



Young Children Can Be Key to Fire-Safe Families

Carolyn E. Kourofsky and Robert E. Cole

Four-year-old Nyha points to the coffee table and declares, “Mommy! You’re supposed to put that away! That’s just for grown-ups.” Nyha’s mom, Chanesia, spies the lighter she had left on the table after lighting a candle. “You’re right,” she agrees, “Mommy will put it away.” Under her daughter’s watchful eye, Chanesia puts the lighter on the top shelf of the cupboard. Then she thanks Nyha for helping her remember what to do.

Stories like this suggest that young children can be a powerful force in helping keep their families safe. Now, there’s research to back up the stories.

For more than 15 years, preschool programs nationwide have worked with Fireproof Children/Prevention First, an international center for injury prevention research and education, to bring fire safety education to young

children and their families. The *play safe! be safe!*[®] curriculum includes lessons that young children can learn and understand, such as telling an adult when they find matches or lighters, crawling low under smoke, going toward a firefighter, and practicing “Stop! Drop! And Roll!”

But a tragedy in Mississippi, just days after a fire safety training workshop, makes it all too clear that safety education also needs to reach the adults who care for these children. Five children were killed by a blaze in a home with no working smoke alarm.

The importance of bringing smoke alarms to families with low incomes

Smoke alarms provide families with an essential early warning in the event of a fire. Of the 2,810 home fire deaths that occurred between 2003 and 2006, smoke alarms were present and functioning in only one in three of the homes (37 percent) (Ahrens 2009).

The percentage of working smoke alarms is difficult to estimate in homes of families with low incomes, but it is

lower than that in the population at large. A 2004 telephone survey by the National Fire Protection Association (Ahrens 2008) found that 93 percent of households above the poverty level reported having smoke alarms, compared to 82 percent of households below the poverty level.

Other studies, however, suggest that telephone surveys may substantially *overestimate* the presence of functioning smoke alarms in the homes of some populations. Studies involving household visits and direct observation have found that only 50 percent of households with low incomes had working smoke alarms (Sharp & Carter 1992; Neily, Smith, & Shapiro 1994; Douglas, Mallonee, & Istre 1999). These studies support the anecdotal reports to Fireproof Children from Head Start managers and home visitors working directly with families with low incomes. They have estimated that the majority of the families they served had no working alarms in their homes.

How preschool programs make a difference

Between 2004 and 2005, the federally funded Prevention First Fire Safety program worked with Head Start grantees and other preschool programs to distribute 20,883 smoke alarms and vocal smoke alarms to low-income neighborhoods in nine states and Puerto Rico. Teachers and preschool administrators either gave out

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the smoke alarms or worked with fire departments that installed the alarms in homes. In addition to classroom education for young children, teachers sent home parent/child activities focused on the importance of smoke alarms and on checking their function at least every six months (even hard-wired alarms and alarms with 10-year batteries should be checked), keeping matches and lighters out of children's sight and reach, and having and practicing a plan for exiting the home in case of fire.

An extensive evaluation of this smoke alarm distribution, under the direction of Fireproof Children and including home visits and personal interviews, was made in three diverse communities, both urban and rural: Chicago, Illinois; Corpus Christi, Texas; and Piketon, Ohio. Teachers delivered the Prevention First program in their classrooms, and Head Start managers helped facilitate follow-up with 258 families.

It was found that *a year after distribution, 72 percent of homes still had working smoke alarms, significantly better than the 50 percent that is the norm for families with low incomes.* The placement and operational status of the alarms were all confirmed through visual inspection by a member of the local fire service.

The evaluation suggests a relationship between safety education in early childhood settings and family safety practices at home. Respondents were asked if they recalled their children bringing home

fire safety materials, and their answers were then compared to their reported fire safety practices. *Families who recalled seeing fire safety materials brought home by their children were more likely to report having an exit plan and subsequent meeting place, testing their smoke alarms in the past month, and practicing their escape plan within the past six months.*



Anecdotes from parents show how children can be an important link between safety education and home safety. One mother said her young son, who had been part of several fire safety programs, kept nagging her until she got the donated smoke alarm off the kitchen table and installed on the wall.

Reducing residential fire deaths, and increasing the use of smoke alarms to do so, were key goals of Healthy People 2010, the national agenda for addressing the most significant preventable threats to health. But Healthy People 2010's interim progress review (published in 2006) found "little or no" progress in reducing such deaths, and limited data about the use of smoke alarms.

Given the critical need for more working smoke alarms, especially in households with low incomes, the results of the smoke alarm evaluation are encouraging. First, schools and community agencies committed to solving the problem can make a significant community impact on the percentage of families who are protected by smoke alarms. Second, the distribution of safety education material, especially through children, can influence home safety behavior, encouraging families to develop and practice a workable exit plan.

What can teachers do?

1. Incorporate fire safety learning activities in the classroom. For example, children can learn what a smoke alarm sounds like, what to do when it sounds, and what to do if they are in a room with smoke. Consider the following activities for children ages 3 to 6:

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- As children march around the room to music, press the test button on a smoke alarm. When it goes off, have everyone get on their hands and knees and crawl to the exit. Remind children to hold their heads up (about 18 inches from the floor), watching where they are going. Explain that “crawl low” is only for when they are in a room with smoke. Have an adult at the exit to supervise the children and praise them for getting out quickly and safely.

- Gather pictures of tools that should be used only by adults—for example, a saw, knife, matches, or lighter. You can find photos in magazines or use ready-made ones that are included in the *play safe! be safe!* classroom kit (see “To learn more about . . .”). Hold up each picture and ask the children whether the object is “safe for play” or whether they should “keep away.” Ask children “What is this? What is it for?” When children incorrectly identify something as “safe for play,” it is usually because they don’t know what it is. Rely on the group to arrive at the correct identification. Discuss what to do if they find matches or a lighter. Make sure they know never to touch these things, but instead to tell a grown-up to put them away.

2. Team up with your local fire department. Many fire departments have smoke alarms available at little or no cost and appreciate educators’ help in getting them to the families who need them. Some fire departments have volunteers or staff who will even install them in the homes. Check with your local firehouse and share the information with families.

3. Invite a firefighter to visit. Regular classroom visits from your neighborhood fire department—to have lunch with the children or to read them a story—help children see firefighters as friends. When children

children, get to know them a little, and give them a chance to ask questions. The firefighter can then show children the gear, putting it on one piece at a time. Alternatively, the firefighter might put the gear on a teacher to



feel comfortable with firefighters, they’re more likely to listen to the safety messages that firefighters have to share. Being comfortable with how a firefighter looks in full turn-out gear is important for children. In a fire, you want children to go to the firefighter—not run away and hide.

For young children, ask the firefighter to bring firefighting gear but not wear it to the classroom. Instead, he or she can first sit down with the

show that it’s still a familiar, friendly person underneath all that gear.

Even for older children who aren’t afraid of the appearance of a firefighter in full gear, seeing the gear up close teaches them how much protective clothing is needed to enter burning buildings. This reinforces the fact that in a fire everyone must get out quickly and not go back inside, because they don’t have anything like this special kind of protection.

4. Involve families. Throughout the year, teachers can reinforce fire safety messages by sending them home with children or posting reminders in a place where they can be easily seen by families picking up or dropping off their children. These reminders can be simple questions:

When children feel comfortable with firefighters, they’re more likely to listen to the safety messages that firefighters have to share.

- Do you have a smoke alarm? Have you checked it at least in the last six months to make sure it's working? (Note: We emphasize checking the alarm rather than changing the battery, since people with hard-wired alarms or alarms with 10-year batteries may otherwise assume they need not do anything.)

- Does your family have a fire escape plan? When was the last time you practiced it?

- When was the last time you and your children practiced "crawl low under smoke"?

- Are matches and lighters in your home out of reach of your child?

5. Revisit fire safety several times a year. Without repetition, young children tend to forget key details. So do their parents! Linking fire safety to specific seasons is a good way to reinforce lessons.

- In spring and fall, changing the clocks for Daylight Savings time can serve as a reminder to check smoke alarm batteries and practice a home fire drill.

To learn more about . . .

Prevention First Fire Safety for Preschool Children and Families, which is funded by federal grants in states with high rates of fire-related deaths and injuries, visit www.fireproofchildren.com.

The **play safe! be safe!** preschool fire safety materials used in the program, and for other educational fire safety games and activities in English, Spanish, or French, visit www.playsafebesafe.com.

Planning and practicing a fire escape plan, visit www.homefiredrill.org. The site features "Help Mikey Make It Out," an interactive teaching game for young children.



- Winter, with its long nights and holiday celebrations, is a good time to remind children and families that candles, as well as the matches and lighters used to light them, are tools used by adults only.

- During the barbecuing season, send home or post a reminder that the area around a grill should be a "kid-free zone." Also remind families that lighters should be stored out of sight and reach of children.



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