

## ABSTRACT

Newspapers have not been extensively evaluated as an injury surveillance source. We compared clippings with medical examiner records for 45 residential fire deaths and 58 drownings of children to assess extent, completeness, and accuracy of newspaper coverage. Newspapers covered 96% of the fire fatalities and 78% of the drownings and contained more information than medical examiner records on several factors, including fire cause and smoke detector presence, pool fences, warning signs, and supervision of children. (*Am J Public Health*. 1992;82:745-746)

# Newspapers: A Source for Injury Surveillance?

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## Introduction

Public health surveillance is essential for injury control. Useful data include time, place, person, injury type, causation, circumstances, medical care, and health outcomes.<sup>1</sup> Death certificates and medical examiner records are routinely used for mortality surveillance but may not provide sufficient information about prevention. Newspapers are an available, inexpensive source of potential information.<sup>2,3</sup>

This study evaluated the extent, completeness, and accuracy of coverage provided by North Carolina newspapers of childhood fatalities from fires and drownings over a 13-month period.

## Methods

By state law, all fatal injuries must be investigated by a local medical examiner and the reports filed with the North Carolina Office of the Chief Medical Examiner (NCOCME). Each file contains the death certificate, a narrative report describing the event, and, sometimes, reports of autopsy, police, and toxicology investigations.

All fatalities from residential fires and drownings among persons less than 19 years of age were identified through the NCOCME for the period January 1, 1988, through January 31, 1989.

Newspaper clippings reporting injury events during the study period were obtained from a commercial clipping service collecting all 72 daily and 186 nondaily newspapers published in North Carolina. When reports were not available from the clipping service, clippings were obtained from the University of North Carolina's newspaper library, medical examiner files, and local newspapers.

All fatal fires during the 13-month period were evaluated by interviewing local fire chiefs. The variables considered are listed in Table 1.

Newspaper clippings and medical examiner reports were matched and compared for the frequency of recording of the index variables. If a variable was reported as unknown or under investigation, it was listed as "not mentioned." The unit of analysis was the decedent, even if there was more than one death per fire or drown-

ing event. When more than one clipping was found, the combined information was used. The accuracy of newspaper reports was measured by comparing newspaper coverage and (1) the fire chief interview and the NCOCME report (for fires) and (2) the NCOCME report (for drownings).

## Results

### Extent of Newspaper Coverage

The NCOCME reported 45 residential fire fatalities of children under age 19 during the 13 months. Twenty-two children died in fires that claimed more than one life. The clipping service retrieved reports on 39 of the 45 children. An additional four reports were found in the university library collection, for a total of 95.6% (43/45) coverage.

The NCOCME identified 58 drownings of individuals less than 19 years of age. Seven children died in drowning incidents that claimed more than one life. The clipping service produced 42 reports of the 58 incidents. An additional 3 reports were found in the library, for a total coverage of 77.6%. No deaths were identified by the newspapers for which an NCOCME report was not available.

### Completeness of Newspaper Reports

Table 1 shows that, for 43 fires and 45 drownings, some information was not well covered by either source, but the newspapers were decidedly more complete with respect to a number of the variables studied. Most notably, clippings were more likely to include information about the

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This paper was submitted to the *Journal* March 19, 1991, and accepted with revisions July 18, 1991.

cause of the fire or presence of a smoke detector than was the NCOCME report. However, medical examiner reports were much more likely to include the cause of death, alcohol use by the decedent, and race. Race was never reported directly in the newspaper but could be inferred from photographs in 15% of cases.

Findings were similar for drownings. The NCOCME report was more complete on race of the decedent, alcohol involvement, purported swimming ability, and resuscitation attempts. However, newspapers included more information about child supervision and characteristics of the body of water (public ownership, warning signs, and fencing).

### Accuracy of Newspaper Reports

Newspapers and the fire chief interview agreed completely on age, sex, and race of the decedents and type of construction materials, but agreement was only 90.6% (39/43) for cause of the fire. The four disagreements resulted from the newspaper reporting a specific cause while the fire chief stated that the cause was unknown. Newspapers and medical examiner reports agreed completely on age, sex, and race of the decedent and type of water body.

### Discussion

This study suggests that newspapers may be a useful adjunct to other injury surveillance efforts. Newspapers were more complete than NCOCME reports in supplying information about the cause and circumstances of fires and presence of protective factors for both fires and drownings. On the other hand, newspapers were not good sources of information about race or the possible involvement of alcohol. Otherwise, newspapers were accurate in reporting demographic information and causes and circumstances of fires.

Two issues are of particular interest. First, our results demonstrate that for childhood fire deaths and drownings, newspapers reported 96% and 78% of the cases, respectively. However, we located these articles knowing from the NCOCME that a death had occurred. To be optimally useful for surveillance, newspapers should be able to identify cases independently. Relying only on the clipping service would have resulted in reports of 91% of the fire deaths and 72% of the drownings.

Second, this analysis revealed that there is information about protective factors that is more likely to appear in the newspaper than in official records. This finding supports the value of newspapers and signals an

	Medical Examiner (times reported, %)	Newspaper (times recorded, %)
<b>Fires</b>		
Age	100.0	100.0
Sex	100.0	100.0
Race	100.0	16.3
Time of drowning	100.0	100.0
Cause of death	100.0	53.5
Supervision of children	69.8	88.4
Home construction material	44.2	58.1
How the fire was discovered	37.6	67.4
Cause of fire	30.2	62.6
Alcohol involvement	23.2	0
Time to intervention	14.0	27.9
How fire department was contacted	11.6	44.2
Presence of smoke alarm	4.6	18.6
Presence of fire extinguisher	0	2.3
<b>Drownings</b>		
Age	100.0	100.0
Sex	100.0	100.0
Race	100.0	8.9
Location of drowning	100.0	100.0
Time of drowning	100.0	100.0
Type of water body	100.0	100.0
Alcohol presence	84.4	0
Time submerged	71.1	71.1
CPR attempt	66.6	33.3
Supervision of children (<age 16, n = 29)	65.5	79.3
Length of rescue attempt	33.1	27.7
Ability to swim (age > 3, n = 34)	25.0	13.9
Private/public property	4.4	24.4
Warning sign presence	2.2	22.2
Water area fenced in	0	18.2

Note. Percentages are based only on the cases for which both a newspaper clipping and the medical examiner record were available. CPR = cardiopulmonary resuscitation.

area in which the medical examiner system might improve documentation. In fact, items to indicate the use of life preservers, swimming ability, and the presence of smoke detectors recently have been added to the NCOCME reporting form.

Besides surveillance, the reporting of injury events has potential value in raising public awareness about injury risks and protective measures. Newspapers should be encouraged to cover injury events fully and provide detailed information about protective measures. Injury surveillance efforts should consider newspapers as a potential source of valuable supplementary information, while still focusing on improving other systems of record keeping.

This study did not attempt to assess the specific methods or costs of the clipping service per se, factors that may vary by setting. Further research could document whether these findings generalize to other less dramatic or newsworthy injury problems and whether there are systematic differences in reporting policies or practices by publisher or locale. □

### Acknowledgments

This work was supported, in part, by the University of North Carolina Injury Prevention Research Center, with funds from the Centers for Disease Control (CCR40222-04). Dr. Rainey's time was supported by the University of North Carolina Preventive Medicine Residency Program.

The authors wish to acknowledge the conceptual, editorial, and technical assistance of Dr. Shrikant Bangdiwala, Dr. Jane Brown, Dr. John Butts, Dr. Thomas Cole, Ms. Janet Heath, Ms. Mary Linzer, Dr. Lewis Margolis, Ms. Nancy Moore, Mr. Michael Patetta, Dr. Carol Reuss, Dr. Desmond Runyan, Dr. Jeffrey Sacks, and Dr. Earl Siegel.

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