

Newspaper coverage of residential fires: an opportunity for prevention communication

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Background: Worldwide, fire-related burns are a major cause of unintentional injury, morbidity and mortality, with the majority of deaths occurring in developing countries. In the US, as in other countries, most fatal fires occur in the home. Effective prevention strategies for residential fires are, however, currently underutilized. The news media is one available communication channel to promote such strategies, and analyzing current news coverage is a first step towards incorporating media advocacy into injury prevention efforts related to residential fires.

Methods: Four daily newspapers circulating widely in Maryland were monitored for 1 year. Articles describing residential fires were coded for measures of prominence, content and frame. Analysis focused on measures of issue newsworthiness, reporting of causation and consequences of fires, and inclusion of public health context and conveyance of prevention messages.

Results: The data indicate that fires are newsworthy, with 374 relevant news articles in a 1-year period, 32% of which appear on the first page of a section. Coverage generally concerned recent local fire events. Most articles discussed the consequences of fires (88%), and identified a causal factor (58%). Only 36%, however, included prevention information, and less than one-quarter set residential fires in a public health context.

Conclusion: The newsworthiness of residential fires provides a clear opportunity for widespread communication around injury prevention. Improving media advocacy will entail framing discussion of recent fire events in such a way as to support inclusion of prevention strategies and a public health context in news coverage.

Fire-related burns are a leading source of injury and death in countries across the globe.¹ Fire-related fatalities are more prevalent in developing countries, but also remain a serious problem in developed countries. A particular concern in countries such as the US, where many households have a smoke detector, is public awareness of the extent to which fire injury in houses and death remain a leading public health concern.² In 2005, fire departments in the US responded to approximately 1.6 million fires. These fires resulted in 3685 fatalities. Although a minority (25%) of all US fires occurred in homes, the vast majority (82%) of the civilian fire deaths resulted from residential fires.³ A lack of public awareness of residential fires can have implications in terms of public support for important policies such as enforcement of building codes and funding of fire departments. Similarly, public awareness and understanding is key for implementation of known prevention strategies in one's own home.

There are well-established and effective prevention strategies for residential fires, such as the installation and maintenance of working smoke alarms. Previous research has underscored the value of interventions that promote the implementation of such strategies in reducing injuries and deaths associated with residential fires.^{2–5} Engaging people in prevention efforts within their own home is a key part of efforts to reduce the impact of residential fires.⁶ Making an issue newsworthy is one way to widely disseminate important public health messages,⁷ and has been effectively used in other areas of public health to bring about the desired attitudinal and behavioral change,^{8–11} but has yet to be fully utilized by those working to prevent residential fire injury.

Beyond individual-level change, successful implementation of upstream policy interventions also requires an informed and supportive public, and the news media is an effective means by which to influence public understanding of policy issues.^{12–14}

News coverage influences the public's agenda and priorities, and, as a result, can influence policy change.^{15–16} Injury prevention research has suggested a need for public education on the effectiveness of policy level prevention strategies in other areas of injury prevention.¹⁷ Although there is evidence that media can serve as an influential source of information on fire prevention,¹⁸ to our knowledge, scholarly attention is yet to be paid to current news coverage of residential fires. In this paper, we assess whether residential fires are deemed to be newsworthy. If so, to what extent are key injury prevention messages (both on individual behavior and on policy approaches) currently being conveyed?

A systematic analysis of existing news coverage can provide insight into effective use of the news media for injury prevention communication. Beyond simply noting the volume of coverage, evaluation of issue prominence is important, including factors such as article placement and any associated images. Agenda setting theory has established that the prominence given to an issue by the news media influences public judgment as to its relevance.¹⁹ The news media's potential influence, however, extends well beyond simply holding up certain issues for prioritized consideration. News coverage also entails selection and framing of problems; this impacts public understanding of both the issue itself and the nature of possible solutions.¹⁴ Framing involves selecting certain aspects of a perceived reality, such that these are made more salient and promote a particular definition of the problem, as well as causal factors and/or treatment recommendations.²⁰ In this paper, we examine the extent to which news coverage of residential fires is set in a public health frame either in terms of understanding causal patterns or in terms of preventive strategies.

We anticipate that newsworthiness of fire issues and conveyance of injury prevention messages do not necessarily

go hand in hand. Rather, the primary objectives of the news media and the injury prevention community are potentially oppositional, with one field (news media) emphasizing novel and dramatic events, and the other (injury prevention) predictability and preventability.²¹ Examination of news coverage of fatal motor vehicle crashes, for example, revealed that coverage tends to focus on a discussion of blame (in 90% of articles), but not of prevention strategies (such as restraints) or environmental factors (such as icy or poorly designed roads).²¹

The specific aims of this research are to (1) describe the features of residential fire stories in daily newspapers circulating widely in the Baltimore–Washington metropolitan area and (2) describe the coverage of prevention strategies and a public health context in residential fire stories. Our ultimate goal is to engage the injury prevention community in more effective use of media advocacy towards the prevention of residential fires.

METHODS

Our news media sample included the four daily newspapers circulating in Maryland, available electronically via LexisNexis (Baltimore Sun, Washington Post, Washington Times and Annapolis Capital). These publications have a combined daily readership of over 1 150 000.²² We followed coverage for 1 year from 1 July 2004 to 30 June 2005.

We identified relevant news articles using search terms related to residential fires: fire, burn, house, inhalation and smoke. We included only those articles in which at least half of the paragraphs discussed a residential fire or fire safety, excluding, for example, pieces where a historical fire was merely mentioned in passing.

We developed an iterative coding framework drawing on both the injury prevention and media advocacy literatures, as well as the news articles themselves. This resulted in the creation of three coding categories: prominence, content and frame. Each category contained a number of variables that were applied to each article using a standardized, qualitative coding schema. The prominence variables included the newspaper section in which the article appeared, mention of fire in the headline or the first paragraph, number of words and type of article (table 1). The content variables included information provided by an arbiter (official expert or witness called upon by journalists to offer comment), mention of residential occupants, and causes and consequences of fire. Articles providing any prevalence data, fire rates or discussion of fire prevention policies were coded positively for public health context. Articles with any mention of a known prevention strategy were coded positively for prevention. As for frame, each article was coded as either episodic (focus on a single fire event) or thematic (general discussion of the issue of residential fires).

The coding system was developed collaboratively, and subsequently implemented by a single researcher (JC). Two authors (KCS and JC) conducted two rounds of inter-coder reliability checking at the end of coding development. For each article, the coding framework has 60 points of possible disagreement, and, in the first round of double-coding of 10 articles, the two coders disagreed in 11 places in total, for a total agreement of 96.9%. The coders then discussed points of disagreement and reached consensus, which was maintained in a second round of double-coding.

RESULTS

Each of the four newspapers in the study published articles pertaining to residential fires for a total of 374 in the 1-year period. Patterns of coverage were similar for 3 of the newspapers (Annapolis Capital (n=115), Baltimore Sun (n=99) and Washington Post (n=140)). The Washington Times did not cover fires as regularly, including only 20 fire-related articles over the year.

Characteristics of news coverage

In terms of the prominence of news stories focusing on residential fires, approximately 6% were published on the newspaper's front page and another 26% appeared on the first page of a section. The length of the articles varied considerably, with 42% of articles having <100 words, but 21% having >500 words. The majority of coverage was in the form of straightforward hard news reporting (83%). A further 8% was made up of brief police reports, and 6% were longer feature stories. The overwhelming majority of coverage was framed in episodic terms (91%), meaning that the coverage was driven by a single fire event. Finally, our coding structure allowed us to consider whether an expert or arbiter was called upon to provide either details or insight into the fire issue or event being presented. By far, the most commonly quoted arbiters were fire department officials, with 357 (95%) articles including a quote from a fire official, compared with just 11 quotes from police and 12 quotes by medical/public health officials. The residents themselves and their friends, families and neighbors were also called upon by journalists for comment: 104 (28%) articles included a quote from someone with a personal connection to the event being discussed.

More than half (57.5%) of the articles included some discussion of either a possible or a confirmed cause of a residential fire. The most frequently reported causes were electrical problems (wiring/electronics/small appliance) (16.6%), followed by arson (8%), kitchen fires (7.5%) and fires caused by other home ignition sources (lighters/matches/

Table 1 Article characteristics related to residential fire or residential fire prevention from July 2004 to June 2005 (n=374)

Newspaper characteristics (n=374)	Number of articles (%)
Newspaper	
Annapolis Capital	115 (30.8)
Baltimore Sun	99 (26.7)
Washington Post	140 (37.4)
Washington Times	20 (5.4)
Location of article	
Front page	21 (5.6)
1st page of a section	99 (26.5)
Other	254 (67.9)
Length of article	
<100 words	157 (42.3)
100–500 words	137 (36.4)
>500 words	80 (21.4)
Location where fire event is mentioned	
Headline	173 (46)
1st paragraph	179 (48.1)
Other*	22 (5.9)
Associated image provided	
Type of article	32 (8.6)
Hard news	309 (82.6)
Feature stories	23 (6.2)
Photo	13 (3.5)
Police report	29 (7.8)
Focus of article	
Episodic	340 (90.9)
Thematic	34 (9.1)
Source of information (arbiter)†	
Fire department	357 (95.5)
Police department	11 (2.9)
Public health/medicine professionals	12 (3.2)
Other officials	49 (13.1)
Victims/neighbors/friends	104 (27.8)

*Places other than the headline or the first paragraph of the article.

†An article can have more than one source of information (arbiter), and subcategories of source of information are not mutually exclusive.

fireplaces) (6.4%) or cigarettes (6.2%) (table 2). Other, more disparate causes such as fires due to housepaint, nail-polish remover or fires started by pets were grouped together as other and accounted for 12.8% of all reported causes. Some mention of the consequences of the fire was almost always included in the coverage, with nearly 90% of articles including some information regarding death, injury, and property loss or damage. About 9% of articles reported on the death of a person due to a residential fire, 13% included a reference to injury and over 66% of articles mentioned loss of property.

Prevention strategies and public health context

A total of 136 (36.4%) articles made some mention of at least 1 prevention strategy, and 85 (22.7%) articles provided some public health context. The most common prevention messages were discussions of smoke detectors (20.6% of all articles included some mention of smoke detectors), fire prevention education (13.6%), sprinklers (6.9%) and evacuation plans (6.4%) (table 3). The most prevalent public health contexts were discussions of building codes (12.8%), followed by city or state fire incident statistics (11.8%), as well as geographical (4.8%) and temporal (4.5%) variation in fire rates.

DISCUSSION

Our data indicate that three of our sample of four daily newspapers regularly reported on fire events, and that this coverage was often fairly prominent in terms of both length and placement. Coverage was dominated by hard news stories that were framed in an episodic manner following a recent residential fire event. The low level of coverage in the Washington Times can be taken as an indication of a distinct focus of this news outlet, suggesting that advocacy efforts are likely to be most effective when targeted towards working with specific media partners that are highly engaged with covering the issue of concern—namely, local residential fire events.

This analysis can serve as a baseline assessment of the news messages upon which explicit media advocacy interventions can be built. Previous research tells us that there is much that can be done at the policy level to provide further protection for those most at risk from residential fire injury. Although research on behavioral change research indicates that knowledge alone is rarely enough to bring about meaningful change, the will for change at the individual and collective levels begins with public awareness. Thoughtful media advocacy efforts have an important role to play in building such awareness.

The high level of news coverage can be understood partially on the basis that fires are naturally dramatic, and when they take place in someone's home, the human element that makes an event particularly newsworthy is almost undeniable. The

high level of coverage for local fire events provides a specific opportunity for targeted advocacy efforts. When expert opinion or commentary was provided, it was highly likely to come from a fire department official. The information provided was, however, usually limited to factual details on the fire event being reported, and rarely included information as to how the event might have been prevented. Such commentary also did not tend to place residential fires in a wider public health or collective frame, either in terms of understanding higher risks for residential fires among certain groups or at certain times, or in terms of policy and collective approaches to fire prevention. Working with fire officials to include these other messages in routine news reporting is one mechanism currently being developed by this research team on the basis of our findings.

Injury prevention practitioners might also serve as the bridge between the news media and people who have a special familiarity with residential fires—namely, survivors, and their friends and family. Survivors can serve as powerful advocates for prevention, but our analysis would suggest that their voice is largely absent from news-mediated discussion of fires, at least in this small sample. A possible intervention strategy would be to take the survivor advocacy approach that has proved to be so effective in other areas of injury prevention.²³ By building partnerships between fire departments, fire survivors and journalists who write about fires, the injury prevention community could serve its own communication goals and also serve as an important resource to journalists as they go about their daily work of reporting on fire events.

Another intervention approach might be to identify a specific communication objective for targeted advocacy efforts by working with all of the partners discussed previously. For example, sprinkler systems reduce the risk of dying in a residential fire by an estimated 73%, but very few US homes are currently fitted with sprinkler systems.²⁴ Therefore, injury prevention advocates might work with media, fire department and activist partners to promote inclusion of information about these devices, and the need for policy development and enforcement regarding sprinklers when a relevant event happens and a news story is written. Blows *et al*²⁵ argue that public health should always seek to frame, rather than respond to others' framing of important debates. Our analysis suggests that there is an opportunity for injury prevention to augment the framing of residential fires within a public health context and alongside discussion of explicit prevention strategies.

This study of current news coverage does not allow us to speculate as to why prevention messages are not currently included routinely in news coverage of fire events. Nevertheless, we believe that there is a clear media advocacy mandate for injury prevention practitioners and researchers to (1) learn from media gatekeepers (editors) and journalists about the news-making process; (2) partner with fire department officials and those personally affected by fires to serve as resources to ensure that injury prevention messages can be incorporated as key elements for coverage of a newsworthy issue; and (3) use the resulting news coverage as an advocacy tool to promote policy and behavioral change to reduce injury risks.

IMPLICATIONS FOR PREVENTION

Public journalism is the idea that it is possible to combine the objectives of informing the public about newsworthy events, while also helping to promote the common good.²¹ The idea is based on the premise that certain newsworthy events can serve as critical teachable moments if public health advocates work with newsmakers to ensure that a public health context and clear prevention messages augment straightforward news reporting. Communication regarding residential fires via the

Table 2 Cause and consequences of fires included in articles (n = 374)

Cause and consequences of fires	Numbers of articles (%)
Cause of fires	
Arson	30 (8)
Cigarette	23 (6.2)
Kitchen	28 (7.5)
Matches/lighters/candles/fireplace	24 (6.4)
Wiring/electronics/small appliance*	48 (16.6)
Others	159 (12.8)
Unknown	62 (42.5)
Consequences of fire	
Most severe (death)	32 (8.6)
Severe (injury)	49 (13.1)
Less severe (property loss)	250 (66.8)
No mention	43 (11.5)

*Small electronic appliances such as irons, toasters or hair dryers.

Table 3 Frequency and description of prevention strategies and public health context included in articles (n = 374)

Prevention strategies	Number of articles (%)	Public health context	Number of articles (%)
Any mention of prevention strategies	136 (36.4)	Any mention of public health context	88 (22.7)
Prevention strategies included*		Public health context included*	
Smoke detectors	70 (20.6)	Prevalence of residential fires in the city or state	44 (11.8)
Education/recommendation	51 (13.6)	Increasing prevalence of residential fires over time	17 (4.5)
Fire sprinkler	26 (6.9)	Different rate of residential fires according to economic status	3 (0.8)
Evacuation plans/strategies	24 (6.4)	Different rate of residential fires according to location within city or state	18 (4.8)
Fire extinguishers	16 (4.3)	City or state policies regarding residential fires/safety/building codes	48 (12.8)
Fire escapes	9 (2.4)	City or state policies regarding landlord responsibilities for residential fires	9 (2.4)
Others	6 (1.6)	Others	10 (2.7)

*Specific prevention strategies and public health context are not mutually exclusive. One article could be coded for mentioning multiple prevention strategies or contextualizing fires in various ways.

news media is already occurring in the form of routine reporting of fire events. We suggest that a useful intervention approach would be to embrace the idea of public journalism for fire injury prevention by establishing and strengthening partnerships between fire departments, journalists and survivors, with injury prevention professionals serving as a bridge. These media advocacy partnerships could build on the established voice and expertise of fire officials in the news arena. The objective of such efforts should be to facilitate the inclusion of prevention messages and public health context as regular features of reporting of fire events.

Key points

- Residential fires are newsworthy: fire events are regularly covered prominently in Maryland daily newspapers.
- Newspaper coverage routinely includes the causes and consequences of fires, but rarely prevention messages or a public health frame for fire events.
- Through partnership with fire departments, the news media and survivors, injury prevention can go beyond a simple augmentation of coverage to promote framing more news coverage of routine fire events in a prevention and public health context.

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