A GUIDE TO SMOKE DETECTOR PROJECTS

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OVERVIEW

A working smoke detector in the home increases the chance of survival of a residential fire by 2 to 3 times. The National Fire Protection Association (NFPA) estimates that 93% of homes in the United States have a smoke detector. However, NFPA has also found that in homes which had fires, as many as one-third of the smoke detectors did not work. By self-report, 9 out of 10 Oklahoma homes have working smoke detectors. However, door-to-door surveys have found that 1 out of 5 of the detectors, reported as working, does not work on inspection. In Oklahoma, approximately 100 persons are seriously or fatally injured each year in residential fires. More than two-thirds of them did not have a working smoke detector in the home.

No longer will general programs to distribute detectors suffice. Efforts must be concentrated on the hard-to-reach - those who will not respond to a letter in the mail or an ad in the newspaper, but are still at the highest risk of residential fire, injury, and death. Efforts must also expand to getting people to keep the batteries in the smoke detectors.

The first step in developing an effective program is to involve the community. The community owns the conditions which lead to the problems of residential fires, injuries, and deaths. The community needs to address the problems and work together to change the conditions. Because each community is different, with unique weaknesses and strengths, programs and projects should be developed that best fit the community's needs. Programs that use a variety of approaches are most likely to be successful. Public education, smoke detector and battery distribution, comprehensive legislation, effective enforcement, and modified environments are a few examples of a multi-faceted approach to a successful residential fire and injury prevention program.

Begin the prevention efforts with a success and build on that success. Success can start by using a proven strategy. This guide addresses many elements of successful programs and mainly focuses on the aspects of smoke detector and battery distribution projects.

Objective of Guide

To assist communities in implementing projects designed to increase the number of functioning smoke detectors in residential dwellings, the Oklahoma State Department of Health, Injury Prevention Service has developed the Lifesavers Guide to Smoke Detector Projects. It includes information about steps to implement a smoke detector project, examples of effective smoke detector projects, plus informational and educational materials in English and Spanish. Sample public service announcements and a mayor's proclamation are also included. This guide also includes sample forms, including a sample application, smoke detector prevalence survey, and program follow-up survey.

For more information about residential fire injuries or assistance in implementing prevention projects, call the Injury Prevention Service at 1-800-522-0204 or (405) 271-3430.
SECTION 1.

#1 **Find out who, what, where, when, and why.** Gather local information about residential fires, injuries, and deaths and smoke detector usage. Demographic information from the census can be found on the World Wide Web (State of Oklahoma/Department of Commerce) or at the local chamber of commerce. Such information can be used to identify census tracts where the percentage of the high-risk populations (such as those less than 5 or more than 65 years of age) is higher. Fire department information can be used to plot residential fires and injuries to identify high-risk neighborhoods. The Oklahoma State Department of Health, Injury Prevention Service can provide data on hospitalized and fatal residential fire-related injuries. Local hospitals, emergency medical services, and the Office of the State Fire Marshal are other resources where information can be gathered. The information should be used to target (concentrate resources in areas of greatest need), plan, and evaluate the project. Educational materials on the leading causes of fire can be specifically designed for the program using the gathered information. During the early 1990's, two very large smoke detector programs (in Cleveland and Detroit) gave away thousands of smoke detectors to residents who requested smoke detectors. However, there was no decrease in residential fire-related injuries and deaths. The people who needed the smoke detectors the most were the least likely to request them. Take the project to those in need - do not wait for them to come to you. Knowing who, what, where, why, and when directs the project to those in need.

#2 **Recruit the right people to build a coalition.** A coalition is a group of people and organizations who unite to collaboratively address and impact a specific problem. Coalitions lend themselves to resource and information sharing; greater community credibility; increased understanding of job areas in a broader context; sharing of experiences, perspectives, and theories; and broader objectives (beyond the limited objectives of a single organization). Time, people, money, and effort are four areas of resources that are brought to a coalition by its membership. Coalition members should represent a wide and diverse cross-section of the community, including members of the audience you plan to reach, representatives from organizations which already serve the targeted audience, and people with personal interest in the prevention effort. Interested and resourceful persons from groups such as media, schools, civic clubs, hospitals, target area/population leaders, fire department, health department, and volunteer groups can make a "good" project a GREAT project. Coalition members need to bring with them different perspectives, enthusiasm, and resources like time, people, money, effort, ideas, and commitment.

#3 **Make a road map.** Have a plan for where the project is, where it is going, how you are going to get there, and how to measure your progress. Devise a set of preliminary goals and objectives. What are you trying to accomplish (e.g., the prevention of residential fire-related injuries, increase the number of homes with working smoke detectors)? Who is your target audience (e.g., a certain neighborhood, older adults, young children)? Identify what has been done by others and find out what made it successful or what made it unsuccessful. Be able to determine if the project is reaching those who are in need. Be ready to modify the plan if it is ineffective.
#4  **Know the audience.** Statistics and demographics can tell a lot about a high-risk population, but data cannot tell the whole story. A safety message is received differently by different audiences. Focus group interviews and involving representatives from the targeted population in the planning process can help identify cultural factors (cooking habits), attitudes (mistrust of system), and environmental conditions (burglar bars on all exits) that could affect the effectiveness of the project. Present relevant and practical preventions, messages, and experiences to the target audience. For example, if home burglary is perceived as a greater risk than residential fire, a project to remove unsafe burglar bars from windows will not be successful without first addressing the crime issues in the area.

#5  **The hard-to-reach are hard to reach.** A variety of methods are needed to reach different sections of the community and bring about change. Utilize different ways of providing information, education, and products (batteries and alarms). The use of radio, television, newspapers, public speaking engagements, schools, civic groups are all useful, but other ways to reach the hardest to reach are needed. Tap into groups who are already reaching that audience. Examples of some established programs which already reach and serve the high-risk groups are: community action agency, meals-on-wheels, Eldercare, immunization clinics, flu clinic, WIC programs at the county health department, senior nutritional center, neighborhood associations, ethnic churches, and the Department of Human Services. Go to the audience and do not wait for them to come to you.

#6  **Never buy what you can get for free.** It is important to have a clear understanding of the needs of your smoke detector project, as well as the resources available within the community to supply those needs. Both financial and human resources will be crucial in determining your success. Use volunteers from organizations such as the Girl and Boy Scouts, 4-H, honor societies, service clubs, utilities, churches, or businesses. Individuals, businesses, or organizations can donate materials such as reams of paper, xeroxing services, money, smoke detectors, batteries, or other in-kind donations. Trained volunteers from the target group can also be effective peer educators.

#7  **Let the community know about the great things you are doing.** Display posters or flyers with information about how to obtain a smoke detector in grocery stores, laundromats, schools, daycare centers, health clinics, fast food restaurants, banks, convenience stores, etc. Explain how smoke detectors can prevent injury and save the lives of people in your community. Advertise the project, reach new audiences, and reinforce messages and behaviors through the use of multiple outlets. Use outlets such as billboards, newspaper articles, radio messages, local public service announcements, church bulletins, display booths, or use fire equipment (trucks and sirens) to draw people out of their homes. The more ways a message is presented, the more effective it will be. Tell anyone and everyone about what is being done to make your community a safer place to live.
#8 Be flexible - change to meet the needs. When planning your project, keep in mind competing community events. Either delay your plans or move your project to join the other event. Plan for when the audience will be there. For example, if distributing smoke detectors door-to-door, go on the weekend or in the early evening when more people are at home. It is important to gauge the responsiveness to the planned project. If the audience is not responding, be flexible and change to plan to reach those in need. Sometimes immediate priorities change, but be faithful to come back to the plan.

#9 Give the responsibility for prevention to the community and audience. Injuries are not accidents; most can be predicted and therefore prevented. The individual and the community own the conditions which lead to the residential fire and subsequent injury. Therefore, the individual and community have the responsibility for prevention. Respect the audience and plan projects that transfer responsibility for prevention to them. Provide the community and individuals with the awareness of residential fires and injuries, information on fire safety behaviors, and teach skills to install and maintain smoke detectors. A smoke detector can be installed by the project in a home, but the occupant has to take the responsibility of keeping the detector installed and functioning (i.e., leaving the battery in and changing the battery when needed) and practicing safety behaviors. Prevention is everybody's business.

#10 Promote change in individuals, organizations, and community. Prevention means change. To prevent a residential fire-related injury, one changes the conditions or chain of events which lead to the injury using education/behavior, engineering/technology, and legislation/enforcement. The Spectrum of Prevention, based on the work of Marshall Swift, Ph.D., has six levels of action:

- strengthening individual knowledge and skills
- promoting community education
- educating providers
- fostering coalitions and networks
- changing organizational policies
- influencing policies and legislation

These actions work together to improve the health of individuals and community by promoting permanent and effective change in individuals, organizations, and community.
SECTION 2. TYPES OF SMOKE DETECTOR DISTRIBUTION

Canvassing

With canvassing (going door-to-door), the project goes to the high-risk population. It does not wait for those at high-risk to come to the project. Canvassing can be targeted to high-risk areas by using data on residential fire-related injuries, socioeconomic factors, the rate of home fire calls per neighborhood, or percent of homes without working smoke detectors plotted by neighborhood or census tract. Canvassing can also be used if the population is widely spread across a large geographical area, especially if there is no central meeting place.

The idea is to draw people out of their homes and get them to eagerly participate in the project. Canvassing or going door-to-door consists of a fire truck slowly moving down each street in the target area, sounding its siren and announcing on a public announcement system that volunteers are distributing free smoke alarms curbside, or the volunteers can knock on the door of each residence and ask if there is a working smoke detector in the home. Canvass routes can be unannounced or preannounced in the newspaper or by other means to notify residents.

Multiple avenues of engaging the participants are possible with canvassing. With canvassing, participants can receive detectors or batteries (even have the detectors installed), informational and educational materials, verbal instructions on placement of the detector, and demonstrations on replacing the battery in the detector. With canvassing, the fire safety conditions in the home can be addressed. With installation of the detector by volunteers or professionals, the home can be properly equipped with installed and working detectors immediately.

The presence and function of smoke detectors can be determined for each home. With the canvassing method, homes without detectors can immediately receive detectors, which can be installed by project personnel at the time of the canvass. Additionally, smoke detectors already in the homes can be tested and, if not functioning, the battery or detector can be replaced.

What does it take to canvass?

* Lots of trained volunteers and fire safety professionals
* Transportation for the volunteers and supplies
* Attention-getter - like a fire engine
* Planned routes
* Smoke detectors and batteries
* Informational and educational material
* Applications
* Satchel or bags to carry supplies
* Pens and pencils
* Clipboards
* Installation equipment
* Water and snack for volunteers
* Media attention
* Planned for a time when most people are at home
* Multiple canvassing days

Collaboration

Target project to those who are in the high-risk populations. Combine your effort with existing programs which already serve the high-risk populations. Many programs have established working and beneficial relationships with the high-risk populations: those under five or over 65 years of age, low income families, minority groups, or neighborhoods. When working with established, respected programs, you have immediate access to the populations which are traditionally the hardest to reach.

There are many health-related programs which can a part of the project. Many of the same people you are trying to reach already access other means of assistance. The county health department is a valuable avenue to reaching many of those in need. The county health department has clinics for school and flu immunization, family planning, nutrition (WIC), and Eldercare services. Other programs which serve those in need include senior nutritional centers and meals-on-wheels. The Department of Human Services is another important resource.

Working with certain organizations gives the project acceptability and trust. In many areas, working with a community action agency, neighborhood associations, and ethnic churches increases the acceptance of the project and gains access to groups who sometimes do not respond to traditional projects.

What does it takes for collaboration?

* Coalition of all groups
* Training of volunteers at various sites
* Process for tracking distribution and maintaining interest
* Posters at various sites

Eldercare has free smoke alarms, batteries available

VINITA-Free smoke alarms and batteries are available at the Craig County Health Department, 115 East Delaware, Vinita, or at the Vinita Fire Department, September 18 through October 30 by a grant made possible by the Oklahoma State Department of Health, Injury Control Division; Craig County Health Department Eldercare and the Vinita Fire Department.

Applicants must be 18 years of age or older and have a Vinita address.

Free installation is available for residents inside the Vinita City Limits who are unable to install the alarms themselves. Installation is being offered by the Vinita Fire Department.

For more information contact Eldercare at 1-918-256-7531 or the Vinita Fire Department at 1-918-256-2674.
Special Events

Special community events bring people to the project. Events like a store's grand opening, the county fair, local festivals, or health fairs all bring people out into the community. Planning smoke detector distribution in conjunction with a community event is a good way of reaching a large number of people with a few volunteers or personnel within a short period of time. However, those who are at highest risk may or may not come to the event. Conversely, others who are not from the geographic area may come to the event and want to participate in the project.

Use an exhibit booth to combine the efforts of multiple organizations. A booth or exhibit to distribute smoke detectors at a special event can be attended to by volunteers from several organizations. Some programs have had success with organizations combining efforts by having adjoining exhibit booths. For example, the county health department or local SAFE KIDS coalition can provide the volunteers to do the paperwork and distribute smoke detectors at one booth. And, at the adjoining booth, the fire department or other life safety professionals can give each participant verbal instructions on how to best place the detector and demonstrate how to test the detector and change the battery.

What does it take for a special event?

* Attention-getter - fire engine and/or large signs
* Several trained volunteers and fire safety professionals
* Smoke detectors and batteries
* Informational and educational material
* Applications
* Pens and pencils
* Table and chairs
* Method for tracking smoke detectors which need to be installed
* Media attention
Meeting Places

Special means of smoke detector distribution are sometimes needed for rural, remote communities. Meeting places are another way to distribute smoke detectors when the population is decentralized or in rural, remote areas. The town hall where nearly everyone comes to pay their bills, the only grocery store in the area, or the town's gas station are all meeting places. However, it is important to remember that any method of smoke detector distribution which has the people come to the project, those at highest risk may not be those who participate or even know about the project.

Smoke detector distribution can be done in a few days or over months. A special booth or display should be used in the meeting places to draw attention to the smoke detector distribution. The smoke detector project should be announced and promoted prior to actual distribution. Project personnel should draw people to the project and actively solicit participation. Smoke detector installation should be offered to those who need assistance.

Meeting places can include schools. Many times smoke detectors are distributed in conjunction with classroom presentations, especially in elementary schools. Schools usually welcome fire prevention programs and are willing to participate in a smoke detector program.

What does it take for a meeting place project?

* Attention-getter - large signs or displays
* Trained volunteers and fire safety professionals
* Smoke detectors and batteries
* Informational and educational material
* Applications
* Pens and pencils
* Table and chairs
* Method for tracking smoke detectors which need to be installed
* Media attention
SECTION 3. EXAMPLES OF COMMUNITY-BASED SMOKE DETECTOR DISTRIBUTION PROJECTS

The following are smoke detector projects conducted in Oklahoma during the years 1990, 1995, and 1996. Each project was designed using a community-based approach which emphasized each community's strengths and minimized its weaknesses. Smoke detectors, batteries, educational materials, and application and survey forms were provided for these projects by the Oklahoma State Department of Health, Injury Prevention Service (IPS). Community based prevention training and technical assistance was also provided IPS. The IPS smoke detector program was funded through grants from the National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

Oklahoma State Department of Health
Oklahoma City Fire Department
American Red Cross
City-County Health Department of Oklahoma County

GEOGRAPHIC LOCATION: South Oklahoma City
Oklahoma County
Central Oklahoma

TARGET POPULATION:

Oklahoma City had the highest rate of residential fire-related injury among cities with greater than 10 injuries; sixty-six injuries, including 34 deaths, occurred during this time period. Two-thirds of the injuries occurred in south Oklahoma City. Injury rates per 100 residential fires and per 100,000 population confirmed that persons in south Oklahoma City were 2-3 times more likely to be injured than persons in rest of Oklahoma City; nearly half of all injuries occurred in a small part (4 zip codes) of south Oklahoma City near the inner city. According to 1980 U.S. Census Data, characteristics of the "target area" included lower median household income and lower housing condition ratings when compared to the rest of Oklahoma City. In addition, surveillance data indicated that the leading causes of the fires in the target area were considerably different than for the rest of the state: fires caused by fireplay accounted for 67% of the injuries followed by cigarettes (15%) and heating devices (11%). Oklahoma City Fire Department data suggested prevalence rates of smoke alarms were lower in the target area than in the rest of Oklahoma City (though the true prevalence of alarms was unknown).

ACTIVITIES:

Four methods were used to solicit participation (one in each of the 4 zip codes) into the project. The first zip code (73108) utilized the canvassing method of distribution. "Canvassing" consisted of a fire truck slowly moving down each street in the zip code, sounding its siren, and announcing on a public announcement system that volunteers were distributing free smoke alarms curbside. In the additional three zip codes, a flyer announcing free smoke alarms were
available at 7 different fire stations on 21 different days
was distributed. In one zip code (73119) the flyer was
mailed to all residents. In another zip code (73109) the
flyer was placed only in public places, and in the final zip
code (73129), volunteers placed the flyer in residents' 
doors. These methods required the residents to travel to a
fire department or call the Red Cross to obtain an alarm.
Installation was offered to all participants. All participants
received with the detector, informational and educational
materials about the leading causes of house fires resulting
in injury and how to prevent the causes of fires; additionally, material described the placement
and maintenance of detectors, emergency notification (9-1-1), and escape plans. Every
participant also received verbal instruction on placement of the detector and demonstration on
replacing the battery in the detector. Additionally, age-appropriate educational material was
distributed to all elementary schools in the target area and Spanish material was distributed to the
Hispanic churches in the area. Nearly 30 private, civic, and government organizations assisted
with the project, including hundreds of volunteers who contributed approximately 1,585 hours
toward notifying potential participants, developing delivering informational and educational
messages, and distributing smoke detectors.

EVALUATION:

Methods of Participant Solicitation and Alarm Distribution
To evaluate the different methods of soliciting participation and distributing alarms, the
prevalence of smoke alarms in the target area was estimated by conducting an on-site random
household survey prior to the smoke alarm giveaway. The targeted household survey revealed
that 66% (range 54%-71% in the 4 zip codes) of residents in the target area claimed to have a
functioning smoke alarm; however, when smoke alarms (whose owners had claimed were
currently working) were inspected, only 80% (597/749) were actually functioning. The reasons
for alarm malfunction included: 69% of alarms needed a battery; 16% of alarms needed to be
installed; 15% of alarms needed to be replaced. Overall, we estimate that only 50% of the houses
in the target area had working smoke alarms. By applying the prevalence of smoke alarms in
each zip code to the total number of homes, we were able to estimate the number of homes in
need of a smoke alarm in each zip code. These estimates were used to evaluate methods to solicit
participation into the project.

Evaluation of Functioning Status of Smoke Alarms
To determine if alarms were installed and maintained properly, uniformed firefighters contacted
a random sample of 19 percent (1049) of the first 5669 homes that received an alarm three
months after the program began. At 12 and 48 months, uniformed firefighters contacted a 68
percent (6364 homes) and an 8 percent (749 homes) random sample, respectively, of the 9291
total homes who had received an alarm in 1990. The two surveys conducted during the first year
post-intervention revealed alarms were properly installed and functioning in over 50 percent of
participant homes inspected (Table 1); during the four years post-intervention, the proportion of
home occupants who had removed the alarm battery or who had moved and taken the alarm with
them rose substantially.
Table 2. Inspection Results 48 Months: Alarm Installation and Functional Status
LifeSavers, Oklahoma City, 1990-1994

<table>
<thead>
<tr>
<th></th>
<th>3 MONTHS</th>
<th>12 MONTHS</th>
<th>48 MONTHS</th>
<th>ALARM STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alarm properly installed and functioning</td>
<td>61%</td>
<td>51%</td>
<td>45%</td>
<td></td>
</tr>
<tr>
<td>Alarm not yet installed</td>
<td>20%</td>
<td>5%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Alarm improperly installed</td>
<td>4%</td>
<td>2%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>Alarm did not function</td>
<td>1%</td>
<td>1%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Battery did not function</td>
<td>1%</td>
<td>4%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Removed the batteries</td>
<td>2%</td>
<td>10%</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>No longer had the alarm</td>
<td>7%</td>
<td>14%</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Moved and taken the alarm with them</td>
<td>4%</td>
<td>11%</td>
<td>15%</td>
<td></td>
</tr>
</tbody>
</table>

**FINAL EVALUATION OF MORBIDITY AND MORTALITY:**

Final analysis of the effects of the project on reducing morbidity and mortality have been calculated for the 48 months following the intervention. The injury rate per 100 residential fires and per 100,000 population were calculated for the target area as well as the rest of Oklahoma City for the time period September 1987 (when burn surveillance began) until April 30, 1990 (when the intervention was implemented) and again for the time period May 1, 1990 until April 30, 1994. A significant decrease (73%) of the rate of injury per 100 fires was seen in the target area compared to a 30% increase in the injury rate in the rest of Oklahoma City. In addition, the rate per population decreased 80% in the target population while the rate in the rest of Oklahoma City increased 7%. In fact, it is calculated at least 39 injuries and deaths have been prevented in this area. We will be following this population for the next 3-5 years to measure if the success will be sustained. Preliminary cost-benefit analysis suggest a cost-benefit ratio of the program of 1:20; that is, for every $1 spent on the program, $20 was saved in medical costs and lives saved.

**LESSONS LEARNED AND RECOMMENDATIONS:**

The canvassing method for soliciting participation resulted in a significantly greater number of smoke alarms being distributed to homes in need (Figure 1). In the initial phase of the project (May 1990), nearly 80% of the calculated number of homes in need received alarms when the canvassing method was used. One-third of the total homes "canvassed" received an alarm. Less than one-fifth (20%) of homes in need in the other three zip codes received smoke alarms and 5% or less of the total homes in the zip codes where we did not canvass received alarms. Based on these results, all four zip codes were ultimately canvassed and over 10,000 smoke alarms were distributed by November 1990. Throughout the 4 zip codes, approximately 80% of the homes in need received alarms and approximately 30% of the total homes in the 4 zip codes received alarms.
Program representatives only entered a home to install a detector or conduct a survey if an adult (over 18 years of age) was present. If an adult was not present, an appointment was made to return at a time when an adult was present. A smoke detector application form was completed for each home which received a detector. The application form contained a liability release statement and agreement to participate in follow-up surveys. The form had to be signed by an adult who resided at the address listed on the application.

ANECDOTES:

The intervention was a joint project of the Oklahoma State Department of Health, City-County Health Department of Oklahoma County, Oklahoma City Fire Department, American Red Cross-Oklahoma County Chapter, Baptist Burn Center, Children's Hospital of Oklahoma, Kiwanis and Boy Scouts of America. Additional contributors and volunteers included: Oklahoma City Fire Fighters Ladies' Auxiliary, Retired Fire Fighters, South Community Hospital, Mt. Saint Mary's Keywanets, Bishop McGuiness High School, U.S. Grant High School Honor Society, Capitol Hill Honor Society, Explorer Scouts, Department of Corrections, Oklahoma Natural Gas, Oklahoma Gas & Electric, Telephone Pioneers of America, St. James Catholic Church youth group and numerous individuals.
Altus Fire Department  
Jackson County Health Department

**GEOGRAPHIC LOCATION:**  
Altus  
Jackson County  
Southwest Oklahoma

**TARGET POPULATION:**  
The project primarily targeted residents of Altus, the county seat of Jackson County; 76% (21,910/28,764) of Jackson County’s population reside in Altus.

**ACTIVITIES:**

Altus used two principal methods to distribute smoke detectors: site distribution and special events. The site distribution method utilized a variety of sites in Altus where individuals could go and complete an application to have a detector installed in their home by the Altus Fire Department. The Altus Fire Department wanted to install all of the smoke detectors which were distributed; therefore, smoke detector applications were completed at the sites and special events, taken to the fire department, and firefighters would go to the homes to install the detectors. There were 11 distribution sites in Altus which represented a wide segment of the Altus community. The fire department was the primary distribution site; other sites were: Jackson County Health Department, Altus Chamber of Commerce, Jackson County Memorial Hospital (admissions dept.), Altus Surgical and Medical Center (includes eight physicians' offices), Jackson County Department of Human Services, Southwest Oklahoma Community Action, Altus Senior Citizens Center, Quality Lifestyles Home Care, Health Watch Home Care, and Wal-Mart. A volunteer (usually an employee at the site) was available during normal business hours to complete application forms for those who needed a smoke detector. Signs posted at each site identified the site as a smoke detector distribution point. Altus had a number of special events where individuals who needed a smoke detector could complete an application. Wal-Mart had a grand opening of a new superstore. A booth was set up inside the store and more than 500 smoke detector applications were completed in one day; the booth remained open for several days. A booth was also set up for a few days at a local supermarket which serves a high volume of people. At each special event, several fire trucks with large banners reading "FREE SMOKE ALARMS" were parked in front of the stores to attract attention and interest. Firefighters and volunteers from local churches and Altus Air Force Base manned the booths. Booths were also set up at the Jackson County Fair and several community festivals in Altus.

During the project, a 49-year old woman died from smoke inhalation in a house fire in the central part of Altus; she did not have a smoke detector. After newspaper reports of the fire death, citizens began to flood the distribution sites. The Altus Fire Department and City Council decided to go house-to-house in the lower socioeconomic areas offering smoke detectors to those who needed them. Batteries were also provided to those who already had functional smoke detectors.  

The project also received excellent support from the local media.
detectors. Some detectors were given to smaller volunteer fire departments in Jackson County. In all, 1,665 smoke detectors were distributed through the Altus project.

In addition to the excellent support from the community, the project also received excellent support from the local media. The Altus newspaper published several stories on the project. The radio station in Altus ran PSAs several times each day which was a great benefit in publicizing the project. During the fall, a series of two billboards were placed at strategic locations in Altus to emphasis the importance of smoke detectors.

**EVALUATION:**

Before the project started, several of Altus' off-duty, uniformed firefighters conducted a random household survey to assess the prevalence of functioning smoke detectors within Altus' city limits. The sample size was 128 homes, of which 12% were vacant, 2% were unable to be contacted in three attempts, and 86% participated in the survey. After the end of the project, a random household survey to assess the percentage of homes with installed and working smoke detectors was conducted. The post-project sample size was 128 homes, of which 3% were vacant or inaccessible, 6% were unable to be contacted in three attempts, 4% refused participation, and 87% participated in the survey.

<table>
<thead>
<tr>
<th>PRE-project</th>
<th>Of households which participated:</th>
<th>POST-project</th>
</tr>
</thead>
<tbody>
<tr>
<td>30%</td>
<td>Did not have a smoke detector</td>
<td>3%</td>
</tr>
<tr>
<td>3%</td>
<td>Reported having a functioning smoke detector, but refused inspection</td>
<td>2%</td>
</tr>
<tr>
<td>19%</td>
<td>Reported having a functioning smoke detector which did not work when tested</td>
<td>33%</td>
</tr>
<tr>
<td>48%</td>
<td>Had a functioning smoke detector</td>
<td>62%</td>
</tr>
</tbody>
</table>

Random sample surveys to determine the installation and functional status of the smoke detectors distributed through the program were conducted 10 months and 16 months after the end of the project.

<table>
<thead>
<tr>
<th>June 1996</th>
<th>Of households which participated:</th>
<th>February 1997</th>
</tr>
</thead>
<tbody>
<tr>
<td>76%</td>
<td>Alarm installed and working</td>
<td>73%</td>
</tr>
<tr>
<td>9%</td>
<td>Alarm or battery not working</td>
<td>7%</td>
</tr>
<tr>
<td>11%</td>
<td>Battery removed</td>
<td>16%</td>
</tr>
<tr>
<td>3%</td>
<td>No longer had the alarm</td>
<td>3%</td>
</tr>
<tr>
<td>1%</td>
<td>Alarm not installed</td>
<td>1%</td>
</tr>
<tr>
<td>0%</td>
<td>Inspection refused</td>
<td>0%</td>
</tr>
</tbody>
</table>
During the February survey, 32% of the surveyed stated that the alarm provided an early warning of smoke or burning material. Of those who reported an early warning, 85% reported it was cooking-related, followed by furnace (6%), smoking (3%), garage exhaust (1%), and unknown source (4%). Only one person called the fire department.

LESSONS LEARNED AND RECOMMENDATIONS:

A solid working partnership developed among the county health department, fire department, and community agencies. The community of Altus fully supported the smoke detector project. It is absolutely necessary to gain the support of the community before beginning such a project. An early task must be to gain the support of local government, the business community, civic organizations, social service agencies, schools, the medical community, and the media. Without the involvement of these groups, the project cannot be fully successful. It is extremely beneficial to identify at least one person in each of these groups that has an interest and commitment to the project and its goals.

Distribution at special events is an effective method to get a large number of smoke detectors to those who need them in a short period of time. High traffic sites work well for the rapid distribution of smoke detectors.

Canvassing house-to-house is an effective method to get smoke detectors into the homes of those individuals who may not be reached by other methods. This is particularly successful in low-income areas where the prevalence of smoke detectors is usually low.

The Fire Chief in Altus made a decision at the start of the project that the firefighters would install all of the smoke detectors distributed in Altus. In reviewing this decision, it is clear that this is a very difficult and time-consuming task. It is probably best to permit those who feel they can install the smoke detector to do it, and save the firefighter for those households which need installation.

ANECDOTES:

The house of an Altus family burned, but the family was saved from serious injury because of the smoke detector installed in their home through the project.
Bentley Volunteer Fire Department

GEOGRAPHIC LOCATION: Bentley Fire District
Atoka County
5 square miles fire district
unincorporated community
Southeast Oklahoma

TARGET POPULATION: Elderly, low income, and minority (Native American)

ACTIVITIES:

Activities included safety programs and giving away smoke detectors at the three churches and community center in the area. Two of the churches are Native American churches. Smoke detectors were also distributed at a community meeting. The local paper (Atoka) ran an article about the smoke detectors for the community. A pre-survey was done by going door-to-door and by telephone. We kept the addresses of people who needed smoke detectors that we identified during the pre-survey. We distributed the detectors door-to-door and contacted others by telephone. The Bentley Fire Department is volunteer and consists of individuals who did most of the work on their time off from their regular jobs.

We also went door-to-door and telephoned people

Seventy-five smoke detectors were distributed. The fire department installed approximately two-thirds of the detectors. Of the approximate 300 homes in the fire district, 25% received a detector through this program.
Canute Volunteer Fire Department

GEOGRAPHIC LOCATION: Canute
Washita County
Western Oklahoma

TARGET POPULATION: Rural area residents in Canute fire protection district, approximately 211 households. 71% of the town is low/moderate income.

ACTIVITIES:

Three-fourths of the residents come to city hall once a month to pay utility bills and a pre-intervention survey was done there. The intervention consisted of a public awareness campaign that began in April 1995. It consisted of flyers placed in the most visible areas of Canute, such as City Hall, the Post Office, public schools, and area businesses. City Hall also initiated a telephone campaign which informed residents of the availability of the detectors and batteries. Seventy-five smoke detectors were distributed and 25 9-volt batteries were installed in residents' detectors to bring them to working order.
Cotton County Health Department

GEOGRAPHIC LOCATION: Walters
Cotton County
South Central Oklahoma

TARGET POPULATION: Cotton county residents (6,651), especially families with children less than 5 years of age, persons age 65 and over (20% of total population), and households below poverty level (22%).

ACTIVITIES:

Information on the times and dates of distribution and educational materials were taken to the county schools, including Head Start. Numerous articles on fire safety and statistics were in the local paper. Dates, times, and places smoke detectors would be given away were also printed. A coalition was formed with the local police and fire departments, OSU extension office, National Guard, and other agencies to assist with activities. Smoke detectors were available at the Cotton County Health Department. 440 smoke detectors were distributed along with educational materials.

There were several events at which smoke detectors were distributed. At the Health Fair, which targeted person over 60, 61 detectors were distributed. Many volunteers assisted at the Health Fair. At the Flu immunization clinic, which targeted persons with chronic health problems and those on medicare, 39 smoke detectors were distributed. At the local health department immunization and WIC clinics, which targeted children under 5 and low income families, 195 families received detectors. At the Randlett kindergarten enrollment, which targeted children age 4 and 5, 10 detectors were distributed. At the Head Start enrollment, which targeted low income children age 3 and 4, nine detectors were distributed. At the Walters kindergarten enrollment, which targeted children age 4, 5, and 6, 11 received smoke detectors. At the Indian commodity pick-up, 75 persons received smoke detectors. During the Wheat Harvest Festival, assisted by a coalition, 30 smoke detectors were distributed by 5 volunteers.

LESSONS LEARNED AND RECOMMENDATIONS:

Many of the same persons attended the kindergarten and head start enrollments as were served by the county health department immunization and WIC clinics.

In some cases, it was difficult to convince the elderly that they needed a smoke detector. Their main objection was the noise and nuisance when the alarms were set off by mistake.

Some people were careless about replacing batteries when they were weak. They just disconnected the battery and left it.
Town of Hardesty
Hardesty Volunteer Fire Department

GEOGRAPHIC LOCATION: Hardesty
Texas County
Oklahoma Panhandle

TARGET POPULATION: 350 residents from 5 to 90 years of age. 95% of the population targeted is white, while 5% is Hispanic. The targeted population which is at a lower income is 8%, with a majority of the rest of the population under $35,000 per year per household.

ACTIVITIES:

There were three main elements involved with this project: 1) formation of groups, 2) public awareness, and 3) passing an ordinance mandating that each household resident would have a smoke detector.

The formation of the groups consisted of volunteer members from the Hardesty Fire Department, Hardesty Homemakers, city government, and Chamber of Commerce. Each group was given a specific task involved in fulfilling the project.

The group in charge of the public awareness were responsible for: 1) posting bulletins and posters all around town and throughout different areas of the community; 2) educating the elementary and high school students on the fundamentals of what to do in the case of a fire and how to check their smoke detectors to insure they were always working; and 3) distributing the actual smoke detectors, putting them up if requested, and informing each resident of how to check to insure their smoke detector was working. Each resident was also given informative pamphlets on what to do in case of a fire.

The town board passed an ordinance making it mandatory for all households to have a smoke detector in the home.

One hundred-sixty detectors were distributed through this program.

LESSONS LEARNED AND RECOMMENDATIONS:

During this project we realized how many people did not have any smoke detectors, or even understand the new 911 system.
Perry Fire Department

GEOGRAPHIC LOCATION: Perry
Noble County
Northern Oklahoma

TARGET POPULATION: The 4,978 residents of Perry; of which 91% are white, 4% black, 4% Native American, and 1% Hispanic.

ACTIVITIES:

We started the project by getting referrals from the Department of Human Services for homes with children which needed smoke detectors. We then ran ads in the newspaper announcing that the fire department had free smoke detectors and would install them in any home which needed one.

We are beginning a second phase to the project which includes taking applications for detectors to be installed at the Noble County Health Department in Perry during immunization clinics and WIC clinic. We also plan to contact home health care providers, Eldercare caseworkers, admission departments in the local hospital, and re-contact the local senior nutrition center to involve them in the identification of persons who need a smoke detector. The fire department will ask the local Wal-Mart if we can set up a booth inside the Wal-Mart to take applications for smoke detectors. The project still plans to install all of the detectors using firefighters and trained volunteers from the Perry Lions Club.

LESSONS LEARNED AND RECOMMENDATIONS:

The ads in the newspaper have not brought in the response that I thought it would. I thought that people would call the fire department to get a detector. We will have to go to the people instead of them coming to us.

We will have to go to the people instead of them coming to us.
Purcell Fire Department  
McClain County Health Department

GEOGRAPHIC LOCATION:  
Purcell  
McClain County  
Central Oklahoma

TARGET POPULATION:  
Residents of McClain County, mainly Purcell, the county seat where 21% (4,784/22,795) of the population resides.

ACTIVITIES:

There were three different methods used to distribute smoke detectors in the Purcell project: 1) site distribution, 2) special events, and 3) canvassing. The site distribution method used a variety of sites around Purcell where individuals could go and pick up a smoke detector for their home. If they needed help to install it, the fire department would come to their home and install it for them. There were 17 distribution sites available in Purcell. They represented all segments of the Purcell community. These sites included the county health department, fire department, Chamber of Commerce, local hospital, physicians’ offices, Department of Human Services, community action agency, senior citizens center, and local business. These sites were available during normal business hours and there was a volunteer available at each site to complete the application form for those who received a smoke detector. There were signs at each site identifying them as distribution points. There were a number of special events where smoke detectors were available to those who did not have them. A booth was set up at the Wal-Mart store where individuals who needed a smoke detector could obtain them. The fire department had a fire truck at the Wal-Mart to draw attention and the firefighters assisted in manning the booth. We also had volunteers from the County Home Extension clubs and the Chamber of Commerce who assisted at the booth. We also had a booth at Spencer's SuperThrift Grocery where the same procedure was followed as at Wal-Mart. There was also a booth at the McClain County Fair that was manned by the fire department and community volunteers. There was a very good response at all of the special events. The canvassing method was used to reach the areas of Purcell where there were the fewest smoke detectors. Canvassing is where firefighters and other volunteers would go door-to-door in the neighborhoods to offer smoke detectors to those who did not have them. If the residents needed help in installing the detector, the fire department would install it for them. Canvassing was done on four different days in November.
The canvass was done primarily in the southern and northeastern sections of Purcell. We also provided batteries to those people who needed them for their smoke detectors. Subway provided a free lunch to the canvassing teams. In all, 869 smoke detectors were distributed in the Purcell project.

In addition to the excellent support from the community, the project also received excellent support from the media to get the word out on the project. The Purcell newspaper ran several stories on the project to help publicize it. The hospital newsletter ran a story on the project and was a strong supporter. The radio station in Lindsay ran many PSAs which were a great help. During the fall there was a large billboard, which displayed a message about the program, located at South Green and Eel River Streets which is one of the busiest intersections in Purcell.

EVALUATION:

Before the beginning of the project, we contracted with several of Purcell's off-duty firefighters to conduct a random household survey to assess the prevalence of functioning smoke detectors within Purcell's city limits. The sample size was 113 homes, of which 1% were vacant, 5% were unable to be contacted in three attempts, 10% refused to participate, and 84% participated in the survey. The post-project sample size was 114 homes, of which 1% were vacant or inaccessible, 2% refused participation, and 97% participated in the survey.

<table>
<thead>
<tr>
<th>PRE-project</th>
<th>Of households which participated:</th>
<th>POST-project</th>
</tr>
</thead>
<tbody>
<tr>
<td>28%</td>
<td>Did not have a smoke detector</td>
<td>3%</td>
</tr>
<tr>
<td>7%</td>
<td>Reported having a functioning smoke detector, but refused inspection</td>
<td>4%</td>
</tr>
<tr>
<td>14%</td>
<td>Reported having a functioning smoke detector which did not work when tested</td>
<td>18%</td>
</tr>
<tr>
<td>51%</td>
<td>Had a functioning smoke detector</td>
<td>75%</td>
</tr>
</tbody>
</table>

A random sample survey of the installation and functional status of smoke detectors distributed by the project was undertaken at 10 months and 16 months after the project.

<table>
<thead>
<tr>
<th>June 1996*</th>
<th>Of households which participated:</th>
<th>February 1997*</th>
</tr>
</thead>
<tbody>
<tr>
<td>78%</td>
<td>Alarm installed and working</td>
<td>79%</td>
</tr>
<tr>
<td>1%</td>
<td>Alarm or battery not working</td>
<td>4%</td>
</tr>
<tr>
<td>2%</td>
<td>Battery removed</td>
<td>2%</td>
</tr>
<tr>
<td>9%</td>
<td>No longer had the alarm</td>
<td>8%</td>
</tr>
<tr>
<td>9%</td>
<td>Alarm not installed</td>
<td>3%</td>
</tr>
<tr>
<td>2%</td>
<td>Inspection refused</td>
<td>3%</td>
</tr>
</tbody>
</table>

*totals may not equal 100% due to rounding
During the February 1997 survey, 41% of the surveyed stated that the alarm provided an early warning of smoke or burning material. Of those who reported an early warning, 95% reported it was cooking-related, followed by heater (2.5%) and smoking (2.5%). Two persons called the fire department.

LESSONS LEARNED AND RECOMMENDATIONS:

This was a true partnership between the county health department, fire department, and community agencies. The community of Purcell bought into the smoke detector project as their own. It is absolutely necessary to gain the support of the community before beginning such a project. An early task must be to gain the support of local government, the business community, civic organizations, social service agencies, schools, the medical community, and the media. Without the involvement of these groups the project cannot be fully successful. It is extremely beneficial to identify at least one person in each of these groups that has an interest and commitment to the project and its goals.

Distribution at the grocery store and at Wal-Mart was an effective method to get a large number of smoke detectors to those who need them in a short period of time.

Canvassing reached those who were not reached by other methods. This is particularly successful in low-income areas where the prevalence of smoke detectors is usually low.

Installation was offered by the Purcell Fire Department who installed 24% of the detectors distributed in the city limits.
Sayre Fire Department

GEOGRAPHIC LOCATION: Sayre
Beckham County
Western Oklahoma

TARGET POPULATION: The city of Sayre (2,881) plus a surrounding rural, remote area. Specific targets within these areas were children under the age of 5 and persons are 65 or older.

ACTIVITIES:

The intervention consisted of five elements: 1) formation of a committee; 2) a public awareness and education campaign; 3) a school-based education campaign; 4) training and door-to-door checking and installation of smoke alarms and/or batteries; and 5) follow-up and evaluation.

The committee was composed of the local fire chief, representatives from the local county health department, civic clubs, business community, and city government. Spokesperson for the group was Miss Sayre, a college student, whose platform was fire prevention.

The public information campaign began even before the grant was received and continued until the distribution of the smoke detectors was well underway. This consisted of numerous newspaper articles, pictures, local TV announcements, and an organized education program at the schools during Fire Safety Week in October.

During this week, materials were sent home with the children and a movie was shown. Demonstrations were given to the older children teaching them how to check smoke detectors for operability. This resulted in many parents calling to say that their children had determined that their smoke alarm was not operating. Surveys were sent to parents via the children to locate target homes.

Phone surveys were made to the elderly to alert them of the project and to the fact that firefighters and volunteers would be coming to install alarms and/or batteries.

As a result of these efforts 320 alarms and 73 extra batteries have been placed in the target area. Door-to-door inspection is still occurring in the outlying areas of the city.

Through a battery drive held in cooperation with the school, 75 extra batteries were donated and available for use.
Approximately 18 firefighters, 5 spouses, and 14 volunteers from civic clubs and the community were involved in the installation which entailed approximately 740 hours with distribution.

At the beginning of the door-to-door canvass, firefighters demonstrated to all volunteers the correct procedure and location for installation of a smoke detector and for checking batteries.

LESSONS LEARNED AND RECOMMENDATIONS:

The most surprising lesson for those involved in the Project S.A.F.E. (smoke alarm for everyone) is that assumptions should not be made that medium and high-income families will have smoke alarms in their homes. Low-income families were originally the target group, but it was learned that a great many upper income residences did not have alarms simply from neglect.

Although expected as a result of the information from the survey, even a larger number of senior citizens than anticipated were without alarms.

Project members were pleased at the good relations and public appreciation which were evidenced. Many citizens called to say how they appreciated the project or to see when the volunteers would be by their homes.

Business people and the community continue to be supportive and willing to donate extra batteries or volunteers for the program.

One fire call involved a house in which the resident had gone off and left something cooking. The neighbor could hear the smoke alarm and alerted the fire department. A serious fire was averted.
Cherokee County Health Department

GEOGRAPHIC LOCATION: Tahlequah
Cherokee County
Northeast Oklahoma

TARGET POPULATION: Tahlequah residents living in older mobile homes and wood-frame homes.

ACTIVITIES:

The Cherokee County Health Department had 100 smoke detectors to distribute. After doing a survey in the W.I.C. clinic and driving around Tahlequah making observations, we decided to distribute the smoke detectors in identified fire hazard areas in Tahlequah. These areas consisted of older mobile homes and wood-frame houses.

On October 4th, 4 people from the county health department volunteered to help with the distribution. One team started on the north end of town, and one team started at the south end. We distributed 44 smoke detectors and approached at least 140 houses. On October 19th, one team went again and covered new areas. We distributed 39 detectors and contacted approximately 80 houses. We distributed 8 detectors to people who live in high fire risk dwellings on October 23rd, and two more were picked up at the office.

This program protected 73 children under the age of five years, and 24 people over the age of 64 years. We have no way of knowing exactly how many people were covered between those ages, but the number was substantial. One house had five people living there, but no one fell into the categories listed on the application form.

I believe the program was very successful in accomplishing the task for which it was designed, that is, to protect at-risk people from fire.

I do not believe we could have reached the population we did without targeting and going door-to-door.

LESSONS LEARNED AND RECOMMENDATIONS:

Smoke detector inventory control is difficult to maintain.
Woodward County Fire Departments

GEOGRAPHIC LOCATION: Woodward County
Northwest Oklahoma

TARGET POPULATION: Woodward County includes residents of Woodward, Mooreland, Mutual, Fort Supply, Sharon, and all rural, remote areas of Woodward County. Special target groups were the 5% of the population who are Hispanic and areas of towns with the oldest homes.

ACTIVITIES:

The intervention consisted of the formation of a coalition and a public awareness campaign. The coalition consisted of representatives from the 4-H club, Bank IV, Red Cross, OSU Extension Center, business professionals, civic organizations, Highway Patrol, county health department, and news media.

The public awareness campaign consisted of 500 flyers produced and distributed by the 4-H. Bulletins were aired on the local TV ad channel, including TV PSAs, and radio PSAs. The local TV station gave continuous updates on the canvass and served as a reminder to citizens to check their detector. Three thousand elementary children were given flyers to take home during Fire Prevention Week. These flyers stated that the fire department was offering free home safety checks and asking parents if they were aware of the free smoke detectors being offered through the Fire Prevention Program. Five hundred kids, who were in the Learn Not To Burn program, were repeatedly given reminders to give to their parents reminding them of the free smoke detectors available. Parents were also reminded of the free smoke detectors through the 400 preschool children involved with the Kid Safe program.

Throughout the year one-hour classes were provided for the canvassing teams, as needed. Some classes has only one or two teams attend while other classes had 30 people attend. These classes covered paperwork, identifying smoke detectors, and proper installation and testing of detectors, as well as the tools that may be needed. Installers were required to provide their own tools for the actual canvassing.

We had over 864 hours of time donated by 144 volunteers. Nearly 600 detectors have been distributed through the program.

Our county fire chiefs purchased 100 smoke detectors to start out, plus a cordless screwdriver, pliers, and other tools totaling (including the detectors) $600. Shean's Ace Hardware donated a tool box, step stool, 9-volt batteries, smoke detectors, and batteries for the cordless screwdriver, totalling $300. Mazzios Pizza fed the 4-H installers, totalling $50. The County Fire Prevention
Program had a cookout for the installers, $50. The Mooreland Fire Department fed the canvassers, $100. There are other donations not yet calculated.

**LESSONS LEARNED AND RECOMMENDATIONS:**

Door-to-door surveys are the best to use for installing detectors and batteries as needed on the spot. This method ensures detectors are working at all homes that will allow the survey. Also, this method takes a very long time and should be done in large groups to cover the targeted area in a short amount of time. Most of our volunteers were willing to go 4 hours at a time, but very few would come back for a second day if we asked them to.

A problem that the volunteers had to overcome was properly identifying smoke, heat, and CO detectors.

The phone survey worked pretty well. Drawbacks to the phone surveys were you still had to find time when the person would be at home to have the detector installed if needed and you couldn't verify if the resident was correct with their information.

Early fall is the best time for canvasses in Woodward County. More people are home early in the evening and the weather is most favorable.

The Hispanic population was scattered. We used survey forms in both English and Spanish, provided by the Oklahoma State Department of Health. Most Hispanics filled out the English applications and survey, but requested informational materials in Spanish.

This program has led to a better tracking system for smoke detectors. The county fire chiefs will fund smoke detectors in the future. We have firefighters, who are interested and involved in the program, receiving training for the future of this program. Our fire department's image and working relationships with the school systems, businesses, and civic groups as well as other government agencies have improved. We have a better coalition for future projects as a result of this program.

The program grew to a neighboring town across the county line and the local town (Vici) is following the same guidelines as the rest of the community.

I am working with other educators, and the OSDH, across the State to develop their own community coalitions. This is being done through Oklahoma Community Based Fire and Burn Prevention Alliance (OCBA).

This program will continue as is with evaluations scheduled later this summer to further determine how to improve it.

One life was saved in September 1995 in the town of Fort Supply. The story made the local newspaper and the local TV station did report on it.
## SECTION 4. MATERIALS

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## SMOKE DETECTOR PREVALENCE SURVEY

**Inspector:** ____________________  

<table>
<thead>
<tr>
<th>#</th>
<th>Question</th>
<th>Answer Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>How many people live in your home?</td>
<td>____</td>
</tr>
<tr>
<td>2</td>
<td>How many are less than 5 years of age?</td>
<td>____</td>
</tr>
<tr>
<td>3</td>
<td>How many are over 64 years of age?</td>
<td>____</td>
</tr>
<tr>
<td>4</td>
<td>What is the race/ethnicity of the respondent?</td>
<td>WHITE BLACK NATIVE AMERICAN OTHER</td>
</tr>
<tr>
<td>5</td>
<td>Do you own or rent your home?</td>
<td>OWN RENT</td>
</tr>
<tr>
<td>6</td>
<td>What type of home?</td>
<td>HOUSE APARTMENT DUPLEX MOBILE HOME OTHER</td>
</tr>
<tr>
<td>7</td>
<td>How many habitable levels?</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>8</td>
<td>Do you live within the city/town limits?</td>
<td>YES NO</td>
</tr>
<tr>
<td>9</td>
<td>Do you have a home telephone?</td>
<td>YES NO</td>
</tr>
<tr>
<td>10</td>
<td>How many working smoke detectors?</td>
<td>0 1 2 3 4 5 &gt;5</td>
</tr>
<tr>
<td>11</td>
<td>On inspection, alarm was installed &amp; working?</td>
<td>□YES □NO □INSPECTION REFUSED</td>
</tr>
<tr>
<td>12</td>
<td>Action taken:</td>
<td>□NONE □ALARM INSTALLED □BATTERY REPLACED □ALARM REPLACED</td>
</tr>
<tr>
<td>13</td>
<td>STATUS:</td>
<td>□COMPLETED □VACANT □UNABLE TO CONTACT □REFUSED</td>
</tr>
</tbody>
</table>

---

1. How many people live in your home? ____  
2. How many are less than 5 years of age? ____  
3. How many are over 64 years of age? ____  
4. What is the race/ethnicity of the respondent? WHITE BLACK NATIVE AMERICAN OTHER  
5. Do you own or rent your home? OWN RENT  
6. What type of home? HOUSE APARTMENT DUPLEX MOBILE HOME OTHER  
7. How many habitable levels? 1 2 3 4 5  
8. Do you live within the city/town limits? YES NO  
9. Do you have a home telephone? YES NO  
10. How many working smoke detectors? 0 1 2 3 4 5 >5  
11. On inspection, alarm was installed & working? □YES □NO □INSPECTION REFUSED  
12. Action taken: □NONE □ALARM INSTALLED □BATTERY REPLACED □ALARM REPLACED  
13. STATUS: □COMPLETED □VACANT □UNABLE TO CONTACT □REFUSED
Smoke Alarm Application

Please print all information clearly.

Type of Alarm Installation Status
☐ Lithium ☐ Installed
☐ 9-volt (Alkaline) ☐ Not Installed

Name: ___________________________ Home Phone: ___________________________

Address: ___________________________ City: ___________ ZIP: ___________

1. Do you own or rent your home? ☐ Own ☐ Rent

2. What type of home? ☐ House ☐ Apartment ☐ Duplex ☐ Mobile home ☐ Other (specify) __________

3. How many levels with living areas are in your home? ☐ 1 ☐ 2 ☐ 3 or more

4. How many people who live in your home are under 5 years old? ☐ ☐ Over 64 years old? ☐

5. How many smokers live in the home? ☐ ☐

6. Do you already have a working smoke alarm in your home? ☐ Yes ☐ No

7. How did you find out about this giveaway?
   ☐ door to door giveaway
   ☐ call to fire department
   ☐ prevalence survey
   ☐ follow-up survey
   ☐ other (specify) ______________

8. Number of smoke alarms given: ☐

Agreement/Release of Liability
I will not hold the State of Oklahoma, political subsidiaries of the State of Oklahoma, or employees thereof liable for injury to persons arising out of the installation, use, malfunction, or removal of the smoke alarm. Further, I agree that I will not bring any claim against sponsors, employees or volunteers, and hold them harmless and release them from all claims, actions, damages, and liability resulting from the use or malfunction of this smoke alarm. Further, I understand that the smoke alarm provided by this program is done for public safety and the sponsors or installers are not dealers of this type of goods, and make no warranty on the smoke alarm. I agree to allow program representatives to inspect and verify the function of the alarm at a later date, if they desire.

Signed ___________________________ Date __ / __ / ______

Program Representative ___________________________ Title ___________________________

Installation Application

Installed by ___________________________ Representing ___________________________

FOR OSDH: ☐ SOKCTAR ☐ STATION 27 ☐ ARDMORE ☐ OTHER, specify
☐ NOKCTAR ☐ TULTAR ☐ MUSKOGEE
☐ RESTOKC ☐ RESTTUL ☐ PONCA CITY

Form Number (Office Only) ___________ ODH #250 Rev. 9-7-01

LifeSavers II: A Guide to Smoke Detector Projects 31
Smoke Alarms are the most effective way to prevent death and injury from house fires.

- Some alarms have a red light on the cover that will flash periodically when the alarm is working.
- Cooking or heavy cigarette smoke may cause the alarm to go off. Follow the directions provided with your alarm to temporarily silence the alarm. Never remove the battery from an alarm.
- If the alarm goes off and no smoke or fire is found, move it to another location. Rooms that are damp and dusty, or cooking areas, often cause false alarms.
- If your alarm goes off and you smell smoke, keep on sounding, exit your home quickly and call 911 or your local fire department from a neighbor's house.

LifeSavers II: A Guide to Smoke Detector Projects
Where to put your smoke alarm

- Place the alarm last outside the sleeping areas, such as the hallway outside the bedrooms.
- The best place is on the ceiling at least 6 inches from any corner. Your alarm can be placed on the wall or ceiling at least 2 feet away from any corner.
- If you live in a mobile home, place the alarm on an inside wall about 6 inches from the ceiling and at least 2 feet away from any corner.
- Avoid placing your alarm near air vents, doorways, bathrooms, garages or other areas that may be dusty or humid.

How to test your smoke alarm

- Test your alarm monthly by pressing the center of the alarm cover for at least 5 seconds. The alarm will sound to make sure it is working.
- If the alarm is not on the ceiling, use a broom handle to press the cover to test.
- Remove dust from the alarm cover every six months.

Plan ahead

- Everyone should know two ways out of every room.
- If your home has two stories, find a safe way on the ground floor.
- If your home has two stories, use a safe way on the ground floor.
- In a house fire, climb out the window and get to the ground floor. If you cannot get to the window, use a broom to make a way out. If you can, call 911 or the local fire department from a neighbor's house.
- If your clothes catch fire, stop, drop and roll over and over. This will put out the flames.
- Get out and stay out of the home. Do not run, quickly drop to the ground. Roll over and over. Call 911 or do not open it. Use the other way out.
- If your clothes catch fire, stop, drop and roll over and over. This will put out the flames.

Know what to do in case of a fire

- In only 3 1/2 minutes, the heat from a house fire can reach over 1100°F. People die when the temperature is over 212°F.
- The heat from a fire can spread to every room in a home. In a matter of minutes, the temperature from a fire can over 300°F in rooms that are not even on fire.
- Even with all the lights on in your home, the smoke from a house fire can be so thick that you can only see a few feet at a time. Even with all the lights on, you can only see a few feet at a time.
- Fire produces smoke and gases. These products cause you to be very weak. You can smell these gases and make you feel dizzy and gasp for air and make you feel dizzy.
- Fire produces smoke and gases. These products cause you to be very weak. You can smell these gases and make you feel dizzy and gasp for air and make you feel dizzy.
- Fire products cause you to be very weak. You can smell these gases and make you feel dizzy and gasp for air and make you feel dizzy.
- Did you know...

- Fire products cause you to be very weak. You can smell these gases and make you feel dizzy and gasp for air and make you feel dizzy.

LifeSavers II: A Guide to Smoke Detector Projects 33
House Fires

Causes & Prevention

Smoke Alarms
Smoke alarms are the most effective way to prevent death and injury from house fires.

Test your alarm monthly by following the directions provided with your smoke alarm.
Avisador de Fuego Aplicación

Por favor de imprimir la información.

Nombre ___________________________ Teléfono __________________________

Discurso __________________________ Ciudad __________________________

Condado ___________________________ Zumbido _________________________

1. ¿Usted poseer o renta su casa? ___________________________

2. ¿Qué tipo de casa es? ___________________________

3. ¿Qué tantas personas viven en casa que son menor de 5 años de edad? ____________
   mas de 64 años? ____________

4. ¿Usted vive en la ciudad? ___________________________

5. ¿Usted tiene un Avisador de Fuego en su cases que trabaja? ____________

6. ¿Cómo recibió el Avisador de Fuego? ___________________________
   - Premio ____________________
   - Casa de Bomberos _______________
   - Clínica _________________________
   - Otra localización __________________
   - Hospital _______________________

ACUERDO / KUBERTAD DE RESPONSABILIDAD

Yo no era culpable a los empleados o representantes de el estado de OKLAHOMA responsable
por la instalación, uso, acción de quitar el Avisador de Fuego. Adicional, yo asentir que no voy a
reclamar contra el patrocinador, empleados o voluntarios y asentir y libertar los de reclamar,
acciones, danos, responsabilidad resultado de el uso de el avisador de fuego. Y yo entiendo que
el Avisador de Fuego que esta organización me va regalar es para la seguridad del publico y los
patrocinadores o los que instalan no son comerciante de este tipo de Avisador de Fuego. Yo les
doy permiso a los representantes que van a examinar el Avisador de Fuego cuando desean.

Firma ___________________________ Fecha ___________________________

Representante ______________________ Titulo __________________________

APLICACIÓN PARA INSTALACIÓN

¿Cuándo poder ir a casa para instalar el Avisador de Fuego? ___________________________

Fecha de instalar su Avisador de Fuego ____________ Funciona ____________
   - No funciona __________________________

Instalado por ___________________________ Representante ____________
Lo que puede hacer para prevenir incendios en su hogar

Sabias que . . .

- En menos de 3 1/2 minutos, el calor de una lumbre de casa puede subir a 1100°F. Personas pueden morir cuando las temperaturas suben arriba de 212°F.
- El calor de la lumbre puede llegar a todos los cuartos en menos de unos cuantos minutos. Las temperaturas pueden subir arriba de 300°F en cuartos que no esten incendiados. El calor esta tan alto que fundir los plasticos y puede causar muerte a los que ocupan los cuartos.
- Aun cuando las luces esten incendiadas en su casa el humo esta tan grueso que su casa se oscurece en menos de 4 minutos.
- Lumbre presupenden gases y humo peligroso. Estos gases pueden causar que se sienta confundido, debil, y con mucho sueño. Estos gases no tiene olor. Si la familia esta dormida el olor de los gases no los desperta pero el AVISADOR DE FUEGO si.

Simulacros (practicas) de planes de escape en caso de incendio

- Planifique y practique rutas de escape de incendios y asegurese de que todos sepan dos maneras de salir de cada habitacion.
- Use una escalera en forma de cadena para escapar de los pisos altos y practique como usarla.
- Ensene a los niños que los bomberos son sus amigos y que los ayudaran si ocurre un incendio.
- Designe un lugar fuera del hogar para reunirse con su familia en caso de incendio.
- Sepa como llamar para pedir ayuda de emergencia.

Que hacer en caso de incendio

- Arrastrese (gatee) debajo del humo.
- Toque las puertas cerradas con la parte posterior de su mano. Si una puerta esta caliente, use otra salida. Si no esta caliente, abra la puerta lentamente y mire si hay humo o fuego.
- Reunase con su familiar, fuera del hogar, en el lugar previamente designado; y despues llame para pedir ayuda.
- Nunca regrese a una casa, apartamento o edificio que se esta incendiando.
- Si su ropa se coger en lumbre, estese quieto. NO CORRA!!! Pronto deje caer al suelo. Y pronto hacer rodar asta que se apagen las llamas.
- Por favor de llamar 911, o los bomberos, en casa de vecinos.
Donde estacionar su avisador de fuego.

- El Avisor de Fuego necesita que estan de cerca acercas de su habitacion.
- Instale por lo menos un detector de humo fuera de cada habitacion y en cada nivel de su hogar.
- El Avisor de Fuego estacionado en el cielo tiene que estar 6 pulgadas retirado de la pared y 2 pies de una esquina. El Avisor de Fuego tambien puede estar 6 pulgadas del cielo y 2 pies de la esquina si quiera estacionar lo en la pared.
- Si usted vive en una casa movil estacione el Avisor de Fuego 6 pulgadas del cielo y 2 pies de las esquinas.
- Por favor de no poner el Avisor de Fuego acercas de una ventana, entrada de puertas, en el bano, o lugares que pase mucho viento.

Como Aprobar Su Alarma de Humo

- Apruebe su alarma cada semana por empujar del cubierto de su alarma por lo menos cinco segundos. La alarma debe sonar. La alarma no va a sonar para humo hace diez minutos despues de probar. Al fin de diez minutos, la alarma va a chirriar cuando enciende otra vez.
- Se la alarma esta an el techo, usa el mango de una escoba para empujar el cubierto.
- Quite el polvo del cubierto de la alarma cada seis meses.

Recuerde…

- La luz roja en el cubierto va a enviar cada 45 segundos cuando la alarma funciona.
- Cocinando o humo de cigarretes se puede encender la alarma. Ocurre a si, empuje el medio del cubierto de la alarma por lo menos 5 segundos para callar. Los proximos 10 minutos la alarma esta apagada. La alarma va a chirriar cuando vuelve a encender.
- Si la alarma suena y no hay humo o fuego, quizas se necesita a mover la alarma a otro lugar. Los cuartos que son mojados o polvoscos, son lugares de cocinar a menudos son las causas de alarmas falsas.
- Si la alarma suena y sique sonando, salga de su casa muy pronto y llame 911 o los bomberos de la casa de un vecino.
- La pila y la alarma dura diez anos. Cuando la pila esta al fin de su vida, la alarma va a chirriar de vez en cuando. Reemplace la alarma a este vez.
Lugares de peligro en la casa.

Medidas de seguridad para prevenir lumbre en su casa.
- Extingui las velas cuando se va de el cuarto donde esten.
- Use la electricidad con responsabilidad. Evite sobrecargar la electricidad en un tomacorriente.
- Cambie los cordones de electrico que esten desgastados o reventados.
- Favor de alasar los liquidos peligrosos (pintura, gasolina) en el exterior de su casa en continente de metal.

Electricidad

Medidas de seguridad con la electricidad.
- Use tapones de seguridad en los tomacorrientes, especialmente si tiene ninos pequenos.
- Evite sobrecargar la electricidad en un tomacorriente y no coloque los cordones de los aparatos electricos debajo de alfombras o muebles.

Avisador de Fuego

Avisador de Fuego es la manera mas efectiva para prevenir muerte o dano que puede suceder en usa lumbre.

Incendios en su hogar

Causas y medidas de prevenir
Cigarrillos son culpables por 21% de las llamas en casa en el estado de Oklahoma. 3 de 4 personas danados por llamas mueren.

Medidas de seguridad contra los incendios.
- Nunca fume en la cama.
- Detener debajo de las sillas, y los cojines del sofá por cigarrillos incendiados antes de irse acostar.
- Mojando los cigarrillos, la ceniza, y los fosforos antes de vaciar en la basura.
- Por favor de apagar los cigarrillos en la cenizera cuando se valla del cuarto.
- Por favor de usar cenizera’s hondas.

Cocina no es peligroso. Pero la cosina puede causar dano para los adultos y los niños. Y también puede ser la causa de llamas en la casa.

Medidas de seguridad en la Cocina.
- Mantenga los utensilios que se puedan quemar, tales como toallas, ropa y cortinas, lejos de la estufa.
- Mantenga un extintor de incendios en la cocina, y aprenda a usarlo en el departamento de bomberos.
- Quede se en la cocina cuando este cocinando.
- Favor de dar vuelta a las meneseras de las ollas y sartenes para que los niños no puedan alcanzar los.
- No use ropa muy suelta. Su ropa se puede ganchar con las manejeras de las ollas y sartenes y callar se de la estufa.
- Apague las llamas causadas por grasa. Simplemente cuviende los sartenes y ollas con sus tapas. O apagar con el extintor de incendios.

Calefacción -- Equipo como los calentadores, estufas que usan madera para ser calor, o las chimeneas pueden causar llamas, especialmente en los meses del invierno. 20% de las llamas en Oklahoma an sido culpables en esta manera.

Medidas de seguridad contra los calentadores.
- Mantenga calentadores, estufas y chimeneas 3 pies de las cosas que preda encenderse en fuego (sofases, cortinas, camas, ropa, paderes, y cobijas).
- No de je los niños solos en los cuartos que tengan calentadores.
- Favor de tapar lo frente de las chimenea. Favor de poner la cenizas de la estufa o chimenea en un vote de metal en el extiror de su casa.
- Si su calentador usa combustible no se lo eche cuando este el calentador este caliente.
- Liempie su chimenea una ves al ano. Mantenga su calentador.

Los Ninos -- la mayoría de las llamas suceden cuando los niños juegan con llamas. 3 de 4 personas que mueren en llamas son niños menores de 5 anos de edad.

Medidas de seguridad contra los ninos.
- Ensenar a los ninos que llambre no es juguete.
- Ensenar a los ninos que si encuentran incendentes y fosforos que se los entreguen.
- Ensenar a los ninos que nunca se pongan a jugar con los calentadores, estufas, chimeneas.
SMOKE ALARM SURVEY

PLACE LABEL HERE

Form Number ___________________

Employee Name ________________________________

KEEP RECORD OF ATTEMPTED VISITS:

If the house is occupied but no one is home, try two more times (a total of three visits must be made). Each visit should be on a different day of the week (include at least one weekend day), and at a different time of the day (include at least one evening); keep record of all visits below. If visits are unsuccessful, attempt to make an appointment by telephone.

Visit #1: Date________ Time_________ Occupant not home refused completed
Visit #2: Date________ Time_________ Occupant not home refused completed
Visit #3: Date________ Time_________ Occupant not home refused completed

Phone attempt: Date________ Time_________ Contact made yes no
Phone attempt: Date________ Time_________ Contact made yes no
Phone attempt: Date________ Time_________ Contact made yes no

IF UNABLE TO COMPLETE SURVEY, CHECK REASON:

[ ] could not locate address
[ ] participation refused
[ ] home appears vacant
[ ] no one home (three visits)
[ ] unable to communicate with occupant (need interpreter)

FOR AN ADULT MEMBER OF THE HOUSEHOLD SAY:

"I/WE HAVE RECORDS THAT INDICATE A SMOKE ALARM WAS GIVEN TO THIS ADDRESS WITHIN THE PAST YEAR(S) BY THE FIRE DEPARTMENT AND COUNTY HEALTH DEPARTMENT. I/WE WOULD LIKE TO CHECK THE SMOKE ALARM TO MAKE SURE IT IS PROPERLY INSTALLED AND WORKING."

Name of current occupant ____________________________________________________________

IF NEW OCCUPANT: Was smoke alarm in home when new occupant moved in? [ ]yes [ ]no
How long has the occupant lived at this address? __________________
CHECK THE OCCUPANT'S ACTUAL RESPONSE.

1. Do you have a smoke alarm in the house now? □yes □no □unk

1.a. If NO, why? □never received one □gave away □broken □misplaced □other, specify __________

GO TO ALARM STATUS SECTION

If UNK smoke alarm, GO TO INSPECTION SECTION

1.b. If YES, is it working? □yes □no □unk

1.c. Is the smoke alarm the one given away by the Fire Department and the Health Department? □yes □no □unk

1.d. Has the battery been replaced in the past 6 months? □yes □no □unk

1.e. Has the alarm provided early warning of smoke or burning material? □yes □no

1.f. If YES, what was burning? (grease, food, cigarettes, etc.) ________________

1.g. Was the fire department called? □yes □no

1.h. Was there a housefire? □yes □no

INSPECTION SECTION

1. On inspection, is the alarm from the giveaway? □yes □no

2. Is the alarm installed? □yes □no

   If NO, install the alarm. GO TO ALARM STATUS SECTION.

3. Is the alarm placed outside the sleeping area? □yes □no

   If NO, offer to move the alarm.

4. Is the alarm located 6-12” from ceiling or wall and 2’ from any corner? □yes □no

   If NO, offer to move the alarm.

5. Does the test button activate the alarm? □yes □no

5.a. If NO, is the battery in the alarm? □yes □no □n/a

   **********************REPLACE BATTERY IN THE ALARM**********************

6. Does the test button activate the alarm with the new battery installed? □yes □no □n/a

   If NO, replace the alarm.

ALARM STATUS SECTION

<table>
<thead>
<tr>
<th>Alarm Status On Inspection (check one)</th>
<th>Corrective Action Taken After Inspection</th>
</tr>
</thead>
<tbody>
<tr>
<td>alarm properly installed and working</td>
<td>none</td>
</tr>
<tr>
<td>alarm not installed</td>
<td>battery replaced</td>
</tr>
<tr>
<td>alarm improperly installed</td>
<td>battery given, not installed</td>
</tr>
<tr>
<td>alarm does not function with new battery</td>
<td>alarm installed</td>
</tr>
<tr>
<td>battery does not function</td>
<td>alarm given, not installed</td>
</tr>
<tr>
<td>battery was removed</td>
<td>alarm moved to proper position</td>
</tr>
<tr>
<td>applicant no longer had alarm</td>
<td></td>
</tr>
<tr>
<td>new occupant and no alarm</td>
<td></td>
</tr>
<tr>
<td>unable to make contact with occupant</td>
<td></td>
</tr>
<tr>
<td>inspection refused</td>
<td></td>
</tr>
</tbody>
</table>
Home Fires: The Facts

30 seconds after first flame, temperature rises to nearly 100°F

1 minute 50 seconds: smoke detector sounds.

3 minutes 41 seconds: everything in room ignites—flashover

In only a few minutes, the heat from a home fire can reach over 1100°F; this is hot enough to kill the people in rooms not even on fire.

Fire produces gases and fumes that can make people sleepy, weak, and confused. The smell of smoke will not wake a sleeping person.

Unlike fires in the movies, the smoke from a fire can be so thick that even with all the lights on, the home would be completely dark in 4 minutes.

Two out of three people who die in home fires were asleep when the fire began.

Smoke detectors increase the chances of surviving a home fire by 2 to 3 times.

The average cost of a burn injury requiring hospitalization is over $35,000. A battery-operated smoke detector costs approximately $6 and an electrical/battery operated smoke detector costs approximately $13.

In Oklahoma:

Nearly 100 Oklahomans are severely burned or die each year in home fires.

Heating equipment, smoking, and electrical wiring are the leading causes of home fire-related burn injuries in Oklahoma.

Nearly 90% of persons who die in a residential fire in Oklahoma do not have a functional smoke detector.

An Oklahoma City smoke detector giveaway program reduced injuries and deaths by 80% and saved $20 for every $1 spent on the program.

Source: Oklahoma State Department of Health, Injury Prevention Service
Smoke Detectors: 
The Facts 

Smoke detectors are to wake sleeping people in the event of a home fire. According to the United States Fire Administration, most fires in the home with injury occur between 11 p.m. and 6 a.m., when people are sleeping. Poisonous gases and smoke produced by a fire can put persons into a deeper sleep. The smoke and heat from a home fire can become deadly within minutes. Smoke detectors are an effective and inexpensive means of early warning to awaken sleeping residents while there is still time to escape.

A functioning smoke detector increases the chances of surviving a home fire by 2 to 3 times. Smoke detectors save lives, prevents or minimalizes injuries, and can minimize property damage by providing early fire detection. Other fire safety equipment, such as heat detectors and fire extinguishers, give added protection to a home, but there is no substitute for a smoke detector. Heat detector and smoke detector comparison tests performed by the National Fire Protection Association (NFPA) showed that smoke detectors consistently gave the first warning of fires, and often by enough margin to make a major difference in the chances of escaping alive.

There are two basic types of smoke detectors. Ionization-type smoke detectors use a very small quantity of radioactive material to generate a weak electrical current within the detector chamber. When smoke particles enter the chamber, the current is disrupted and the detector sounds an alarm. Ionization-type smoke detectors are slightly more sensitive to open, flaming fires. Photoelectric-type smoke detectors use a light source and a photoelectric cell. When smoke particles enter the detector chamber, the particles scatter the light into the path of the photoelectric cell, generating a weak electric current, and the detector sounds an alarm. Photoelectric detectors are slightly more sensitive to fires that are smoldering.

Some detectors are powered by batteries while others are powered by household current. Battery-powered smoke detectors are very simple to install and maintain. The batteries usually last about one year before replacement is necessary. The detector will sound an intermittent "beep" or "chirp" when the battery needs to be replaced. A 10-year lithium battery-powered smoke detector is currently available. Hard-wired or household electric current-powered smoke detectors need to be installed by a licensed electrician. These detectors only work while the household electric current works. These detectors do not work in the event of a power failure, such as from power lines being down, fuse blowing out, or electrical fire. Newer electric models have battery backup packs to keep the detector functioning during an electrical failure.

Smoke detectors must be properly installed and maintained. NFPA standards state that smoke detectors should be located outside each sleeping area and on every level of the home. All detectors should be tested monthly. A study conducted by the Oklahoma State Department of Health found that approximately one in five smoke detectors in homes do not function. Battery-powered detectors should have the battery replaced at least once a year or when the detector "chirps." Detailed installation and maintenance instructions come with all smoke detectors and should be carefully followed.
Home Fires in the United States

In the United States, a fire department responds to a home fire every 69 seconds. In 1994 alone, fire departments responded to more than 2 million fires. Home (mobile home, apartment, duplex, single family dwelling) fires accounted for 22% (438,000/2,000,000) of those fires. This number is down 4% from the 1990-1994 average. Outside fires (50%), vehicle fires (20%), and other structure fires (8%) accounted for the remaining 1994 fire responses.

Home fires cause more than $509,132 in damage every hour. In the United States, home fires cause direct property damage to the annual average cost of nearly 4.5 billion dollars. Arson fires were the leading cause of direct property damage, accounting for 20% of the costs. Heating equipment (13%), electrical wiring (13%), and other equipment (10%) were the next leading causes of major fire loss.

Every 26 minutes a citizen is injured in a home fire. Seven out of 10 citizen fire-related injuries occurred in homes (19,475/27,250, 71% in 1994.) According to Cost of Injury in the United States, the average cost in 1985 dollars for a hospitalized fire/burn patient was $35,303 and $347 for a nonhospitalized injured person. It is also important to note that 52,875 firefighters were also injured during fires in 1994.

Nationally, a citizen dies in a home fire every 143 minutes. Approximately 80% of the U.S. fire deaths occur in home fires. Each year on average, 3,680 citizens die in home fires. Most people who die in home fires are not in the room in which the fire originates. Young children and elderly adults are at the highest risk of dying in a home fire. The lifetime cost of a fire/burn death was $249,367 in 1985 dollars, according to Cost of Injury in the United States.

Three of every five fire deaths occur in homes with no detectors. The technology for smoke detectors has been around since the 1960's, and smoke detectors became available to consumers in the 1970's. A smoke detector decreases the chance of dying in a home fire by nearly half.

Source: 1990-1994 National Fire Incident Reporting System (NFIRS) and NFPA Survey unless otherwise noted.
Home Fire-Related Burn Injuries in Oklahoma

The annual death rate in Oklahoma for fire/burn deaths was 46% HIGHER than the U.S. rate for 1990-1993. Fire-related injuries are the third leading cause of unintentional injury deaths in Oklahoma. Burn injury deaths accounted for 20,452 years of potential life loss before age 65 from 1988 to 1994. Home fires accounted for the majority (64%) of the fire-related deaths.

Seven out of ten people injured in a home fire die. Children less than 4 years of age and persons 55 years and older were most likely to die if involved in a home fire from 1988-1994. The age of Oklahomans injured in home fires ranged from 2 months to 96 years of age. Among persons who survived, the average hospital stay was 20 days, ranging from 1 day to 235 days.

Two out of three home fire-related burn injuries occurred in single family dwellings. Seventy-one percent of Oklahomans injured in a single family dwelling home fire died. The occurrence of home fires with injuries peaked during the winter months (November, December, and January.) The leading sources of ignition were heating equipment, smoking, and fireplay (children playing with fire.) The largest portion of home fires with injuries began in the early morning hours from midnight to 6 a.m.

Of persons who died in a home fire, 87% did not have a functioning smoke detector. Persons who did not have a functioning detector were three times more likely to die than persons who had functioning smoke detectors. In 1997, Oklahoma passed a law which requires smoke detectors in one- or two-family dwellings.

Source: Oklahoma State Department of Health, Injury Prevention Service

LifeSavers II: A Guide to Smoke Detector Projects
WHEREAS, each year in the United States, an estimated 3,425 persons are killed and approximately 19,475 persons are injured in residential fires; and

WHEREAS, almost half of the residential fires occur in homes without smoke detectors; and

WHEREAS, each year, approximately 100 Oklahomans suffer a residential fire-related burn injury severe enough to require hospitalization; and

WHEREAS, in Oklahoma, nearly half of all persons severely injured or killed during a residential fire are children less than 5 years of age or over 64 years; and

WHEREAS, working smoke detectors reduce the risk of death in 86% of fires and the potential of serious injuries in 88% of fires; and

WHEREAS, every 19 minutes a person is injured in a home fire in the United States; and

WHEREAS, approximately one in five smoke detectors in Oklahoma's homes are not functional; and

WHEREAS, most states and municipalities have adopted mandatory smoke detector laws, because of the effectiveness of smoke detectors in reducing injuries; and

WHEREAS, injury prevention advocates are helping to raise public awareness of residential fire-related injury and the need for all homes to have working smoke detectors;

NOW, THEREFORE, I, ___________________, Mayor of the City of ___________________, do hereby proclaim the week of __________. 200__, as

SMOKE DETECTOR AWARENESS WEEK

in the City of ________________, and encourage all residents to make sure they have working smoke detectors installed in their homes.

__________________
Mayor
SAMPLE NEWS RELEASE

FOR RELEASE:
CONTACT:

(Name)____________________, (Title)____________________ urges residents to take a few extra minutes to do something that could save your life -- make sure your home has at least one working smoke detector. Several surveys across Oklahoma found that one out of five households had smoke detectors that did not work.

"Every year, residential fires in Oklahoma kill or seriously burn more than 100 people. Nearly 90 percent of these deaths and injuries could be prevented by the use of a working smoke detector," (Name)____________________ said.

"It only takes 3 and 1/2 minutes for the heat of a house fire to reach over 1100 degrees Fahrenheit. People die when the temperature is over 212 degrees Fahrenheit. Those with the greatest risk of dying in a residential fire are children less than 5 years old and adults over 55," (Name)____________________ added.

Smoke detectors cost anywhere from $6 to $13 but they can save a great deal of medical costs for hospitalization and even save your life. The average cost of a burn injury requiring hospitalization is over $35,000.

In a recent study in Oklahoma City, a smoke detector giveaway program reduced the number of injuries and deaths by almost 75 percent and saved $20 in medical costs and productivity for every dollar spent on the program.

Remember, working smoke detectors work for you.

###
SAMPLE NEWS RELEASE

FOR RELEASE:

CONTACT:

(Name)____________________, (Title)____________________ urges residents to take a few extra minutes when you set your clocks back to Central Standard Time and do something that could save your life -- change the batteries in your smoke detector.

"On October , when Daylight Savings Time ends for this year, you should use the annual resetting of your clocks and watches as a device to jog your memory and change your smoke detector batteries. Every year, residential fires in Oklahoma kill or seriously burn more than 100 people. Nearly 90 percent of these deaths and injuries could be prevented by the use of a functional smoke detector," (Name)____________________ said.

"It only takes 3 and 1/2 minutes for the heat of a house fire to reach over 1100 degrees Fahrenheit. People die when the temperature is over 212 degrees Fahrenheit. Those with the greatest risk of dying in a residential fire are children less than 5 years old and adults over 55," (Name)____________________ added.

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In a recent study in Oklahoma City, a smoke detector giveaway program reduced the number of injuries and deaths by 80 percent and saved $20 in medical costs and productivity for every dollar spent on the program.

###
SAMPLE PUBLIC SERVICE ANNOUNCEMENT

:15

ANNOUNCER: WHEN SMOKE DETECTORS DON'T WORK,

THE RESULTS CAN BE DEADLY.

DON'T FORGET TO CHANGE

YOUR SMOKE DETECTOR BATTERIES

WHEN YOU CHANGE YOUR CLOCKS

BACK FROM DAYLIGHT SAVINGS TIME.
SAMPLE RADIO PUBLIC SERVICE ANNOUNCEMENT

ANNOUNCER: IT ONLY TAKES A FEW MINUTES FOR A HOUSE FIRE TO BECOME DEADLY.

A WORKING SMOKE DETECTOR WORKS FOR YOU. INSTALL AND MAINTAIN SMOKE DETECTORS IN YOUR HOME.

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LifeSavers II: A Guide to Smoke Detector Projects
5. RESOURCES

Oklahoma State Department of Health
Injury Prevention Service
1000 N.E. 10th Street
Oklahoma City, OK 73117-1299
(405) 271-3430 or 1-800-522-0204

The OSDH Injury Prevention Service maintains a statewide surveillance system of all hospitalized or fatal traumatic brain and spinal cord injuries, burns, and submersion (drowning or near-drowning). IPS collects epidemiologic and demographic information as well as information regarding the circumstances surrounding the injury. County or city-specific data are available. A wide variety of reports on county and state injuries are available including The Community Guide for Injury Control and Oklahoma Injury Facts.

Fire Service Training
Oklahoma State University
1723 W. Tyler
Stillwater, OK 74078-8041
(405) 744-5727 or 1-800-304-5727

Fire Service Training (FST) is an extension/public service program at Oklahoma State University with the mission to extend knowledge and technology through educational programs and delivery systems for the Oklahoma fire service community to prevent and minimize the loss of life and property from fire and other emergencies. FST provides programs to train pre-school through adults in fire prevention education. FST also trains trainers across the state of Oklahoma. For information about Sesame Street education, Learn Not to Burn curriculum, and smoke detector information, call FST.

Baptist Medical Center of Oklahoma
Baptist Burn Center
3300 Northwest Expressway
Oklahoma City, OK 73112-4481
(405) 949-3343

Baptist Burn Center provides educational packages on burn prevention and basic burn care, including videotapes, brochures and flyers. Potential topics of interest for educational packages include:

- Fire Services and Emergency Responders - How to identify degrees and percentage of burns, identifying inhalation injuries, and basic care of the burn victim at the scene.
- Hospital Emergency Room Personnel - Resuscitation of burn victim, pain management, wound care, and criteria for transferring patients to a specialized burn care facility.
- Civic Clubs, Schools, Industry, and General Public - Household safety precautions to prevent fire and burn injury.
Inspections of all public buildings, hospitals, nursing homes, correctional facilities, and residences are available through this office. Statewide fire incident data (OFIRS) are available, as well as flyers on fire prevention, related legislation and criminal investigations.

The *Learn Not To Burn* curriculum is available for three grade levels; K-2, 3-5, and 6-8, and for high school students. The curriculum *Fire Safety for the Rest of Your Life* is also available. Other materials available include a catalog listing of items such as, *Learn Not to Burn* resource books, brochures, coloring books, activity books, comic books, and videos. NFPA also provides standards and fire code references. NFPA conducts an annual stratified, random sample of fire departments from across the country. Fire-related injury and death data, as well as other information, can be obtained by calling the ONE STOP DATA SHOP at 617-984-7450.

Through this program, the Oklahoma City Fire Department provides to teachers and preschool children an 18-week fire safety curriculum, including coloring calendars. Also available are coloring books, stickers (badges), and brochures on general fire safety. *Kid Safe* "train the trainer" courses are required in order to obtain the curriculum.

Operation FireSAFE offers educational programs in the form of presentations that are both insightful and entertaining for children. The participating firefighters are trained to evaluate firesetting behavior and make recommendations for the prevention of firesetting. The fire departments involved work in association with a variety of family counselors and child psychologists. Safety information materials are also available.
Oklahoma's SAFE KIDS Coalition  
Children's Hospital of Oklahoma  
Center for Injury Prevention  
P.O. Box 26307  
Oklahoma City, OK 73126  
(405) 271-5695  

The coalition provides brochures, 1-page activity sheets for elementary students, and videos and speakers on childhood burn prevention (residential fire injury and scald burn prevention.) This main office assists in the development of local SAFE KIDS coalitions and can provide limited resources.

Burn Care Service  
Children's Hospital of Oklahoma  
P.O. Box 26307  
Oklahoma City, OK 73126  
(405) 271-4733  

The service provides education about childhood burn prevention such as the "school re-entry program" which involves a representative of the burn center speaking with teachers and classmates regarding the re-entry of a student who has received extensive burns. The Burn Care Services also provide educational pamphlets and videos, basic burn education for the general public and special groups, and burn care training to EMTs, nursing students, and firefighters.

Save-A-Life Program  
(405) 232-7121  

Save-A-Life is an established statewide partnership which coordinates the administrative and purchasing power of many fire departments to supply smoke detectors (and free detectors) to the member fire departments. If you are interested in receiving more information in the Save-A-Life program, call (405) 232-7121.

American Red Cross  
(call your local Red Cross Chapter)  

A wide variety of fire safety brochures, door hangers, and coloring books are available through the Red Cross. In addition, many life safety courses are offered on a regular basis.
The U.S. Fire Administration (USFA) provides a variety of public fire prevention materials ranging from media kits, curricula, and materials for visual and hearing impaired persons. The National Fire Incident Reporting System (NFIRS), a voluntary, nationwide fire incident reporting data base, is operated by USFA and contains information about the type of construction and use of sprinklers and detectors. More information can be located on the worldwide web at www.usfa.fema.gov

Burn Concerns
(818) 767-6782

Burn Concerns is a national consulting firm for fire/burn prevention, specializing in juvenile firesetters.

Burn Awareness Coalition
818-994-4661

Sponsors fire and burn prevention programs, in particular, National Burn Awareness week. Burn Awareness Coalition also supplies pamphlets, posters, and camera-ready art for public service announcements.

National Center for Injury Prevention and Control
Centers for Disease Control and Prevention
U.S. Public Health Service
770-488-4538 or
770-488-4818

The Center has multiple data bases on various causes of injury and death, including the NCIPC - CDC Injury Mortality Atlas, 1986-1994. The Atlas contains color-coded maps which summarizes the national and state (by county) data for nine major causes of injury death.
Internet resources

Centers for Disease Control and Injury Prevention, National Center for Injury Prevention and Control
http://www.cdc.gov/ncipc/ncipchm.htm
http://www.cdc.gov/ncipc/injweb/websites.htm

Consumer Products Safety Commission
http://www.cpsc.gov/

Education Development Center/Children's Safety Network
http://www.edc.org/HHD/csn

National Center for Health Statistics
http://www.cdc.gov/nchs/www/nchshome.htm

National Safety Council
http://www.nsc.org/

SAFE KIDS Coalition
http://www.oke.org/safekids/

State and Territorial Injury Prevention Directors' Association
http://www.stipda.org

University of North Carolina Injury Prevention Research Center
http://www.sph.unc.edu/iprc
http://www.sph.unc.edu/vincentweb

United States Fire Administration
http://www.usfa.fema.gov/

Oklahoma State Department of Health
http://www.health.state.ok.us

Oklahoma State Department of Commerce - Data Center
http://www.odoc.state.ok.us/osdc.htm
Reference Material


Christina Rossomando, ROSSOMANDO and Associates: "The Community-Based Fire Safety Education Handbook."


Richard Strother, Pam Powell, Laura Bachbiner (eds), United States Fire Administration, 1979 (301-447-1000) "Public Fire Education Planning: A Five Step Process."


"Community Based Prevention Workshop Guide," Oklahoma Community Based Fire and Burn Prevention Alliance, 1995. Workshops available through the Oklahoma State University, Fire Service Training.

