

To identify people who might accompany firefighters on home visits, start by developing strong relationships with community leaders. Discuss the high-risk problem in their area and invite them to accompany you on home visits. Ask them how best to reach out to the community and about other successful programs that you can model or with which you can join forces. Become familiar with the norms and preferences of the audiences you most need to reach with your fire and life safety messages.

American Red Cross

Because the groups and organizations that routinely serve the individuals and families in your selected community already have trusted, well-established relationships, they may be able to help you open doors to high-risk homes. Some may already have home visit programs with which to partner. Partnering can extend your workforce to help with home visit promotion, scheduling, translation, installing life-safety devices and with educational messages. In some cases it may be more effective to have the trusted community partner take the lead when introducing the home visit team to the residents by saying, "I'm here to talk with you about smoke alarms, and by the way, here is my friend, Firefighter Jones, to help me."

U.S. Fire Administration

Some fire departments send a team of a firefighter and community partner for each home safety visit. Some departments train organization members to conduct home safety visits with fire department supervision.

Firefighters who live in, or come from the communities identified as being at increased risk may use their own relationships and cultural awareness to connect more easily. They can be strong advocates for the program. Retired firefighters may be a good resource as they have experience and knowledge. Consider recruiting them to be part of the visiting team, with training on updated and consistent messages and current best practices.

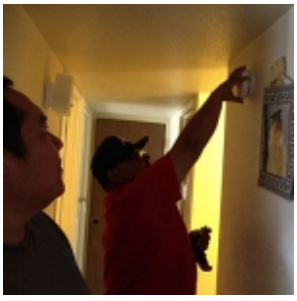
Examples of agencies, groups, clubs and organizations that may be working in your target communities are:

- **Senior Services:** In addition to working with your local organizations, consider recruiting healthy older adults to participate in your home safety visits.
- **Faith-Based Organizations:** Local houses of worship can help you spread the word about your home safety visit program and identify homes that most need this assistance. They may also be a source of important resources, such as translators, to help reach key audiences.

- **Veterans Groups:** Returning veterans may welcome opportunities to volunteer with local fire departments and may know of high-risk homes. Disabled veterans can offer a unique perspective to support home visits in homes where a resident has a disability.
- **Public Health Departments:** Local health departments can help plan, implement and evaluate an effective, data-driven home fire safety visit program. Nurses and physical therapists making home visits can help identify homes needing better fire safety. Twenty-two states have Centers for Disease Control and Prevention (CDC)-funded state injury prevention programs in their state health department and many unfunded states have similar programs.

Plano (TX) Fire-Rescue

- **Literacy Programs:** High-risk members of your community may have lower levels of income and education, which often correlate with poor reading and writing skills or difficulty in speaking and understanding English. Local programs that offer adult and family literacy outreach can help you access homes at higher risk of fire. Find a program in your community through the National Literacy Directory or by contacting ProLiteracy.
- **Immigrant and Refugee Groups:** These groups can support home access and provide cultural and translation assistance.
    - **WATCH:** The Tucson (AZ) Fire Department teamed up with the Sonora Environmental Research Institute to provide culturally sensitive fire safety information and smoke alarm installations in 2,000 homes.
- **Service and Professional Groups:** These groups may be a source for volunteers, fundraising and home visit support.
- **Language Groups:** Members of local groups or clubs may be able to help you with American Sign Language and other language translation services during home visits.
- **American Red Cross Chapters:** The Red Cross responds to a disaster every eight minutes, with nearly all of those responses being to home fires. The national organization sponsors a major national fire safety initiative encouraging their local chapters to partner with fire departments and others to conduct home safety visits.
    - For more information, read the Red Cross Home Fire Preparedness Campaign Smoke Alarm Installer Guide.
- **Meals on Wheels:** Meals on Wheels provides in-home senior nutrition programs in every state.
- **Injury Free Coalition for Kids:** Through hospital-based, community-oriented programs focused on research, education, and advocacy, this coalition currently includes 42 sites located in 40 cities, each housed in the trauma centers of their participating institutions.
- **Safe Kids:** There are 500 coalitions across the U.S.
- **Local Colleges and Universities:** Schools often have community service components through sororities and fraternities or even have training programs for fire-related careers. Schools of public health, nursing, and medicine are also likely to have community relations programs or practicum requirements for students to work in the community with an agency. Your community may also have an injury control research center with professionals who can help you with analyzing your fire data, program planning and evaluation. Find research funded programs and activities at the U.S. Centers for Disease Control and Prevention. The Michael H. Minger Foundation has developed a Campus Fire Safety Community Service project with a number of free, downloadable resources.



Michael H. Minger Foundation

- **HUD Healthy Homes:** The U.S. Department of Housing and Urban Development (HUD) Healthy Homes Initiative works to protect children and their families from housing-related health and safety hazards.
- **Nurse-Family Partnership:** This federally funded program provides public health nurses to assist low-income, first-time mothers and their families with weekly or biweekly home visits.
- **For-Profit Providers:** Private sector companies that serve your target audiences can be valuable partners. One example is BrightStar: This group provides in-home pediatric, newborn, and older adult healthcare solutions, and may have healthcare workers already working in the homes in your target area.

Read more about the value of partnering with others.

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ORGANIZING YOUR PROGRAM

Once you've identified the high-risk homes and potential partners, set goals for your program. Public health experts recommend framing these as SMART Goals, meaning they are:

- **S**pecific: avoids broad statements (tells who, what, when, where, how)
- **M**easurable: Identifies when target is reached
- **A**ction-Oriented: specifies what must be done
- **R**ealistic: is challenging but not unrealistic
- **T**ime-Oriented: imposes deadline requirements

An example of a SMART goal for a home safety visit goal might be: To reduce deaths and injuries from home fires in [your jurisdiction,] 1,000 smoke alarms will be installed between [date to date] by local teams including firefighter cadets.

Read more about creating SMART objectives.

> ***OUR PROGRAM GOALS***
>
> - *Conduct and publicize home visits for a small number of high-risk homes, to encourage other residents to participate.*
> - *Visit all high-risk homes in the target community over X period of time.*
> - *Conduct home visits for the whole community over a longer time period: X years.*
> - *Attract additional community organizations as program partners.*
> - *Conduct publicity and measure reach through number of media stories placed and who they reached.*
> - *Increase the number of line firefighters who are involved.*
> - *Create and fund a budget to sustain Community Risk Reduction (CRR) programs.*

Your department will need to determine the scope of your home visit program and the areas you will focus on, such as: install smoke alarms, discuss planning or conduct a home fire drill, identify and if possible correct fire and other hazards found in the home. Depending on your community risk assessment, this might include issues beyond fire safety, such as the prevention of older adult falls. These decisions will impact the estimated time for each visit.

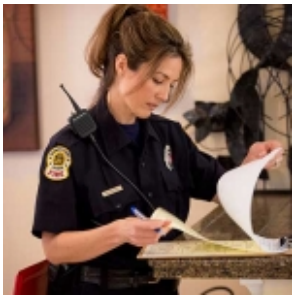
An effective home safety visit is not something that just happens, it is something that is well thought out and planned. You will want to train

and prepare the individuals who will represent your department in conducting these visits. Jump to the section on training.

Plan to work in teams of at least two people for each home visit. Typically, one person installs the alarms while the other talks with residents about how to prevent home fires, maintain their alarms, and plan and practice a home fire drill. One member of the team also records the data needed for evaluation. Gwinnett County Fire & Emergency Services utilizes at least three team members on each home visit. One person installs the alarms needed, one educates the residents, answers their questions (sometimes through a translator) and acts as a "scribe" to collect the data necessary for evaluation. The third team member (one or more) acts as a "scout" (with the resident's permission) to identify fire and other hazards that are of greatest concern. Having a larger team reduces the amount of time needed to complete the visit, and ensures the most important risks are identified and either addressed at that time or fully discussed so the resident knows what to do to correct the problem.

U.S. Fire Administration

Careful documentation is key. You will want to put a unique identifier such as a sticker on each smoke alarm installed in case of a future recall, investigation, etc. Track inventory carefully, distributing your smoke alarms and alert devices to the home visit teams in smaller batches and providing additional alarms only when you receive completed records on those installed.



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ORGANIZING YOUR PROGRAM

Stock Tools and Supplies for Alarm Installation

Plan ahead so the crew conducting the home safety visit has appropriate tools for installation of alarms. This is a basic list of tools that will be needed.

- Small two-step safety ladder (this will be fine for most installations, and it is light and easy to handle)
- Six-foot-tall step ladder for higher ceilings
- Charged cordless drill with proper bits
- Extra charged battery for the drill
- 1-1/4-inch drywall screws
    - **Tip:** Using drywall screws instead of the anchors and screws supplied with the alarm will cut installation time in half, leaving more time with the residents.
- Phillips and flathead screwdrivers
- Box knife
- Small hammer
- Pliers
- 10-foot measuring tape
- Small flash light
- Supply of batteries for the equipment you are installing
- Extra batteries for existing smoke alarms if appropriate*
- Marking pen (to write the date of installation on the inside of the alarms)
- Trash bags (to remove all of the smoke alarm and alert equipment packaging)
- Small handheld vacuum to clean up any sheetrock dust
- Clipboard and pen for documentation
- Stock tools and supplies for alarm installation
- Safety handouts
- Forms, electronic tablet (i.e. iPad) or other means of recording the visit

**It is preferable to install new smoke alarms with new sealed long-life alarms rather than replacing batteries in smoke alarms already in the home. Remember smoke alarms must be replaced every 10 years. You may not know the age of a smoke alarm in a home so install new ones.*

With the exception of the ladders, all the tools will fit easily into a small toolbox. Having all the tools needed at your disposal will make smoke alarm installation more efficient and allow more education time with the resident.

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ORGANIZING YOUR PROGRAM

Understanding Smoke Alarm Features

There are many different brands of smoke alarms available, but most fall under two basic types: ionization and photoelectric. Some alarms are dual sensor and have one of each in the same unit. In addition to these, there are alarms and alert devices available for people with hearing disabilities, and alarms that also detect the presence of carbon monoxide. Understanding how these alarms work, and the proper installation and maintenance of these alarms is critical for educating the residents during your home safety visits.

U.S. Fire Administration

Ionization or photoelectric alarms can be battery operated or hard-wired. Battery-powered units run on 9-volt or AA batteries, or a long-life lithium battery that may be sealed inside the alarm so the battery is non-replaceable. This feature is referred to as tamper-proof.

Hard-wired units are wired directly into the home's electrical system. Some will also have a backup battery that will power the alarm in case of a power outage. Hard-wired units are often interconnected throughout the home (meaning when one alarm sounds, all alarms are activated). You may encounter these in both private and multifamily homes.

This guide does not address installation of hard-wired smoke alarms, since most fire departments install only battery-powered alarms. They are faster to install and do not require an electrician. If you do encounter a hard-wired smoke alarm, still test it to see if it is operational and if it activates the other smoke alarms are connected to it. Also, check the date on it to see if it is more than 10 years old and if the battery is still operational. If the system is connected to an alarm company, notify the monitoring service before you test the alarm.

Leading national fire organizations and others recommend testing smoke alarm batteries once each month, and replacing batteries at least once per year or when the alarm "chirps," signaling the power in the unit is low. It is very important while conducting the home safety visit that you demonstrate to the residents how to test their alarms monthly and how to change the batteries and/or replace long-life alarms and alarms with sealed batteries.

When applicable, show how the hush button feature works. Don't assume that people know about this feature. New research[10] suggests that allowing residents to physically practice these steps leads to better results in maintaining working smoke alarms in high-risk homes. It is important to leave the instructions that are packaged with the smoke alarm and alert equipment with the consumer. But since some residents may not be able to read and understand them easily, take the time to talk through the key steps to maintaining working smoke alarms.

There are distinct differences between ionization and photoelectric alarms. Either smoke-sensing technology provides adequate warning of home fires. Ionization is more effective in detecting flaming fires. Photoelectric is more effective in detecting smoldering fires that make dark smoke. For best protection, it is recommend that every home have some of both ionization and photoelectric smoke alarms. In homes where

recommended installation distance from kitchens and bathrooms is an issue, use photoelectric models to reduce nuisance alarms (because ionization alarms are more likely to signal from cooking vapors and steam near these areas). Read the manufacturers' instructions for more details about proper location of smoke alarms.

> *It is important to inform the residents that all smoke alarms have a life of no more than 10 years. All alarms older than 10 years must be replaced.*

Fire Protection Publications at Oklahoma State University/IFSTA

When purchasing and installing smoke alarms, be sure to check the package to ensure they are listed by a nationally recognized testing laboratory (NRTL) that is listed by OSHA as accredited to test and certify to Underwriters Laboratories (UL) Standard 217. The following NRTLs are OSHA accredited:

- Underwriters Laboratories (UL)
- Factory Mutual (FM)
- Intertek (ETL)

During the visit, look for the manufacturing date on the back of the alarms already present in the home. If you do not see one, replace the alarm and write the date of installation on the inside cover.

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ORGANIZING YOUR PROGRAM

Smoke Alarms for People with Hearing Loss

People who are hard of hearing need an alert device installed where they sleep that makes a low-frequency sound and activates a bed shaker for a tactile alert. People who are deaf need the bed shaker to wake them up and a visual alert such as a strobe light. For more information:

Fire Protection Publications at Oklahoma State University/IFSTA

Home Fire Safety Solutions Smoke Alarm Project, developed by Oklahoma State University's Fire Protection Publications and Oklahoma ABLE Tech.

NFPA Tip Sheet on smoke alarms for people who are deaf or hard of hearing

Here are some examples of these specialized alarms and alert devices.

Lifetone™ :
This alert device actively listens for the sound of a conventional smoke alarm. It is not a smoke alarm. It is activated by the signal from a conventional smoke alarm. The Lifetone has seven-day back-up battery power.

When it detects the sound of the smoke alarm, it creates four signals:

- A loud 520 Hz square-wave alarm (90 dB).
- A powerful clamshell-like vibrating bed shaker (placed under the mattress).
- Instruction in a loud voice ("Fire! Get out!") in multiple languages.
- The word "FIRE" is displayed in large text against a flashing orange backlight.

Installation takes approximately 20 minutes. If you find that it doesn't respond to the existing smoke alarms, replace them with smoke alarms that generate the correct signal.

Fire Protection Publications at Oklahoma State University/IFSTA

Gentex®:
This photoelectric, single-station smoke alarm is designed to alert with both an audible and visual signal. The audible alarm is the standard UL 217 temporal three high-frequency sound. The visual alarm is a strobe light. Gentex makes a model that is AC-powered with a nine-foot-long cord and a 9-volt backup battery. The battery provides backup power to the smoke alarm only. The alarm does not require an electrician to install. The alarm is packaged with a small bracket that is used to prevent the alarm from being unplugged. It is secured with the small screw that keeps the receptacle cover in place.

SafeAwake™ :
This device is triggered by a conventional smoke alarm sound and includes a motorized bed shaker, a

flashing light, and a low-frequency, high-decibel square-wave sound.

CAUTION: There are several devices on the market that claim to notify people who are deaf and people who are hard of hearing to a residential smoke alarm sound. At publication time, only two devices are listed by national testing laboratories: Lifetone and SafeAwake, and some Silent Call equipment.

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TRAINING YOUR HOME VISIT TEAM

> - *Tools and supplies for installation (i.e. getting ready for the day)*
> - *Knocking on the door (what to say when resident answers)*
> - *Alarm installation and placement*
> - *Communicating with residents (alarm maintenance, escape plan, etc.)*
> - *Recording data about your home visit*

Read about the Mississippi State Fire Marshal's Office training program. Learn about this and other programs and partnerships on the Vision 20/20 website.

Entering People's Homes

One of the most important aspects of this program involves the installers spending time in people's homes as they install the alarms, explain how to use them, identify obvious fire risks and educate people about fire prevention. Installers may spend additional time when working with people in rural areas or older adults who may have less contact with people. Yet entering and remaining in someone's home can involve unexpected issues.

Preparing installers for unusual circumstances should be part of their training, so they can react professionally. Some circumstances may be due to differences in attitudes and lifestyles. Many of the people you serve with this program may live in poor neighborhoods or homes needing repair. Some may have no heat or air conditioning. Others may have poor lighting, insect control problems or lots of clutter. Some circumstances may be, or may appear to be dangerous. If home visit team members believe they are at risk for injury, they should not enter the home.

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TRAINING YOUR HOME VISIT TEAM

Smoke Alarm Installation

Home fires produce smoke and other dangerous gases that are very hot and rise. Smoke alarms must be installed on the ceiling or high on a sidewall to provide the earliest possible warning. NFPA 72 recommends installing smoke alarms on every level of the home, in each bedroom and outside each sleeping area. When installing alarms, follow the manufacturer's installation instructions. Here's a quick review:

Where to install smoke alarms: It is recommended that smoke alarms be installed on every level of the home, including basements, in each bedroom and outside each sleeping area. The preferred location for smoke alarms is on the ceiling close to the center of the room. Smoke alarms mounted on walls shall be located not farther than 12 inches from the adjoining ceiling surface. Please refer to the diagram below:

For vaulted ceilings, the installation should be 12 inches vertically down from the highest point of the ceiling but not more than 36 inches and as close to the center of the room as possible. In multistory homes, install smoke alarms at the top of the first-to-second floor stairway and on the basement level.

NFPA Tip Sheet on Smoke Alarm.

Where NOT to install smoke alarms: Nuisance alarms are the main reason that smoke alarms are disabled.[2]So when choosing the location for smoke alarms, avoid these locations which can cause the alarms to signal:

- In kitchens, or within 10 feet from a cooking appliance
- Near poorly ventilated kitchens
- Within 6 feet of furnaces or water heaters
- Within 3 feet of forced air heating or cooling vents
- In or near damp or humid areas such as laundry rooms or bathrooms
- Near exterior doors or windows
- Porches, in garages, attics or spaces that are not climate controlled.

> *IMPORTANT: Some people sleep in spaces that are not bedrooms. Ask people where they sleep, and install alarms and alert devices based on where they sleep. In Oklahoma, a long-term smoke alarm project has installed many alert devices next to*

> *recliners with the "bed" shaker in the recliner, where the person sleeps.*

Maintenance

Take time during the home safety visit to talk with the residents about maintaining their alarms and explain that a disabled smoke alarm could cost them or someone they love their life. All smoke alarms no matter the style — battery operated or hard-wired — need to be replaced at least every 10 years. Refer to the manufacturer's instructions. If a smoke alarm constantly has nuisance alarms, relocate it per the manufacturer's installation instructions rather than removing it permanently. This most commonly is an ionization alarm too close to the kitchen. Install a photoelectric alarm to provide the family protection and to reduce nuisance alarms when they burn a pizza, for example.

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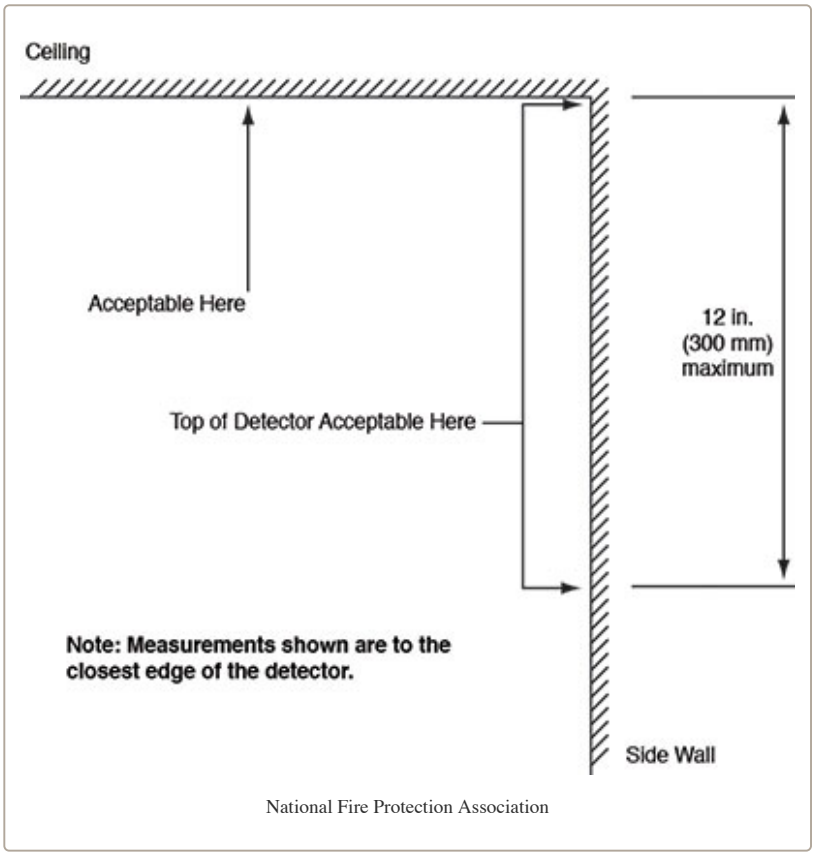

National Fire Protection Association

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TRAINING YOUR HOME VISIT TEAM

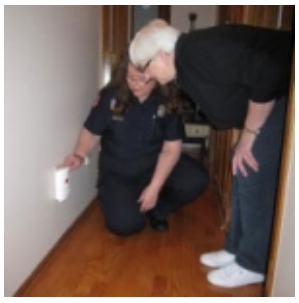
If You Install CO Alarms

Some home visit programs include the installation of carbon monoxide (CO) alarms as well as smoke alarms. Carbon monoxide is a colorless, odorless, tasteless and highly toxic gas generated anytime a fuel such as gasoline, oil, charcoal, wood, natural gas, or propane is burned. Many common household appliances can emit carbon monoxide even though they are properly vented to the outside. However, the improper use of generators, vehicles and engines running in garages can cause carbon monoxide to enter a home, as can a fossil-fuel-burning appliance if it is not properly vented. During 1999–2010, a total of 5,149 deaths from unintentional carbon monoxide poisoning occurred in the United States, an average of 430 deaths per year.[11] CO is known as the "silent killer."

> *A carbon monoxide alarm alerts when it detects a preset level of carbon monoxide. CO alarms are the only way to know if there are dangerous levels of carbon monoxide present in a home.*

There are two types of CO alarms: battery-operated and AC-powered with battery backup. Like smoke alarms, the batteries in the CO alarms need to be replaced at least once per year. The life of a CO alarm is shorter than smoke alarms. Refer to the manufacturer's instructions; generally they should be replaced every 5–7 years. During the home safety visit, make sure the residents know the difference between a smoke alarm and a CO alarm and how to change the batteries and conduct the monthly test of each one.

Where to install CO alarms: NFPA recommends that CO alarms be installed in a central location outside of each sleeping area, with one on every level of the home. Manufacturers' recommendations on where to install the alarms differ by brand to a certain degree based on research conducted with each one's specific alarm. Therefore, make sure to read the provided installation manual for each alarm before installing, and make sure the CO alarm meets the UL standard 2034.



SBM Fire Department

Where NOT to install CO alarms: Proper placement is important to prevent nuisance alarms. It is best to avoid these locations:

- Unheated basements, attics, or garages
- Areas with high humidity such as bathrooms and laundry rooms
- Within three feet of forced heating or cooling vents
- Within six feet of corners or areas with little circulation

- Within six feet of fuel-burning appliances or fireplaces

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MODEL FOR HOME VISITS

Your Home Safety Visit

You want to make the most of the time that you have with the residents to reach the goals of the home safety visit program. A good target time for a typical visit is about 30 minutes. Three- or four-member teams can accomplish the necessary steps in 15 minutes. Some fire departments offer comprehensive home safety visits that last one-and-a-half hours and cover fire and other home hazards. You need to balance the time spent in each home with the volume of requests and the number of people to conduct them.

- It is advised that a waiver be signed prior to each home safety visit. The waiver is to be signed by an adult acknowledging that he or she understands the limits of the home safety visit. The waiver is intended to protect the department and its personnel against potential legal actions. NFPA offers sample waiver language on page 15 of its free guide: Planning and Implementing a Successful Smoke Alarm Installation Program. Once you've prepared a waiver for your program, have it reviewed by your department's legal staff to make sure it covers all necessary issues. If possible, work with a local adult literacy group to make sure your waiver is easily understood by all residents in your program. Find a program through the National Literacy Directory or by contacting ProLiteracy through its website.

> *Proper documentation of each fire safety visit will help you achieve goals, measure success, document activities, manage equipment inventories, and support evaluation.*

Download and tailor a model home safety visit questionnaire developed by the Washington State Association of Fire Marshals and Vision 20/20.

The key information on the form is the status of smoke alarms when you arrived at the home, the status when you left, what fire safety and other safety information you gave to the household verbally or in literature, and the risk demographics of the household.

Read more in the Evaluation section of this guide.

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MODEL FOR HOME VISITS

Covering Basic Fire Safety Information

The home fire safety information presented during the home safety visit will vary depending on who lives in or visits the home—such as children or older adults. Every home needs basic information and guidance. Take time to cover these major points so your audience understands the "why" behind the message:

1. Fire is fast and smoke kills. When smoke alarms alert, people have three minutes or less to escape. A fast escape depends on practicing a family fire drill so everyone knows how to get out FAST. Children will most likely not wake up unaided. During practice, determine who will help children and adults who may move slower. Have a safe meeting place in front of the home. Know how to call the fire department when you are outside.
2. Once your audience understands the dangers of a home fire, assure them there are simple and very effective steps they can take to protect themselves and their loved ones. Working smoke alarms are key to surviving a home fire because they can wake people up in time to get to safety. Advise the household on how many more smoke alarms they need to meet code, if you do not provide enough. Explain why it is important to have one in each bedroom, on each level. Go through the home with the residents and:

3. Have an adult test all smoke alarms present in the home except ones tied into a private alarm system that is monitored (you don't want to cause a false alarm). Explain the different sounds a smoke alarm makes – when it detects a fire, and when it "chirps" to signal low power. Make sure the residents understand what to do in each case.
4. Replace or install new alarms as needed to allow the household to have most, if not all, required by code. Also, explain the best locations for the alarms and why, and the need to replace the alarms after 10 years. Write the date you installed the alarms on the inside cover.
5. If applicable, explain how the hush feature of the alarm works and how to use it. Let the adult caregiver practice doing this him/herself and how to fan smoke away.
6. Demonstrate to the resident how to test and clean the alarms, and, if applicable, how to change the batteries. If possible, let the adult caregiver practice doing this.
   Note: This is a good time to give an adult resident a copy of both NFPA's smoke alarm safety sheet *and, if applicable for that home,* NFPA's CO alarm sheet.
7. Ask the residents if they have an escape plan. Hand them an escape-planning tool.
   Two sources: ProLiteracy Home Fire Drill Poster in English and Spanish.
   NFPA Escape Plan Tip Sheet

- When you ask this, wait for an answer. Time permitting, let them show you what their escape plan is, and review the following key points and explain why they are important:
- Do they have two ways out of each room? Explain their second way out may be a window. For an upper level, they may need an escape ladder.
- Do they sleep with the doors closed? A closed door slows the spread of heat and smoke. Do they have an outside meeting place? This helps residents know if someone hasn't escaped.
- Do they practice their escape plan as a family?

ProLiteracy Smoke Alarm Illustrations

Color

In grayscale

Black-and-white line drawings

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MODEL FOR HOME VISITS

Talking to Residents – Some Recommendations

Download a free app with four home fire safety videos to share during your home visits. Produced by the Friendship Veterans Fire Engine Association in partnership with the Institution of Fire Engineers – Vision 20/20, these videos cover the speed of fire, smoke alarms, escape planning and practice, and cooking fire safety. They are presented in English, Spanish, Mandarin Chinese and American Sign Language.

You can download the free “Safety Visits” App from the Apple store. The Android version of the “Safety Visits” App is available on Google Play. Download fire safety sheets prepared by NFPA and ProLiteracy. These are illustrated, with minimal wording that is intended for adults with low English literacy proficiency.

Download on the App Store

Available on the Android App Store

Smoke Alarms

- Fire can move very fast. Smoke alarms give you the added time you may need to escape, and to get others in the home awake and moving.
- Most people who die in fires die from the smoke, not burns. Smoke from a fire is deadly. You need working smoke alarms in your home to keep you and your family safe. They will give you early warning so you have more time to get out of the home.
- Make sure your smoke alarms work — push the test button monthly. If you do not hear the loud alarm noise, you need a new battery or a new alarm. Fix this immediately.
- If the battery in your alarm makes a “chirping” sound, put in a new battery. If your have a sealed smoke alarm, where you cannot access the battery, then it is time to replace the entire smoke alarm.
- Replace smoke alarms with new ones if they are 10 years old or older.
- NFPA Tip Sheet

Make an Escape Plan

- Show your family what to do if they hear the smoke alarm. Fire and smoke move fast, and you need to know at least two ways to get out of each room (door, window, onto roof, etc.) and outside from there.
- Pick a meeting place outside and in front of your home where everyone will gather. This is to make sure everyone is out, and it protects rescuers from entering a dangerous environment to look for someone who is already safe.
- Some children and older adults do not wake to the smoke alarm when they are sleeping. Plan and practice how you will help them get out if the smoke alarm sounds.
- Practice your escape plan with everyone in your home two times each year.
- NFPA Tip Sheet
- *Note: For some, particularly some older adults or those with mobility impairments, a "defend in place" strategy is their only option. Be prepared to discuss this when applicable.*
- NFPA Escape Planning in Tall Buildings

What to do if your alarm goes off

- Go to your outside meeting place immediately.
- Call 9-1-1 or the fire department from outside.
- Never go back inside a burning building.

Cooking Safety

- Keep an eye on what you fry — stay in the kitchen when you are using high heat to fry, grill, or broil food.
- Make the cooking area safe. Clean and clear the area around the stove before you turn on the heat.
- Keep children and pets at least three feet away from the stove.
- Know what to do if your pan is on fire. Keep the pan where it is and slide a lid or a cookie sheet over the top to put out the flames.
- USFA Cooking Safety Page
- USFA Cooking Flyer
- NFPA Tip Sheet

Heating Safety

- Give space heaters space. Keep them at least three feet from anything that can burn. Turn off heaters when you leave the room or go to sleep.
    - NFPA Tip Sheet

Smoking

- Ask smokers to smoke outside.
- Use deep, sturdy ashtrays.

- Put water on cigarette butts before you throw them in the trash.
- USFA Smoking Page
- NFPA Tip Sheet

Matches and Lighters

- If there are children in the home, keep all matches and lighters in a locked place.

Candles

- Use flameless candles.
- Keep lit candles at least one foot from anything that can burn — they may fall or get knocked over. Don't put them directly on wood, plastic, or another flammable surface.
- Only light candles when an adult is in the room. Blow them out when you leave the room or go to sleep.
- USFA Candle Fire Safety Page
- NFPA Candle Safety

Install Fire Sprinklers

- If you are building or remodeling your home, install home fire sprinklers. If you're moving, choose a home with fire sprinklers if possible. Sprinklers will keep the fire small or even put it out in less time than it would take the fire department to arrive. View this 30-second public service announcement from the Home Fire Sprinkler Coalition (HFSC) to help residents understand this technology. Additional free information and tools are available from HFSC at homefiresprinkler.org.
- Home fire sprinklers uniquely meet the needs of people with disabilities. Watch this video produced by Oklahoma State University, which details a fire sprinkler retrofit project.

While you are conducting your home safety visit, you may well come across unsafe practices in the home, such as matches lying around, heaters too close to flammable materials, etc. When you address issues, give solutions to the problems.

Some homes are going to require you to address special needs. These include:

- Young children
    - Young children may well sleep through the smoke alarm sound and need an adult caregiver's help to wake them up and lead them out.
    - Special attention should be given to households with very young children. Early warning is imperative especially when there are more children than adults in the home.
- Older adults
    - For this audience, consider offering both fire safety and fall prevention information. For details on why this is important and key messaging, review NFPA's Remembering When program.
- Persons with disabilities, including those who are deaf, hard of hearing, blind, and/or have low vision or mobility impairments.
- For more information:
    - Read Oklahoma's Fire Safety Solutions for People with Disabilities – How to Implement a Home Fire Safety & Smoke Alarm Installation Program A Model Program from Oklahoma that Saves Lives.
    - Read the International Fire Service Training Association's (IFSTA) research on this important topic.
    - Review the section on smoke alarms for people with hearing loss.

- NFPA offers safety tips for people with disabilities.
- USFA offers a page on Fire Safety for People With Disabilities.

- Homes with signs of hoarding.

During the visit, make notes of important things for the residents to do after you leave.

- Review the key points at the end of the home safety visit, and allow time for questions and answers with the residents.
- Make sure the residents especially adult caregivers understand, and that you have satisfactorily answered all their questions.
- Give them a number to call in the event that questions or issues arise after you leave.
- Encourage residents to use their checklist as an ongoing reminder of key safety tips and as their template of change.

Since they won't remember all that you teach, the notes will provide them with a positive reference sheet.

HOME FIRE SAFETY

Home Fire Safety Checklist

Heating

- ☐ Baseboard heaters do not touch any furniture or curtains, or other items stored on the floor.
- ☐ Have chimneys and heating systems inspected, cleaned and repaired prior to the heating season.
- ☐ All portable heaters are placed at least three feet from bedding, furniture, and other flammable materials. They are plugged directly into the outlet, not into an extension cord.
- ☐ Portable heaters are turned off when you leave the room or before going to bed.
- ☐ Every fireplace is equipped with a sturdy metal screen.

Electrical

- ☐ Extension cords are intended to be temporary wiring, never a permanent solution for wiring.
- ☐ Extension cords used are not tacked to walls, run under rugs, or through doorways.
- ☐ Small appliances, like the toaster, are unplugged when not in use.

Housekeeping

- ☐ Matches and lighters are kept out of the reach of children in a secure place.
- ☐ Paint, varnish, and other flammables are stored in sturdy metal containers in a cool place.
- ☐ Ashes from fireplaces and barbecues are only disposed of in metal containers.
- ☐ Candles are only lit when someone is able to keep an eye on them and when placed in sturdy holders away from things that can burn.

Kitchen

- ☐ In the event of a grease fire, know that the best thing to do is to put a lid on it.
- ☐ Cooking is never left unattended.
- ☐ The oven is never used to heat the home.

Smoking

- ☐ Do not smoke in bed or while lying down.

Smoke Alarms

- ☐ Smoke alarms are installed on a ceiling or high on the wall in each bedroom and on each level of the home.
- ☐ Smoke alarm batteries are changed once a year or as recommended by the manufacturer.
- ☐ Smoke alarms are tested and vacuumed regularly.

Escape Plan

- ☐ Have a plan of escape showing two ways out of every room in your home, especially bedrooms.
- ☐ Regularly practice your escape plan by holding fire drills in your home.
- ☐ Windows used for escaping can be opened easily.
- ☐ House numbers are clearly visible from the street.

(Over)

Chelan County (WA) Fire District

Home visit teams often encounter situations such as overcrowding, unsafe use of cooking and heating equipment and other hazards. It is essential that these potentially dangerous conditions be approached with the resident with sensitivity and without moral judgment. The intent should be to address the hazard and equip the resident with the steps they can take to protect those living in the home. With kindness and in simple terms, help residents understand their potentially dangerous conditions and the steps they can take to protect those living in the home. If appropriate, share information on other community services and resources that might be available and offer to make those connections.

Finally, remember your own safety. People with mental illness or social problems and residents who simply don't want to take advantage of the situation can be negative. Always take necessary safety precautions. It is important to be smart, cautious and if necessary take action to protect yourself during the visit. When doing the home safety visits, work in pairs or more. If you sense something is not right, trust your instinct and leave.

Teachable Moments

When there is a home fire in a neighborhood, everyone knows about it, and everyone is affected by it directly or indirectly. Every time a person drives by the burned home, they are reminded that this could easily have been their home and their family. This is an opportunity to advance your home safety program and help a neighborhood heal. Regardless of whether the fire is in an area of high risk, it's an excellent teachable moment.

Emergency medical calls provide the opportunity for identification of hazards in the home. During or immediately following the response, offer to install smoke alarms and/or batteries in homes without them and provide information to address and resolve the hazards you've identified. When time or circumstances do not allow for immediate action, ask to follow up at a later time.

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DEPARTMENT PROGRAM EVALUATION

The next step is to analyze the program's development and document its early implementation. If you have to make any changes to your program, do so quickly. Obviously everyone wants to see success early on, and there are some things that you can do to see early success. For example, focus on the high-risk areas in your district. This will give the greatest early returns.

Constantly analyze your findings and evaluate your methods, and then implement the necessary changes for the success of your home safety visit program. Understand that to make a measurable difference, this approach requires a long-term commitment of at least several years. Jump to an example of a data-collection form that will help document results for home safety visits. The form provided is an example of the type of data you would want to collect in order to track the results your program is producing. But analyzing this data is required in order to understand how it might demonstrate results to others over time. And it is critical to interpret the results to gain valuable insights for future planning so that you can continually improve your program.

As you gather data, it is important to use that data to drive your operational decisions, and again, measure both your successes and challenges. Some suggested metrics include:

- Number of doors knocked on in relation to homes where you were able to gain access
- Number of alarms working before installing and number of working alarms after installing
- Number of alarms working just after visit; number of alarms working six months later and one year later
- Total number of alarms installed
- Random sampling of homes for working alarms – not all homes
- Indicators of educational gain in home – some random pre/post testing of the educational component
- Tracking over time the fire incidence and fatalities in homes visited versus not visited

A free training course is available from Vision 20/20 to help fire departments with their program evaluation. Share this course with your team.

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CONCLUSION

Firefighters are sworn to protect and serve the people in their community. Home safety visits are a powerful and effective tool to protect and serve. When you respond to a fire and the people are waiting for you outside, they are safe and you and the other firefighters are safer too.

Remember, every home you go into represents a family that potentially could be saved from injury or death from a fire or accident. Understand that each home safety visit is unique and will require you to address issues that are particular to the residents' needs. When you leave a home, make sure that you left it equipped with the tools needed for that family to effectively reduce the likelihood of a fire or fire injury. And remember to take all your trash with you. Residents really appreciate this. Take the empty smoke alarm boxes, leaving the instruction manual with the residents. There have been rare reports of residents attempting to return smoke alarms in the original packaging for a refund.

When your fire department takes on the task of implementing a program such as this, you can take comfort knowing that your work will make your community a safer place to live. The information, advice and education from the home safety visit, as well as the alarms that are installed, will very likely save lives, injuries and property damage.

Resources

American Red Cross
Chapter Directory
(www.redcross.org/find-your-local-chapter)
Home Fire Preparedness Campaign Smoke Alarm Installer Guide
(HFPCSmokeAlarmInstallerGuide.pdf)

Friendship Veterans Fire Engine Association/Vision 20/20 Resources
Home Fire Safety Videos
Download free apps with four home fire safety videos to share during your home visits. Produced by the Friendship Veterans Fire Engine Association in partnership with the Institution of Fire Engineers – Vision 20/20, these videos cover the speed of fire, smoke alarms, escape planning and practice, and cooking fire safety. They are presented in English, Spanish, Mandarin and American Sign Language. You can download the free "Safety Visits" App from the Apple store. The Android version of the "Safety Visits" App is available on Google Play.

Home Fire Sprinkler Coalition
Free Information and Tools

(www.homefiresprinkler.org)
30-Second Broadcast Public Service Announcement
(www.homefiresprinkler.org/index.php/ask-for-home-fire-sprinklers)

International Fire Service Training Association (IFSTA)/ResourceOne/Vision 20/20 Community Risk Reduction Training
A five-part training program that introduces Community Risk Reduction as a way to create a safer community
(www.strategicfire.org/page.cfm/go/Community-Risk-Reduction-for-Fire-Service-Leaders)
Research on Fire Safety for People with Disabilities
(www.homesafetyvisit.org/wp-content/uploads/2014/11/OK-Fire-Safety-Implementation-Guide.pdf)

Injury Free Coalition for Kids®
Coalition Website
(www.injuryfree.org)

International Code Council's Sound the Alarm – This program was developed by the International Code Council in partnership with the National Volunteer Fire Council through an Fiscal Year Fire Prevention and Safety grant from the U.S. Department of Homeland Security/FEMA. It focused on rural communities in states with the highest per capita fire fatality rates. The program provides guidance on home visits, including a basic home safety inspection and smoke alarm installation and replacement. It emphasizes that correct addresses should be properly displayed and visible for first responders. Materials now reside on the Fire Corps website.
(www.firecorps.org/departments/grow-a-program).

Meals on Wheels
Directory
(www.mowaa.org/findameal)

Michael H. Minger Foundation
Campus Fire Safety Community Service Project
(www.mingerfoundation.org)

MySafe:LA
www.mysmokealarm.org – MySmokeAlarm is a new concept in Internet management of a family's fire protection systems and preparedness. Developed by the Safe Community Project and MySafe:LA to help families be better prepared in the event of a home fire.
Home fire safety inspection software is also available at www.purecommand.com

National Fire Academy Classes
Course Catalog (http://www.usfa.fema.gov/training/nfa/)
1) Community Risk Reduction by Company Officers
2) The Changing American Family at Risk
3) Cultural Competence in Risk Reduction
(www.usfa.fema.gov/nfa/catalog/)

National Fire Protection Association Resources
NFPA Public Fire Education Planning for Urban Communities: A Five-Step Process Guide to Success
(www.nfpa.org/~/media/files/safety%20information/public%20educators/urban%20task%20force/urban5stepprocess.pdf)
NFPA Smoke Alarm Installation Guide: Planning and Implementing a Successful Smoke Alarm Installation Program
(http://www.homesafetyvisit.org/wp-content/uploads/2014/11/Smoke-Alarm-Installation-Guide-3.pdf)
NFPA-1452: Guide for Training Fire Service and Personnel to Conduct Dwelling Fire Safety Surveys (www.nfpa.org/codes-and-standards/document-information-pages?mode=code&code=1452)
NFPA Tip Sheet on Smoke Alarms (www.nfpa.org/~/media/Files/Safety%20information/Safety%20tip%20sheets/SmokeAlarms.pdf)
NFPA Tip Sheet on Smoke Alarms for People Who Are Deaf or Hard of Hearing
(www.nfpa.org/~/media/Files/Safety%20information/Safety%20tip%20sheets/SmokeAlarms.pdf)
NFPA CO Alarm Tip Sheet
(www.nfpa.org/~/media/Files/Safety%20information/Safety%20tip%20sheets/cosafety.pdf)
NFPA Escape Plan Tip Sheet
(www.nfpa.org/~/media/Files/Safety%20information/Safety%20tip%20sheets/escapeplanningtips.pdf)

NFPA Heating Safety Tip Sheet
(www.nfpa.org/~/media/Files/Safety%20information/Safety%20tip%20sheets/heating_safety.pdf)
NFPA Smoking Tip Sheet
(www.nfpa.org/~/media/Files/Safety%20information/Safety%20tip%20sheets/smokingsafety.pdf)
NFPA Candle Safety
(http://www.nfpa.org/safety-information/for-consumers/causes/candles/candle-safety-tips)
NFPA Safety Tip Sheets
(www.nfpa.org/safety-information/for-consumers/causes/candles/candle-safety-tips)
NFPA Easy-to-Read Handouts and Safety Tip Sheets in Other Languages
(www.nfpa.org/safety-information/safety-tip-sheets/easy-to-read-handouts-in-other-languages)
NFPA Cooking Tip Sheet
(www.nfpa.org/~/media/Files/Safety%20information/Safety%20tip%20sheets/cookingsafety.pdf)
NFPA—Remembering When: A Falls and Fire Prevention Program for older Adults.
(www.nfpa.org/safety-information/for-public-educators/education-programs/remembering-when)

National Literacy Directory
Directory of Programs
(www.nationalliteracydirectory.org/)

Nurse-Family Partnership
Locations
(www.nursefamilypartnership.org/Locations)

Oklahoma State University's Fire Protection Publications and Oklahoma ABLE Tech
Home Fire Safety Solutions Smoke Alarm Project

Oklahoma State University Resource
Oklahoma's Fire Safety Solutions for People with Disabilities – How to Implement a Home Fire Safety & Smoke Alarm Installation Program
A Model Program from Oklahoma that Saves Lives
(www.homesafetyvisit.org/wp-content/uploads/2014/11/OK-Fire-Safety-Implementation-Guide.pdf)
Course 1: Firefighters Serving People with Disabilities

Philadelphia (PA) Fire Department Video Clip
This clip addresses the Philadelphia Fire Department's home fire safety visit program with former Commissioner Lloyd Ayers (retired).
(www.strategicfire.org/page.cfm/go/videos/videosid/13)

ProLiteracy Literacy-Friendly Smoke Alarm Illustrations for Home Visits
With support from Vision 20/20 and the Washington State Fire Marshals Association, ProLiteracy has created guidance and tools to use with residents who may not read well or do not yet understand English well. The illustrations come in three formats: color, grayscale, and black-and-white line drawings. The content is the same for each. There is very little text. The Tip Sheet provides detailed information on how to present key information about smoke alarms and fire safety. You have permission from ProLiteracy to download and print the illustrations to use when doing home visits to install smoke alarms, do safety checks, or provide safety education.
Tip Sheet (how to use the illustrations)
(www.proliteracy.org/Downloads/firesafety_smokealarmtipsheet.pdf)
Smoke Alarm Illustrations (color)
(www.proliteracy.org/Downloads/firesafety_smokealarms_color.pdf)
Smoke Alarm Illustrations (grayscale)
(www.proliteracy.org/Downloads/firesafety_smokealarms_bw.pdf)
Smoke Alarm Illustrations (black-and-white line drawings)
(www.proliteracy.org/Downloads/firesafety_smokealarms_line.pdf)
Fire Safety Cooking
(www.homesafetyvisit.org/wp-content/uploads/2014/11/Fire-Safety_Cooking-F_Color.pdf)

Safe Kids
Coalitions

(www.safekids.org/coalitions)

Spring Lake Park-Blaine-Mounds View (MN) Fire Department Resources
The Home Safety Challenge Program has a wide variety of resources you can adapt for your local community.
Program page (www.homesafetychallenge.org/)
Safety Videos (www.homesafetychallenge.org/home_safety_videos.cfm)
Comprehensive home visit checklist (www.homesafetychallenge.org/home_safety_more_information.cfm)

Underwriters Laboratories
UL 217 Standard for Single and Multiple Station Smoke Alarms
(www.ulstandards.ul.com/standard/?id=217)
UL 2034 Standard for Single and Multiple Station Carbon Monoxide Alarms
(www.ulstandards.ul.com/standard/?id=2034)

U.S. Census Bureau Resource
American Fact Finder site with population and other community facts
(www.factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml)

U.S. Centers for Disease Control and Prevention
Safe States Alliance
(www.safestates.org/)
Funded Injury Control Research Centers
(www.cdc.gov/injury/erpo/icrc/)

U.S. Department of Housing and Urban Development
Healthy Homes Initiative
(www.portal.hud.gov/hudportal/HUD?src=/program_offices/healthy_homes/hhi)

U.S. Fire Administration Resources
USFA Smoke Alarm Outreach Materials
(www.usfa.fema.gov/prevention/outreach/smoke_alarms.html)
USFA HomeEscape Planning Outreach Materials
(www.usfa.fema.gov/campaigns/smokealarms/escapeplans/index.shtm)
USFA and CDC Fire Safe Seniors Implementation Guide
(www.usfa.fema.gov/downloads/fire_safe_seniors/implementation_guide.pdf)
USFA Cooking Flyer
(www.usfa.fema.gov/downloads/pdf/publications/kitchen_fires_flyer.pdf)
USFA Publications
(www.apps.usfa.fema.gov/publications/)
USFA Statistics
(www.usfa.fema.gov/statistics/)
USFA Photographs
(www.usfa.fema.gov/media/visuals/photos/)
USFA-Working With The Media
(www.usfa.fema.gov/media/psa/)

Vision 20/20 Resources
Free Training Course on Program Evaluation
(www.strategicfire.org/page.cfm/go/Performance-Measurement-&-Evaluation)
Community Risk Reduction Data Collection Form
(www.homesafetyvisit.org/wp-content/uploads/2014/11/CRR-Home-Safety-Questionnaire.docx)
Advocacy Toolkit: Creating Demand for Prevention
(www.strategicfire.org/advocacytoolkit/a-detailed-guide.html)
Model Forms for Data Collection
(www.strategicfire.org/advocacytoolkit/national-data.html)

Communicating Via the Internet and Social Media
(www.strategicfire.org/advocacytoolkit/social-media.html)
Advocacy Toolkit: Partnering with Others
(www.strategicfire.org/advocacytoolkit/comprehensive-advocacy.html)
Advocacy Toolkit: Creating SMART Objectives
(www.strategicfire.org/advocacytoolkit/setting-your-objectives.html)
Advocacy Toolkit
The Tucson (AZ) Fire Department teamed up with the Sonora Environmental Research Institute to provide culturally sensitive fire safety information and smoke alarm installations in 2,000 homes.
(www.strategicfire.org/advocacytoolkit/comprehensive-advocacy2.html)
Symposium: Mississippi State Fire Marshal's Smoke Alarm Installation Project
(www.strategicfire.org/page.cfm/go/V2020-2014-symposium)

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Protection Association, March 2010.
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