



# **Estimates of Fire Injuries Treated in Hospital Emergency Departments**

**July 2002 – June 2003**

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This analysis was prepared by the CPSC staff, has not been reviewed or approved by, and may not necessarily reflect the views of, the Commission.

## **Differences between the NEISS Fire Injury Estimates and the Annual Fire Loss Estimates**

CPSC's report titled **Estimates of Fire Injuries Treated in Hospital Emergency Departments July 2002 – June 2003** provides estimates of hospital emergency department-treated fire injuries associated with consumer products as reported through the National Electronic Injury Surveillance System (NEISS). These estimates include injuries from fires attended by the fire service *as well as injuries not attended by the fire service*. Because NEISS is a probability sample, the estimates have associated confidence intervals.

The CPSC's series of annual **Residential Fire Loss Estimates** only cites fires in residential structures that were attended by the fire service, along with the resulting deaths, injuries, and property loss. The injury estimates include all civilian injuries reported by the fire service, some of which were treated in hospital emergency departments. The sources of the annual report estimates are the National Fire Protection Association's (NFPA's) annual fire loss survey and the United States Fire Administration's (USFA's) National Fire Incident Reporting System (NFIRS). NFIRS is not a probability sample; therefore confidence intervals cannot be provided for these estimates.

## Executive Summary

The U.S. Consumer Product Safety Commission (CPSC) staff\* is collecting follow-up data on fire-related injuries reported through the National Electronic Injury Surveillance System (NEISS) beginning with injuries treated on July 1, 2002. This report documents results from the first year of this new data collection process (July 1, 2002 – June 30, 2003). All cases from any of the NEISS hospital emergency departments, if they were fire-related civilian injuries, were considered to be in scope for a telephone questionnaire to learn about the cause of the fire. For injuries from fires believed to be fire department attended, fire department reports documenting fire cause also were obtained.

During this first year of data collection approximately 1,485 fire-related injuries were initially considered in scope. Follow-up information – a questionnaire, a fire report, or both - was obtained for 804 injuries, of which 628 were found to be in-scope fire injuries. The NEISS weights as well as weights for non-response and allocation of unknowns were used to produce national estimates.

The following are some highlights from the estimates for July 1, 2002 – June 30, 2003:

- There were an estimated **48,202** fire-related non-arson civilian injuries that were treated in hospital emergency departments. Of these, 21,174 injuries were estimated to be from fire department attended fires and the remaining 27,028 were estimated to be from fires not attended by the fire service.
- The overall response rate for the telephone questionnaire was 53%. Among the cases where the NEISS hospital gave CPSC staff the victim ID, the response rate was 79%. Of the non-response injury cases, 70% were cases where CPSC staff was unable to get the victim's telephone number.
- The source of heat for the fire was identified for an estimated 93% of the injuries with follow-up information.
- The 95% confidence interval on the total number of injuries (**48,202**) is (38,952, 57,453).
- There are relatively wide confidence intervals for most product-specific estimates.

There was great success in identifying the consumer product or products involved with the fire cause when the telephone questionnaire was completed. However the overall response rate for the questionnaire was low. This was caused largely by the high number of cases for which the hospitals would not release patient identification. The follow-up cases were weighted up to account for non-response but an improved response rate would reduce variance and lessen the risk of non-response bias.

Even if the response rate was improved, it is likely that for many consumer products, more than one year of NEISS data would be necessary to produce national estimates with adequate precision. It would be difficult to assess year-to-year trends for specific products in the data with relatively high variances.

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# Background

## Purpose

The purpose of the study is to use CPSC's NEISS to produce unbiased national fire injury estimates and estimates of precision involving specific consumer products. From this, determinations can be made about the effectiveness of this NEISS-linked data system to produce precise product-specific fire injury estimates.

The estimates from this study include injuries where the fire was attended by the fire department and injuries from fires not attended by the fire department. Most estimates that CPSC staff has used over the years for fire injuries, which are described below, only include injuries from fires attended by the fire service. The estimates from this study for the fire department attended fire injuries can be compared to the National Fire Incident Reporting System (NFIRS)/National Fire Protection Association (NFPA) estimates described below. The estimates for non-fire service attended fire injuries provide new information, beyond the scope of what could be estimated before.

## History

For many years CPSC staff has combined information from NFIRS and NFPA's annual survey to produce estimates for residential structure fires and associated fire losses (deaths, injuries, and property loss). The NFPA survey is a probability sample of fires attended by the fire service and gives annual national totals for fires, deaths, injuries, and property loss. It does not collect information on fire cause at the consumer product level however. NFIRS is a database of fires attended by the fire service. It is voluntary as to whether a fire department reports its cases to NFIRS – it is not a probability sample. NFIRS provides data at the product level. So, the information from the NFIRS database is weighted up to the NFPA survey to provide national annual product-level estimates. From this point forward in the report, this method of producing estimates will be referred to as the NFIRS/NFPA method and these estimates will be referred to as NFIRS/NFPA estimates.

This method of producing estimates has some drawbacks. As mentioned above, NFIRS is not a probability based sample. For this reason the product level estimates do not have associated variance estimates. This limits what can be done statistically for CPSC fire-related activities. Another drawback is that this method only gives estimates for fire injuries where the fire was attended by the fire service.

NEISS data have not been used for product-specific fire injury estimates historically because the NEISS record often does not identify the product or products involved with the fire. Generally, the victim goes immediately from the fire to the emergency room and may not know the cause of the fire as well then as it will be known later. This is particularly true for certain types of fires such as electrical fires and other fires that begin unobserved by the occupants. NEISS does consistently capture, however, if a case is fire related.

# Methods

## Data Collection

### Definition of Scope:

A case is considered in scope for this study if there was fire involvement in the cause of the injury and the fire was residential or consumer product related. Fire involvement means any smoke inhalation, burn from unintentional flames or unintentional spread of flames, or other injury that occurred as a result of a fire. All arson cases are out of scope as are occupational cases unless they involve a consumer product. Contact burns are out of scope unless there is some unintentional flame spread. Injuries are also out of scope if the source of the fire is outside the jurisdiction of the CPSC, e.g., car, boat, etc. If the source of the fire or item ignited is a consumer product then it is in scope. So, if a lighter ignites a fire inside a car, that is in scope.

### NEISS Hospitals

NEISS is comprised of a probability sample of about 100 U.S. hospitals with emergency rooms. These are stratified into five strata based on number of emergency room visits. Fire injuries reported from any of these hospitals are assigned for follow-up in this study.

Different hospitals have different policies regarding granting patient identification information. Some of the NEISS hospitals transmit patient identification information in all cases. Others require patient permission to transmit this information. Among these hospitals, some ask the patients to grant permission at the hospital while others call or write the patient after their visit to ask permission. The different methods of asking permission result in varying degrees of success. In some cases when the hospitals do not transmit victims' phone numbers, a letter is sent, such as the one in Appendix B, to patients asking them three questions to answer and mail back to CPSC. The response rate on these letters is low (4%) but the ones CPSC received are considered completed cases. The three questions ask about 1) equipment involved/heat source, 2) item first ignited, and 3) fire department attendance.

### Telephone Questionnaire

All NEISS cases with fmv (fire involvement code) = 1, 2, or 3, if they met the in-scope definition above, were automatically assigned to attempt a telephone investigation. If fmv = 1, it means there was fire involvement and it is believed the fire department attended the fire. Fmv = 2 means fire involvement but it is believed the fire department was not involved. And fmv = 3 means fire involvement and it is unknown whether the fire department was involved. All cases where a patient's phone number was obtained were given to a CPSC contractor to complete the telephone questionnaire. The interviewer questioned the victim, if the victim was an adult, or questioned parent/guardian if the victim was a child. The questionnaire (Appendix A) addressed fire cause, smoke alarm/sprinkler involvement, cause and nature of injury, treatment/hospitalization, fire department attendance, and incident address if the fire department attended. The fire cause information collected, mainly equipment involved, heat source, and item first ignited, was used to determine the consumer product or products associated with the fire.

Many cases were out of scope despite having fmv = 1, 2, or 3. Many of these cases involved fireworks that led to injuries but not fires. Some were contact burns where there was no fire, e.g., a child touching a hot pan. Sometimes it was learned before the telephone questionnaire that the case was out of scope despite having fmv = 1, 2, or 3. Other times it was not known until the interview. When this first year of data collection began in July, many fireworks cases were assigned that turned out to be out of scope. Since then, there has been increased selectivity in assigning cases.

### Fire Department Documents

As mentioned previously one of the questions asked in the questionnaire was about fire department attendance. If the victim (or parent/guardian) said that the fire department attended the fire then the injury record was transmitted to the United States Fire Administration (USFA) which had agreed to assist CPSC in collecting fire report documents. In cases where it was apparent that the role of the fire department was not to fight the fire but to act as Emergency Medical Service (EMS), the case was not transmitted to USFA. Some questionnaire non-response cases were assigned to USFA. There was much more success in collecting fire reports for completed questionnaire cases than the non-response ones.

Some of the injuries, for which USFA was not able to collect the fire report, were reassigned to CPSC field staff. Whether or not a case was reassigned to CPSC field staff depended on the reason USFA was unable to collect the report.

The fire reports collected from attending fire departments gave NFIRS fire cause information and often a general synopsis of the fire. This information can add to, confirm, conflict with, or be in lieu of information from the telephone questionnaire. When there was conflicting information between the telephone questionnaire and the fire report it was reconciled, usually with deference given to the fire report. In many cases the fire report confirmed the information in the questionnaire and provided additional fire cause information. In questionnaire non-response cases for which we obtained a fire report, the fire report was the sole source of fire cause information. There were 166 fire reports collected out of 290 transmitted. Some of the fire injury cases where a fire report was not collected were because it was learned that the fire department was not present in a fire fighting capacity but solely as EMS. There were 14 injuries for which the fire report collected was the only source of information.

### **NEISS Fire Related Injuries Final Follow-up Status**

7/1/2002 – 6/30/2003

Total	<b>1,485</b>
Injuries with Follow-up Info (In Scope)	804 (628 <sup>1</sup> )
No Patient ID Provided	488
Refusal or Failure to Reach	193

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<sup>1</sup> Eight of these cases were letters, not the full questionnaire.

## Estimation Process

### Coding

Three variables used by the fire service were coded for each follow-up injury case whether or not there was a fire report collected. The first two of these variables addressed the heat source of the fire. One of these two variables, Equipment Involved, was used if the heat source of the fire came from a form of equipment (e.g., range, water heater, grill, etc.). The other variable, Heat Source, was used if the heat source was not equipment (e.g., cigarette, match, lighter, etc.). These variables were grouped together because there tended to be one and only one product from these two variables associated with a given fire. For the few instances where there were products from both variables, priority was given to the equipment. So, if an injury was the result of a fire that was associated with a match and a grill, it counted simply as a grill fire. Products from these two variables were listed in the same tables and the individual estimates for these products add to the total since there was exactly one source of heat associated with each fire.

The third variable coded was the item first ignited by the fire. These products were different than the products that provided the source of heat for a fire. Some item first ignited products were mattresses, upholstered furniture, clothing, gasoline, etc. Not all fires had an item first ignited that was a consumer product. These products were kept separately from the heat source products in the analysis and tables of estimates since their role in the fire was different and there was much overlap between the two – a fire can be a candle fire and a mattress fire. A candle (heat source) can ignite a mattress (item first ignited).

### Weighting

There were two different sets of weights applied to the follow-up fire injuries. The first were the NEISS weights. Since NEISS is a probability sample each NEISS case represents a certain number of identical injuries across the nation. This number is the NEISS weight for that injury.

The next set of weights applied was for non-response. It was assumed that the products associated with the injuries with follow-up information were representative of those associated with injuries without follow-up information. This was based on the finding that some kinds of fires were less likely to be identified at the ER than other kinds, with the result that the distribution of the injuries without follow-up would be skewed.

### Raking<sup>2</sup> to Weight for Non-response

In computing the weights to account for the non-follow-up cases the data was stratified by hospital stratum (small, medium, large, very large, and children's hospitals) and fmv code (1, 2, and 3). This stratification produced 15 separate cells. Raking was used to inflate the follow-up injuries sum of weights to the sum of weights for all cases. A SAS macro<sup>3</sup> performed the raking, maintaining the marginal distributions of the sums of weights for the follow-up cases by stratum and fmv. The result was 15 non-response weights, one for each cell. They are not a simple division of the cell total sum of weights by the follow-up sum of weights but are close.

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<sup>2</sup> W.E. Deming, and F.F. Stephen, "One Least Squared Adjustment of a Sampled Frequency Table when the Expected Marginal Totals are Known", *Annals of Mathematical Statistics* II, 1940, pp.427-444.

<sup>3</sup> M. Battaglia, D. Hoaglin and D. Izrael, "A SAS Macro for Balancing a Weighted Sample", SAS Users Group International (SUGI) 25<sup>th</sup> Annual Conference, April 9-12, 2000, Paper #258-25.

Each injury with follow-up information not only represents identical injuries from hospitals not covered by NEISS (NEISS weight) but also represents identical injuries within NEISS where there is no follow-up information due to non-response (non-response weight). Multiplying these two weights gives the final weight used for each follow-up injury.

An example is a follow-up injury in the sample that occurred in a range fire where the range ignited the victim's clothing. The victim was treated at the ER of a hospital in the 'Very Large' stratum and the fmv code for the case was '3'. The NEISS weight for this injury was 16.6603 meaning this is how many identical injuries at emergency rooms across the country this one injury represents. The non-response weight for cases with fmv = 3 and stratum = 'Very Large' is 2.4745. This is how many NEISS injuries (both follow-up and non-follow-up) this one follow-up injury represents. So, the overall weight applied to this range fire for the estimates is the product of these two weights:

NEISS Weight \* Non-response weight = Analysis weight

$$16.6603 \quad * \quad 2.4745 \quad = \quad \mathbf{41.2257}$$

This one range/clothing fire counts as **41.2257** range/clothing fires.

#### Raking to Allocate Unknowns

There were few follow-up fire injury cases where the product or products associated with the fire were unknown. Raking was used to allocate these instances based on the known products.

#### Variance

A variance was calculated for each estimate and used to produce the 95% confidence intervals. The variance estimates were calculated based on the NEISS stratified sampling scheme, where the individual hospital is the primary sampling unit. The confidence intervals are fairly wide. This is especially true, relatively, for products with a small number of estimated annual injuries. The estimated total number of non-arson civilian fire injuries is **48,202** and the confidence interval is **(38,952, 57,453)**. More injuries in the sample would lead to narrower confidence intervals.

Numbers are rounded only to the one's place. Without confidence intervals as measures of precision, rounding might be appropriate as an acknowledgement of the inexactness of the estimates. However, with the confidence bounds included, rounding might, in some instances, skew the information.



## Results

There are four tables of estimates. For Tables 1 and 3, the estimated number of injuries is presented along with 95% confidence intervals. For Tables 2 and 4 the estimates are presented alongside the breakdown by fire service attendance and accompanying confidence intervals. The raking and allocation of unknowns was done separately for Tables 1 and 2 (heat source) and Tables 3 and 4 (item ignited).

The first two tables present estimates of injuries associated with products involved with the source of heat for the fire. Here are some items of interest from Tables 1 and 2:

- There were an estimated **48,202** fire-related non-arson civilian injuries that were treated in hospital emergency departments. Of these, 21,174 injuries were estimated to be from fire department attended fires and the remaining 27,028 were estimated to be from fires not attended by the fire service.
- Open flame products accounted for an estimated 41% of the fire injuries, cooking products were associated with 31% of the fire injuries, heating and cooling products accounted for 13%, and electrical distribution products made up 6% of the injuries.
- Ranges/ovens were the single product that accounted for the most fire injuries, with an estimated 11,731 (24% of all injuries).
- Injuries caused by fires associated with some products appear more likely to occur in fires attended by the fire service than others. An estimated 92% of the electrical distribution product injuries occurred in fires attended by the fire department, whereas only 29% of open flame product injuries were found to be from fire department attended fires.

**Table 1**  
**Estimated Number of Fire Injuries Treated in Emergency Departments by**  
**Heat Source Involved, 7/1/02 – 6/30/03**  
(n = 628)

<b>Consumer Product</b>	<b>Injuries</b>	<b>95% Confidence Interval</b>
<b>Total</b>	<b>48,202</b>	<b>(38,952, 57,453)</b>
<b>Cooking Products</b>	<b>14,748</b>	<b>(10,878, 18,617)</b>
Grill	1,647	(645, 2,648)
Range, Oven	11,731	(8,567, 14,894)
Refrigerator, Freezer	365	(0, 732)
Cooking Products, Other	1,006	(277, 1,735)
<b>Heating &amp; Cooling Products</b>	<b>6,474</b>	<b>(4,383, 8,566)</b>
Air Conditioner	371	(0, 914)
Fireplace, Chimney	370	(0, 786)
Central Heating	533	(91, 976)
Boiler	491	(0, 1,050)
Local Fixed Heater	2,537	(1,120, 3,954)
Portable Heater	919	(210, 1,628)
Water Heater	1,054	(382, 1,725)
Other Heating & Cooling Products	199	(0, 516)
<b>Open Flame Products</b>	<b>19,998</b>	<b>(15,355, 24,642)</b>
Smoking Materials	3,963	(2,247, 5,680)
Match	1,939	(952, 2,926)
Cigarette Lighter	3,270	(1,672, 4,868)
Candle	3,412	(2,054, 4,770)
Other Open Flame <sup>4</sup>	7,414	(4,784, 10,044)
<b>Electrical Distribution Products</b>	<b>3,090</b>	<b>(1,658, 4,522)</b>
Electrical Wiring	331	(0, 682)
Outlet, Receptacle	1,203	(117, 2,289)
Lamp, Lighting	518	(0, 1,049)
Cord, Plug	710	(69, 1,352)
Electric al Distribution Products, Other	327	(77, 577)
<b>Miscellaneous Products</b>	<b>1,745</b>	<b>(839, 2,651)</b>
Lawn Mower	699	(108, 1,291)
Torches	653	(57, 1,249)
Washer/Dryer	393	(3, 783)
Other	2,147	(1,004, 3,289)

Source: U.S. Consumer Product Safety Commission/EPHA, from data obtained from the National Electronic Injury Surveillance System.

<sup>4</sup> These are predominantly bonfires, campfires, trash fires, and the like. There is considerable overlap between these cases and the 'Flammable liquid, gas' cases in Tables 3 and 4.

**Table 2**  
**Estimated Number of Fire Injuries Treated in Emergency Departments by**  
**Heat Source Involved and Fire Department Attendance, 7/1/02 – 6/30/03**  
(n = 628)

<b>Consumer Product</b>	<b>Injuries</b>	<b>FS Attended</b>	<b>FS Attended 95% CI</b>	<b>Not FS Attended</b>	<b>Not FS Attended 95% CI</b>
<b>Total</b>	<b>48,202</b>	<b>21,174</b>	<b>(16,042, 26,306)</b>	<b>27,028</b>	<b>(21,073, 32,984)</b>
<b>Cooking Products</b>	<b>14,748</b>	<b>7,292</b>	<b>(4,692, 9,891)</b>	<b>7,456</b>	<b>(5,117, 9,796)</b>
Grill	1,647	373	(0, 811)	1,274	(467, 2,081)
Range, Oven	11,731	6,556	(4,168, 8,945)	5,174	(3,453, 6,896)
Refrigerator, Freezer	365	321	(0, 685)	44	(0, 131)
Cooking Products, Other	1,006	42	(0, 123)	964	(237, 1,692)
<b>Heating &amp; Cooling Products</b>	<b>6,474</b>	<b>3,621</b>	<b>(1,909, 5,332)</b>	<b>2,853</b>	<b>(1,428, 4,279)</b>
Air Conditioner	371	371	(0, 914)	0	-
Fireplace, Chimney	370	141	(0, 417)	229	(0, 540)
Central Heating	533	173	(0, 370)	361	(0, 768)
Boiler	491	491	(0, 1,050)	0	-
Local Fixed Heater	2,537	1,363	(213, 2,512)	1,174	(420, 1,929)
Portable Heater	919	495	(12, 978)	424	(0, 964)
Water Heater	1,054	432	(62, 802)	622	(43, 1,201)
Other Heating & Cooling Products	199	155	(0, 460)	44	(0, 130)
<b>Open Flame Products</b>	<b>19,998</b>	<b>5,840</b>	<b>(3,493, 8,187)</b>	<b>14,158</b>	<b>(10,344, 17,973)</b>
Smoking Materials	3,963	1,647	(749, 2,545)	2,316	(1,106, 3,526)
Match	1,939	817	(88, 1,547)	1,122	(415, 1,828)
Cigarette Lighter	3,270	887	(81, 1,693)	2,383	(978, 3,788)
Candle	3,412	1,165	(443, 1,887)	2,247	(1,161, 3,333)
Other Open Flame	7,414	1,323	(153, 2,494)	6,091	(3,742, 8,439)
<b>Electrical Distribution Products</b>	<b>3,090</b>	<b>2,852</b>	<b>(1,468, 4,235)</b>	<b>238</b>	<b>(0, 526)</b>
Electrical Wiring	331	331	(0, 682)	0	-
Outlet, Receptacle	1,203	1,086	(0, 2,177)	117	(0, 284)
Lamp, Lighting	518	396	(0, 876)	122	(0, 360)
Cord, Plug	710	710	(69, 1,352)	0	-
Electrical Distribution Products, Other	327	327	(77, 577)	0	-
<b>Miscellaneous Products</b>	<b>1,745</b>	<b>718</b>	<b>(155, 1,281)</b>	<b>1,027</b>	<b>(282, 1,773)</b>
Lawn Mower	699	325	(0, 695)	374	(0, 838)
Torches	653	0	-	653	(57, 1,249)
Washer/Dryer	393	393	(3, 783)	0	-
Other	2,147	852	(129, 1,574)	1,295	(429, 2,160)

Source: U.S. Consumer Product Safety Commission/EPHA, from data obtained from the National Electronic Injury Surveillance System.

Note: Confidence intervals are not given where there are no estimated injuries.

Tables 3 and 4 present estimates for consumer products that were the item first ignited by a fire. The estimates in Tables 3 and 4 do not add to the total number of injuries for two reasons: 1) in some instances the item first ignited was not a consumer product and 2) the estimates for some of the item first ignited products were too small to list. There were few unknowns among the follow-up cases for the product first ignited in the fire. Raking was used to allocate the unknown item ignited injuries. Estimates for 73% of the total fire injuries are covered in this table. The items first ignited for the nearly 13,000 injuries not covered in this table range from structural member or framing to cabinetry to appliance housing or casing to human skin or hair. Some highlights from the Tables 3 and 4 estimates:

- Flammable liquids and gases were the item first ignited in 32% of the total fire injuries.
- Floor covering, upholstered furniture, and mattress, bedding fire injuries are predominantly from fire department attended fires.
- Clothing – worn and flammable liquid, gas fire injuries are predominantly from fires not attended by the fire department.

**Table 3**  
**Estimated Number of Fire Injuries Treated in Emergency Departments by**  
**Selected Products First Ignited, 7/1/02 – 6/30/03**  
(n = 628)

<b>Item First Ignited</b>	<b>Injuries</b>	<b>95% Confidence Interval</b>
Floor Covering or Rug, Carpet, Mat	1,056	(0, 2,217)
Upholstered Furniture	779	(90, 1,468)
Mattress, Bedding	3,038	(1,495, 4,581)
Clothing – Worn	3,895	(2,506, 5,283)
Clothing – Not Worn	841	(309, 1,373)
Flammable Liquid, Gas <sup>5</sup>	15,429	(11,542, 19,317)
Cooking Materials	8,372	(5,866, 10,878)
Trash	1,822	(714, 2,930)

Source: U.S. Consumer Product Safety Commission/EPHA, from data obtained from the National Electronic Injury Surveillance System.

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<sup>5</sup> Many of these fires involve gasoline. Other fires involved lighter fluid or aerosols.

**Table 4**  
**Estimated Number of Fire Injuries Treated in Emergency Departments**  
**by Selected Products First Ignited and Fire Department Attendance,**  
**7/1/02 – 6/30/03**  
(n = 628)

<b>Item First Ignited</b>	<b>Injuries</b>	<b>FS Attended</b>	<b>FS Attended 95% CI</b>	<b>Not FS Attended</b>	<b>FS Not Attended 95% CI</b>
Floor Covering or Rug, Carpet, Mat	1,056	1,056	(0, 2,217)	0	-
Upholstered Furniture	779	779	(90, 1,468)	0	-
Mattress, Bedding	3,038	2,060	(859, 3,262)	977	(226, 1,729)
Clothing – Worn	3,895	960	(211, 1,708)	2,935	(1,770, 4,100)
Clothing – Not Worn	841	725	(211, 1,240)	116	(0, 321)
Flammable Liquid, Gas <sup>6</sup>	15,429	3,409	(1,749, 5,068)	12,021	(8,682, 15,359)
Cooking Materials	8,372	4,495	(2,719, 6,272)	3,876	(2,324, 5,428)
Trash	1,822	900	(25, 1,774)	922	(196, 1,648)

Source: U.S. Consumer Product Safety Commission/EPHA, from data obtained from the National Electronic Injury Surveillance System.

Note: Confidence intervals are not given where there are no estimated injuries.

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<sup>6</sup> These injuries include a lot of fires involving gasoline. There are also fires involving lighter fluid, and aerosols.

## Conclusions

For this study, we found that when there was follow-up information (a telephone questionnaire, a fire department report, or both) there was success at identifying consumer products associated with the fire. A product or products were identified for more than 94% of the follow-up fire injury cases in the sample. However, there was a low overall rate of success in obtaining follow-up information. For the telephone questionnaire, the overall response rate was 53%. This was largely due to the inability to get the victim's telephone number and name from some of the hospitals. In approximately 33% of the in-scope fire injury cases CPSC staff could not get the victim's telephone number. There was some success in collecting fire reports – 166 collected out of 290 assigned. However, a vast majority (92%) of these were fire injury cases where there was a completed questionnaire. So, as expected, the fire reports were useful in improving the quality of our follow-up information but not very effective in increasing the number of follow-up injuries in the sample.

Estimates of the number of emergency room treated injuries for totals as well as for individual products were classified as fire department attended injuries or fire department not attended injuries. This distinction is useful for comparing fire department attended injury estimates to NFIRS/NFPA estimates. The estimates from the NEISS are consistently higher than from NFIRS/NFPA. This discrepancy may be because some emergency department visits are captured by NEISS but not by NFIRS, namely where a victim goes to the emergency department after the fire department has left the scene of the fire. Estimates for injuries from fires not attended by the fire service have not been previously reported. These estimates should provide useful information when considering strategies for addressing product related fires.

In order to improve the precision of the national estimates for individual products, it will be necessary to have more follow-up cases. This could be achieved through a significantly increased response rate in the telephone questionnaire or having the estimates cover more than one year. In an effort to increase the response rate some respondents are now paid for responding to the questionnaire. However, even with the increase in response rate that should result from this, it is likely that combining years will be necessary for many product estimates.

**Appendix A**  
**Telephone Questionnaire**  
**Fire-Related Injuries Treated in Hospital Emergency Rooms**  
**U. S. Consumer Product Safety Commission**

**Instructions for the Interviewer:**

The Consumer Product Safety Commission wants to reduce the number of fire injuries that involve consumer products. The short text provided in NEISS hospital emergency room records often describes the immediate event (e.g., a cut from a window while escaping a fire) rather than the cause of the event (e.g. a fire that started in the furnace). The purpose of this questionnaire is to explore the cause of the fire in detail.

This questionnaire is to be used only for fire incidents, defined as those involving smoke inhalation, unintended flames or smoke, or unintended spread of flames or smoke. If it is found that the incident did not meet this definition, e.g., if someone burned his finger on a cigarette lighter flame, the interview should be terminated. If the incident involved injury from fireworks but did not meet the definition of fire ( “no” response to question P2), terminate this questionnaire. Continue the interview with the fireworks questionnaire when one is attached. Similarly, if the incident involved carbon monoxide without meeting the definition of fire terminate this questionnaire and continue with the carbon monoxide questionnaire when one is attached. If in doubt whether a fire occurred, continue with this fire injury questionnaire.

1. Before attempting a telephone interview, please review the NEISS emergency room information on the assignment sheet. If the injured person died, return the assignment to CPSC and do not conduct an interview.
2. Record all attempts to contact the victim/respondent in the box on the cover sheet. If an interview could not be completed, return all documentation to CPSC including a list of the names and numbers attempted and the address of the victim or guardian.
3. The first question is to help you identify and talk to the person who knows the most about the fire. That may or may not be the person treated at the NEISS hospital. If the person who knows the most about the fire is younger than age 16, talk to the guardian instead. If the person who knows the most about the fire is age 16 or 17, obtain permission from the parent or guardian to interview that person, and invite the parent or guardian to listen to the interview if possible.
4. Text in bold should be read to the respondent, including examples if they are in bold. Instructions to the interviewer and skip patterns appear in brackets. **The interviewer should not read the multiple choice responses to the respondent unless specified.** Record all responses to multiple choice questions by circling the appropriate letter or number response. When the response is "other," record the specific response given, in the words of the respondent.

5. Record all responses to open-ended questions in the space provided or in an attachment if needed. Record the responses as close to verbatim as possible. If the respondent doesn't know the answer, record "don't know". If the question is not applicable in a given case, record "NA".
6. If you have questions, please contact:  
David Miller (301) 504-0470, x1258 or Linda Smith (301) 504-0470, x 1275.



Task Number \_\_\_\_\_

## Fire-Related Injuries Treated in Hospital Emergency Rooms

### Record of Calls

Date	Day of Week	Time	Result*	Comment
		am/pm		
		am/pm		
		am/pm		
		am/pm		
		am/pm		
		am/pm		
		am/pm		
		am/pm		
		am/pm		
		am/pm		

Suggested Call Back Time : \_\_\_\_\_ Day \_\_\_\_\_ Time \_\_\_\_\_ am/pm

**\*Result**

C = Completed

CB = Call Back

LB = Line Busy

WN = Wrong Number

NWN= Non-working Number

NER = No Eligible Respondent

AM/NM = Answering Machine -no message left

AM/ M = Answering Machine - message left

R = Refused

NA = No answer

## Fire-Related Injuries Treated in Hospital Emergency Rooms

TASKNO Task Number \_\_\_\_\_

Instructions: If the injured person is under 18 years of age, ask for the parent or guardian.

### Introduction:

**Hello. May I speak with \_\_\_\_\_?**  
**I'm calling for the Consumer Product Safety Commission. I understand that you recently received an injury caused by a fire. We are presently performing a study on fires and would like to ask you some questions about the fire.**

Be prepared to answer questions with the following information:

- that the identity will be kept confidential
- that the purpose of the study is to prevent future incidents and injuries
- there is a particular interest in what caused the fire

### **P1. Are you familiar with how this incident happened?**

1. Yes
2. No→ **Is there someone else who is more familiar with the details of the incident?**
  - a. Yes→ **May I speak with him/her?**  
Record name, and phone number if different

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[If named person is available, repeat Introduction and P1.]

[If named person is not available, ask ]**When would be a good time to contact him/her? \_\_\_\_\_**. Thank you for your help.

- b. No→ **Thank you for your help.**

**P2. We are particularly interested in learning the causes of fires that involved smoke inhalation, unintended flames or smoke, or unintended spread of flames or smoke. Did any of these things happen?**

1. Yes
2. No [If the product code was fireworks (1313), continue with the fireworks questionnaire, **if one is attached**, and enter a checkmark here \_\_\_\_\_.

If the comment field cites CO or carbon monoxide, continue with the carbon monoxide questionnaire, **if one is attached**, and enter a checkmark here\_\_\_\_\_.

If neither questionnaire is attached, terminate and say **Since there was no fire, we won't need any more information from you, thank you for your help.** ] Interview terminated

**P3. The information shows that \_\_\_\_\_ is a (male/female) who was age \_\_\_\_\_ at the time of the incident. Is this correct?**

1. Yes, all correct
2. Some not correct→ **Which part is not correct?** [enter correct information in box below]
3. Don't know

Record corrected information here

NEWAGE

Corrected age\_\_\_\_\_

NEWSEX

Corrected sex\_\_\_\_\_

Begin Interview

Record the following:

RESPOND

Who is the respondent?

1. Injured person
2. Parent or guardian of injured person
3. Other person, specify relationship \_\_\_\_\_

SUMM

**1. Can you briefly describe the incident that resulted in your/ name of victim's injury?**

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If the description indicates that a fire did not occur, either switch to the fireworks questionnaire or the carbon monoxide questionnaire, as appropriate, or say →**Since there was no fire, we won't need any more information from you, thank you for your help.** [Interview terminated]

NOADDINJ

**2. Was anyone else injured in this incident?**

1. Yes →**How many people?** \_\_\_\_\_ [response will be referred to for Q. 61]
2. No
3. Don't know

NOADDTH

**3. Did anyone die in this incident?**

1. Yes →**How many people?** \_\_\_\_\_ [response will be referred to for Q. 64]
2. No
3. Don't know

INCDATE

**4. What was the date of the fire?** (month, day, year) \_\_\_\_\_

TIME  
AMPM

**5. What time of day did it happen?** \_\_\_\_\_ (hour) \_\_\_\_\_ (a.m./p.m.)  
(noon is p.m., midnight is a.m.)

FDATTND **6. Did the fire department come?**

1. Yes
2. No [skip to Q. 9]
3. Don't know [skip to Q. 9]

FDNAME **7. Can you tell me the name of the fire department?** (explore specific jurisdiction, Baltimore City, Baltimore Co., etc.)

1. Name  
\_\_\_\_\_
2. Don't know
3. Refused [skip to Q. 9]

FIREADD **8. We would like to contact the fire department to find out if they investigated the fire cause. Can you tell me the address where the fire occurred?**

\_\_\_\_\_  
\_\_\_\_\_

SEEFIRE **9. Now I would like to ask about how the fire started. Did you see the fire start?**

1. Yes
2. No

EQHTSRC **10. Can you describe the heat source or equipment involved in starting the fire, for example, a stove, heater, cigarette, cigarette lighter, match, fireplace, open bonfire, etc.?**

[If the incident described in Q. 1 involved a friendly fire (a fire ignited for an intended purpose such as cooking, heating, burning trash, etc.) probe for the equipment/item involved in unintended fire spread rather than the product (match/lighter) used to light the friendly fire. For example, list the gas grill rather than the match used to light the grill.]

1. Yes, specify. Record as close to verbatim as possible.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. Don't know [skip to Q. 21]

Interviewer: If the item in Q. 10 was not a manufactured product, e.g. a bonfire, skip to Q. 12.
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BRAND **11. Can you tell me its brand or model name? I can wait while you get it.**  
1. (specify) \_\_\_\_\_  
\_\_\_\_\_

2. Don't know

HEATTYP **12. What kind of power or fuel did the [heat source in Question 10] \_\_\_\_\_ use?**  
1. Electricity [Continue with Q. 13]  
2. Liquid fuel, includes gasoline [Skip to Q. 14]  
3. Gaseous fuel, e.g., natural gas [Skip to Q 15]  
4. Solid fuel [Skip to Q. 16]  
5. Other, specify \_\_\_\_\_ [skip to Q. 17]  
6. Don't know [skip to Q. 17]  
7. Not applicable [skip to Q. 18]

ELECTYP **13. What was the source of electricity, household current or batteries?**  
1. Household current [skip to Q. 17]  
2. Batteries [skip to Q. 17]  
3. Other, specify \_\_\_\_\_ [skip to Q.  
17]  
4. Don't know [skip to Q. 17]

LIQFUTYP **14. What type of liquid fuel was involved?**  
1. Gasoline [skip to Q. 17]  
2. Kerosene [skip to Q. 17]  
3. Alcohol [skip to Q. 17]  
4. Fuel oil [skip to Q. 17]  
5. Lighter fluid [skip to Q. 17]  
6. Lamp oil [skip to Q. 17]  
7. Other (specify) \_\_\_\_\_ [skip to Q. 17]  
8. Don't know [skip to Q. 17]

GASTYP **15. What type of gaseous fuel was involved?**  
1. Natural gas [skip to Q. 17]  
2. LP or propane gas [skip to Q. 17]  
3. Butane [skip to Q. 17]  
4. Other (specify) \_\_\_\_\_ [skip to Q. 17]  
5. Don't Know [skip to Q. 17]

SOLFUTYP

**16. What type of solid fuel was involved?**

- 1. Unprocessed wood ( cut trees, lumber, firewood)
- 2. Wood pellets
- 3. Artificial fireplace logs
- 4. Coal
- 5. Charcoal
- 6. Other, specify\_\_\_\_\_
- 7. Don't know

PORTSTAT

**17. Was this heat source portable (easily moved), or stationary (installed or difficult to move)?**

- 1. Portable, easily moved
- 2. Stationary, installed, difficult to move
- 3. Other, describe\_\_\_\_\_
- 4. Don't know

MALF

**18. Do you have any reason to believe the fire started (or spread) because the heat source didn't work as intended?**

MALFCAUS

- 1. Yes→ **please describe**

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- 2. No
- 3. Other, specify\_\_\_\_\_
- 4. Don't know

FLAMLIQ

**19. Were flammable liquids such as gasoline or kerosene involved (e.g., gasoline being used to clean something)?**

- 1. Yes, **please describe circumstances**

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- 2. No

NARRHEAT **20. Is there anything else you want to tell me about the heat source?**

1. Yes,

specify \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. No

If the incident involved a friendly fire that got out of control such as a cooking fire, a fire in a fireplace or an open bonfire, continue with Q. 21. Otherwise skip to Q. 22.

ITEM1

**21. Now I would like to ask you about what caught fire. Can you tell me what was the first thing to catch fire that was unexpected?**

1. Yes [specify, skip to Q. 23]

\_\_\_\_\_  
\_\_\_\_\_

2. No flame spread [skip to Q. 30]

3. Don't know [skip to Q. 24]

ITEM1

**22. Now I would like to ask you about what caught fire. Can you tell me what was the first thing to catch fire?**

1. Yes [specify]

\_\_\_\_\_  
\_\_\_\_\_

2. No flame spread [skip to Q. 30]

3. Don't know [skip to Q. 24]

MATER1

**23. What was this item made of, for example, fabric, plastic, paper, etc.?**

1. \_\_\_\_\_ [Skip to instructions before Q. 26].

2. Don't know [Skip to instructions before Q. 26].



**24. Even if you're not sure what ignited first, can you tell me the things that were most involved in ignition and spread of the fire?** [enter as "Item" in table below]

2. Don't know [skip to Q. 28]

ITEM2:5	MATER2:5
Item	Material

**25. Can you tell me what these things were made of, for example, fabric, plastic, etc?** [enter as "Material" in table above]

Interviewer:  
 If clothing was cited in Q. 21, 22 or Q. 24, but the specific type of clothing was not stated, continue with Q. 26. Otherwise skip to Q. 27.

TYPCLOTH **26. You said that clothing was ignited. What type of clothing was it? For example, a T-shirt, pajamas?** [If victim was a child, probe for size of garment, i.e., child or adult]\_\_\_\_\_

NARRITEM **27. Is there anything else you want to tell me about the things that burned?**

1. Yes, specify

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2. No

CHILD **28. Was the fire started by a child playing with a heat source? For example, a lighter, match, heater, etc?**

1. Yes
2. No [skip to Q. 30]
3. Don't know [skip to Q. 30]

CHILDAGE **29. How old was the child at the time of the fire? \_\_\_\_\_years \_\_\_\_\_months**  
[If more than one child was present and the respondent doesn't know which one started the fire, enter age of the older child]  
2. Don't know

STRUCT **30. Now I would like to ask about where the incident occurred. Did it occur in, or involve, a structure or building of some sort?**  
1. Yes  
2. No, specify location (yard, park, street, etc)\_\_\_\_\_ [skip to Q. 47]  
3. Other, specify\_\_\_\_\_ [skip to Q. 47]  
4. Unknown [skip to Q. 47]

STRUCUSE **31. What kind of structure was it, for example, single family residence, apartment building, dormitory, hotel, etc.?**  
1. 1 or 2 family residence, with or without an attached garage, include mobile home  
2. Multi-family structure, including condo, apartment, townhouse, etc [skip to Q. 33]  
3. Other residential- dormitory, group housing, hotel, etc(Specify)\_\_\_\_\_  
4. Other commercial/industrial building (specify type -office, store, manufacturing plant, etc)\_\_\_\_\_ [ skip to Q. 47]  
5. Camper, recreational vehicle [skip to Q. 47]  
6. Shed, detached garage [skip to Q. 47]  
7. Other (specify)\_\_\_\_\_ [skip to Q. 47]  
8. Don't know [skip to Q. 47]

MOBILE **32. Was it a mobile structure such as a mobile home or manufactured home?**  
1. Yes, specify  
type\_\_\_\_\_

2. No  
3. Don't know

AREA

**33. What room or area did the fire incident start in?**

1. Kitchen
2. Bedroom
3. Living room, family/recreation room, dining room
4. Bathroom, lavatory
5. Storage room, closet
6. Unfinished basement, crawl space, attic
7. Space between walls, floors, etc
8. Attached garage
9. Exterior, including porch, deck, wall, or roof
10. Other (specify)\_\_\_\_\_
11. Don't know [skip to Q. 35]

FLAMSPRD

**34. Did the flames spread to other rooms or areas?**

1. Yes
2. No [skip to Q. 36]
3. Other, specify\_\_\_\_\_ [skip to Q. 36]
4. Don't know [skip to Q. 36]

NOROOM

**35. How many rooms or areas were damaged by flames?\_\_\_\_\_**

ALARM

**36. Did the structure have an installed smoke alarm at the time of the fire?**

1. Yes
2. No [skip to Q.40]
3. Don't know [skip to Q. 40]

SOUND

**37. Did a smoke alarm sound/signal during the fire?**

1. Yes
2. No [skip to Q. 39]
3. Other, specify\_\_\_\_\_ [skip to Q. 39]
4. Don't know [skip to Q. 39]

WARN

**38. Did a smoke alarm provide the first warning of the fire?**

1. Yes (skip to Q. 40)
2. No (skip to Q. 40)
3. Unknown (skip to Q. 40)

SMOKRECH

**39. Do you think smoke reached a smoke alarm?**

1. Yes
2. No
3. Don't know

- SPRNKLR **40. Did the structure/building have a sprinkler system at the time of the fire?**
1. Yes
  2. No [skip to Q. 44]
  3. Other, specify \_\_\_\_\_ [skip to Q. 44]
  4. Don't know [skip to Q. 44]

- SPRNOPE **41. Did the sprinkler system operate?**
1. Yes [skip to Q. 43]
  2. No
  3. Other, specify \_\_\_\_\_ [skip to Q. 44]
  4. Don't know [skip to Q. 44]

- WHYNOT **42. Do you know why the sprinkler didn't operate?**
- \_\_\_\_\_ [skip to Q. 44]

- EXTING **43. What effect did the sprinkler system have on the fire?**
1. Extinguished completely
  2. Partially extinguished
  3. No effect
  4. Other, specify \_\_\_\_\_
  5. Don't know

- ESTLOSS **44. What was the estimated property damage from this fire, in dollars?**
1. \$ \_\_\_\_\_ [If no damage, enter 0.]
  2. Don't know

- MOVE **45. Did you have to relocate your residence either temporarily or permanently due to fire damage?**
1. Yes, temporarily
  2. Yes, permanently [skip to Q. 47]
  3. No [skip to Q. 47]
  4. Don't know [skip to Q. 47]

- TIMEMOVE **46. How long did you live elsewhere?**
1. Still in a temporary location
  2. Less than 1 week
  3. 1-2 weeks
  4. 3-4 weeks
  5. Greater than 4 weeks
  6. Unknown

INJCAUS

**47. Now I would like to ask you about your/name of victim's injury. What was the immediate cause of your/name of victim's injury, for example, smoke inhalation, too close when the fire started, injured while putting out the fire, jumped or fell while escaping, etc.?**

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INJDESC

**48. Please describe your/ name of victim's injury or injuries in the fire.**

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BURN

**49. How did the doctor characterize the burns you/victim's name received in the fire?**

[Probe: Did the doctor specify the percent of body surface burned?  
Did the doctor specify whether the burns were first, second or third degree burns?  
Did the doctor specify whether the burns were partial thickness or full thickness burns?]  
Record responses

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ADDTREAT

**50. Did you/victim's name receive any additional treatment by a medical professional, such as a doctor or nurse, other than your treatment in the emergency room?**

1. Yes
2. No [skip to Q. 59]
3. Don't know [skip to Q. 59]

WHATTRET

**51. What kind of treatment did you/ victim's name receive from them? [Check all that apply]**

1. Check-up, cleaning, new bandage, remove stitches
2. Plastic or reconstructive surgery, skin grafts
3. Other surgery
4. Pressure garments
5. Physical therapy
6. Other (specify) \_\_\_\_\_
7. Don't know

- WHERTRET **52. Where did you/ victim's name get this treatment?** [Check all that apply]
1. Same (NEISS) hospital where you /victim's name first went to the emergency room.
  2. Another hospital , specify \_\_\_\_\_
  3. Walk-in clinic
  4. Private physician
  5. HMO
  6. At home
  7. Other, specify \_\_\_\_\_
  8. Don't know

- HOSP **53. Were you/victim's name hospitalized at any time due to the incident?**
1. Yes
  2. No (Skip to Q. 57)
  3. Don't Know (Skip to Q. 57)

- HOSP1 **54. Where were you/victim's name hospitalized?** [Enter in column 1 of the table that follows Q. 56.] (Include NEISS hospital if appropriate.)  
 HOSP2 \_\_\_\_\_  
 HOSP1 \_\_\_\_\_  
 HOSP2 \_\_\_\_\_  
 2. Don't Know

- FACTYP1 **55. What kind of facility was it?** [Enter in column 2 of the table that follows Q. 56.  
 FACTYP2 Repeat Q. 55 for each hospital.]
1. Burn hospital or hospital with a special burn ward
  2. Other hospital
  3. Rehabilitation / nursing home
  4. Other (specify) \_\_\_\_\_
  5. Don't know

- NIGHTS1 **56. How many nights did you/victim's name stay at the hospital/medical facility?**  
 NIGHTS2 [Enter in Column 3 of the table below. Include length of stay for all hospitals, whether they were in NEISS or not.]
1. Record number of nights in \_\_\_\_\_ HOSPITAL1 \_\_\_\_\_ HOSPITAL2
  2. Don't know

[Enter 'Y' in Column 4 if victim is still in hospital.]

HOSP1 HOSP2	FACTYP1 FACTYP2	NIGHTS1 NIGHTS2	Still Hospitalized? (Y/N)
Hospital	Type of Facility	Nights of Stay	

FUTTRET **57. Do you think you/victim's name will need more treatment?**

1. Yes
2. No [skip to Q. 59]
3. Don't know [skip to Q. 59]

TYPEOTHR **58. What kind of treatment?**

1. (specify) \_\_\_\_\_
2. Don't know

DAYSLOST **59. Did this injury cause you /victim's name to lose any whole or partial days of work (or school)?**

1. Yes
2. No [skip to instruction box before Q. 61]
3. Unknown [skip to instruction box before Q. 61]

NOLOST **60. How many days were lost? \_\_\_\_\_ Work/school? (circle one)**  
WORKSCH **How many hours (if partial days) were lost ? \_\_\_\_\_ Work/school? (circle one)**

HRSLOST  
WORKSCH

Refer back to number of other injuries reported in Q. 2. If another person received a non-fatal injury, continue with Q.61. If only a death occurred, skip to Q. 64.

INJAGE **61. You said earlier that someone else/ other people were injured in this fire. Can you tell me the age and sex of each person?**

INJSEX

1. Yes [Enter in appropriate column of the table below. Repeat Q. 62 and 63 for each person]
2. Refused [skip to Q. 64]
3. Don't know

INJNATR **62. Please describe the injuries (first person listed) \_\_\_\_\_ received, for example, burns, smoke inhalation, cuts, etc?**

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INJPLACE **63. Was he/she treated at (NEISS hospital)\_\_\_\_\_?**

1. Yes
2. No
3. Don't know

INJVICNO	INJAGE	INJSEX	INJNATR	INJPLAC
Victim Number	Age	Sex	Nature of Injury	Treated at Same NEISS Hospital? (Yes/No/Unknown)
Victim 1				
Victim 2				
Victim 3				
Victim 4				
Victim 5				

Refer back to number of deaths reported in Q. 3. If a death was reported, continue with Q.64. Otherwise, skip to Q. 66.

DTHAGE **64. You indicated earlier that someone died in this fire. Can you tell me the age**  
 DTHSEX **and sex of each person who died?**

[Enter in table below. Repeat question 65 for each fatality.]

DTHPLAC **65. Was (first victim)\_\_\_\_\_ taken to (name of NEISS hospital)\_\_\_\_\_?**

DTHVICNO	DTHAGE	DTHSEX	DTHPLAC
Victim Number	Age	Sex	Taken to Same Hospital? (Yes, No, Unknown)
Victim 1			
Victim 2			
Victim 3			
Victim 4			
Victim 5			



NARRGEN

**66. Is there anything else you would like to tell me about the fire or about the injuries that occurred?**

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**May we contact you again if somehow we have overlooked something and need additional information? \_\_\_\_\_**

**Thank you for your time. Your information has been very helpful.**

**Date of completed interview \_\_\_\_\_**

## Appendix B

### Letter Sent to Victims

Date  
Re: (taskno)

xxx  
xxx  
xxx.

Dear :

I was sorry to learn recently that you were injured in a fire-related incident. We learned of this injury through our cooperation with (name of hospital). The U.S. Consumer Product Safety Commission (CPSC) is a federal agency that works with hospitals throughout the U.S. to prevent fire deaths and injuries. CPSC uses information on fire cause to prevent deaths and injuries by recalling hazardous products, working with manufacturers to ensure safe products, and educating the public about fire safety. A brochure describing CPSC is enclosed.

We would greatly appreciate it if you would fill in the blanks below that describe the fire that caused your injury. You may return this letter in the enclosed postage-paid envelope. If you wish to tell us more about the fire, you may use the back of this letter. If you have any questions about this letter, please contact me at 1-800-8095, extension \_\_\_\_\_, or by email at \_\_\_\_\_ . Your response will be used for statistical purposes only and your identity will be removed from all records.

Thank you for your help in preventing fire casualties.

Sincerely,

XXXXXXXXXX  
XXXXXXXXXX

Equipment or heat source involved in starting the fire\_\_\_\_\_

What was the first, unexpected, thing that caught fire?\_\_\_\_\_

Did the fire department come?\_\_\_\_\_