



## Hazard Screening Report

### Home Communications, Entertainment, and Hobby

(514, 519, 529-533, 536, 545-547, 549-550, 552, 555-559,  
561-566, 571-573)

*This report and all others in this series are general overviews, which use data taken directly from the CPSC data files for the purpose of comparison among the products. No recoding or adjusting of the data is performed. For this reason, estimates of injuries provided in this report will differ from estimates presented in other documents produced by Epidemiology staff working in specific program areas. The figures presented here are not intended to compare to other reports outside this series of hazard screening reports.*

*The views expressed in this report are those of CPSC staff, have not been reviewed or approved by, and may not reflect the views of, the Commissioners.*

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Craig O'Brien, M.S.  
George Rutherford, M.S.  
Alberta Mills, B.A.  
Natalie Marcy, B.S.

EXCERPTED BY PETITION  
RULE MAKING ADMIN. PROC.  
WITH PORTIONS REMOVED.

## **The Hazard Screening Project**

As an aid in setting priorities, CPSC staff is preparing this series of Hazard Screening Reports. Each report covers a group of related products, such as nursery equipment, housewares, etc.

These reports follow a common format that allows readers to compare the risk for different types of products within a given category. Significantly, CPSC staff has also developed a measurement tool that allows comparisons of risks from products in different categories. This feature, called "Maximum Addressable Cost Estimates," is explained more fully below. CPSC managers plan to use this information to set priorities for efficient use of resources.

Each Hazard Screening Report contains information on the estimated number of injuries and deaths associated with the type of products covered in that report. A graph shows the frequency of emergency-room treated injuries over time. This is followed by a pie chart showing the distribution of injuries by the source of the hazard, such as mechanical, fire, electrical, chemical and other. CPSC staff also estimates the total "cost" to society of each type of product. This includes the cost of injuries, deaths and property damage associated with the products.

To facilitate comparisons of risk between different types of products, CPSC staff has developed Maximum Addressable Cost Estimates. These build on the concept of "addressable" cost. Simply put, the "addressable" cost is the portion of the total cost that could possibly be reduced by some action that CPSC could take. Lots of consumer injuries are not addressable. For example, if a boy trips over a rake in the driveway, any injury he suffers could be associated with the category of Yard and Garden Equipment. But it is very unlikely that such injuries could be prevented by changing the design of rakes. By eliminating these unaddressable costs from consideration, we are able to focus on what's left -- the costs that we might be able to do something about. The name "Maximum Addressable Cost Estimates" is intended to emphasize that these estimates are upper limits of the cost that might be successfully addressed. It should also be stressed that the term does not necessarily mean that there is any existing method or technology for reducing the costs. For a more detailed explanation of this subject, please refer to the individual Hazard Screening Reports.

CPSC staff plans to complete 20 reports in 2005. As each report is completed there will be an active link to it in the list below. All reports are in Portable Document Format (PDF). The 20 reports that will comprise the complete set are:

- Home Workshop Apparatus, Tools and Attachments
- Yard and Garden Equipment
- Toys
- Nursery Products
- Children's Outdoor Activities and Equipment
- Major Team Sports
- Injuries to Persons 65 and Older
- Housewares and Kitchen Appliances
- Recreational Cooking and Camping Products

Home Communication, Entertainment and Hobby Products  
General Household Appliances  
Home Furnishings and Fixtures & Home Alarm,  
Escape and Protection Devices  
Sports (minus major team sports)  
Personal Use Items  
Heating, Cooling and Ventilating Equipment  
Packaging and Containers for Household Products  
Miscellaneous Products  
Home Structures and Construction Materials  
Home and Family Maintenance Products – Household Chemicals  
Drugs

These reports will be useful to individuals and organizations who are seeking reliable information about estimated death, injuries, and costs associated with consumer products and to CPSC's staff and Commissioners who need objective data to identify candidates for future activities to reduce deaths and injuries.

## CAVEAT!

The report addresses the question of addressability of injuries by attempting to identify those injuries which are incidental and not addressable by mandatory or voluntary standards or by other action which the U.S. Consumer Product Safety Commission (CPSC) could take. Those injuries that remain are referred to as maximum addressable.

To know the actual addressability of the hazards associated with a product usually requires a detailed study of the problem, and the product. This level of study is not feasible for this type of overview report. What we do instead is try to eliminate those injuries and deaths which involve the product only marginally or incidentally. The remaining injuries are then run through CPSC's Injury Cost Model, to produce an estimate of *maximum* addressable costs.

**The maximum addressable cost estimate does not necessarily represent the injury and death costs that the CPSC might actually be able to prevent each year through some type of action. It represents only a target population from which any successful prevention will have to come.**

For example: If a person is hit by a falling television, but we have no information about whether the subject accidentally knocked the television over, or if the television fell because the stand it was on suddenly collapsed, we would count that injury as in the maximum addressable category. It may not be addressable. We just don't have enough information to rule it out.

Maximum addressable injury estimates include every case that we could not clearly rule out as incidental. They do not represent the number or percent of injuries that could actually be prevented.

In addition, addressability definitions are based on review by Epidemiology staff using information available at the time each report is prepared. These determinations should be considered general estimates for agency planning purposes, not definitive staff evaluations of whether a specific type of hazard might be prevented. The fact that a given hazard associated with a product was not considered addressable in one of these reports should not be construed as indicating that that hazard should never be reconsidered or addressed.

## **Introduction**

This report provides overall injury and death figures associated with the category of Home Communication, Entertainment and Hobby Products. The first information presented is a summary of the injury, death and cost data for the entire class of products. A trend graphic (figure 1) is presented which shows the frequency of estimated emergency room-treated injuries since 1997. This is followed by a chart (figure 2) showing the distribution of the injuries for this class of products by energy source of the hazard, i.e., mechanical, fire, electrical, chemical, or other. There is also a summary table, which shows the injuries, deaths, and costs associated with each product group. This report is one of a series of hazard screening reports. Each report provides information in a similar format to allow product and hazard comparison, both within and among the reports.

# **Home Communications, Entertainment, and Hobby Products**

## **Individual Product Categories**

Arts and Crafts

Music Receiving and Playing

Antennas

Musical Instruments

Office Machines

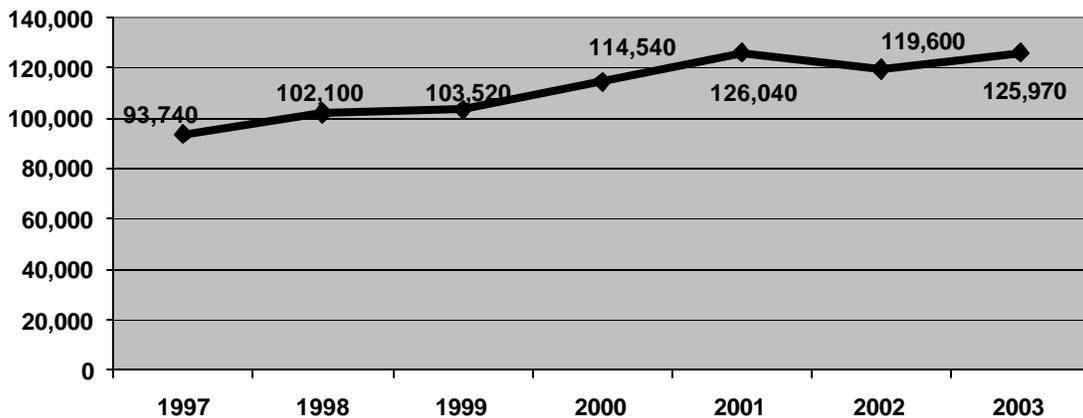
Television Equipment

Telephones and Optical

**Overview: Home Communications, Entertainment, and Hobby  
(514, 519, 529-533, 536, 545-547, 549-550, 552, 555-559, 561-566, 571-573)**

ER Treated Injuries 2003	125,970	Percent of Households	n/a
Medically Treated Injuries 2003	331,010	Number of Products in Use	n/a
Percent of ER Treated Hospitalized	4.44%	Estimated Useful Life	n/a
Deaths 2000	16	Estimated Retail Price Range	n/a
Number of Incident Reports 2003	72	Death Costs (Millions)	\$80
Cost of Medically Treated Injuries (Millions)	\$6,468.0	Total Known Costs (Millions) <sup>1</sup>	\$6,548.0

**Figure 1: Estimated Emergency Room Treated Injuries Associated with Home Communications, Entertainment, and Hobby, 1997 - 2003**

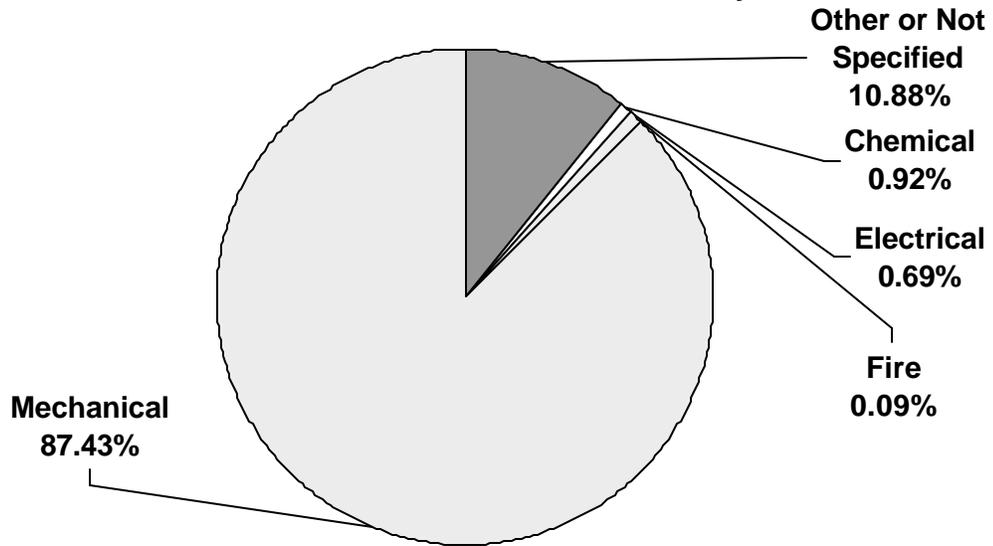


Source: National Electronic Injury Surveillance System (NEISS), 1997 – 2003

From 1997 to 2003, the estimated number of emergency room-treated injuries increased by 32,230. This is a statistically significant change (P = 0.0001).

<sup>1</sup> This total represents an index rather than an actual single year estimate of costs, because injury costs are based on 2003 and death costs are based on 2000. These are the most recent years for which complete data on each of these cost items was available.

**Figure 2. Distribution of Emergency Room-Treated Injuries by Energy Source of the Hazard for Home Communications, Entertainment, and Hobby, 2003**



Source: National Electronic Injury Surveillance System (NEISS), 2003

## **Deaths**

For 2000, CPSC has reports of 16 deaths associated with these products. Four of the deaths were included in the maximum addressable category (see page 14 for description of this category). Two of the deaths included in this category were electrocutions, one was a strangulation of a 10 month old by cables from a radio monitor, and one was from the product falling over and crushing the victim. See Table 2 for the number of deaths in each product category included in the maximum addressable category.

## Overview

The increase of 32,230 injuries over the 7-year period, 1997 – 2003, was a statistically significant increase ( $p = 0.0001$ ).

Table 1 provides a summary of all the product groups examined for this report. This table provides information on the number of emergency room-treated injuries, the number of medically-treated injuries, the percentage of the emergency room-treated injuries that resulted in admission to the hospital, the number of incident reports received, the number of deaths reported, the number of products of each type in use, the costs associated with deaths and medically-treated injuries, and the total of these two cost estimates.

### Addressability

While it is useful to know the number of injuries, deaths, and related costs associated with a product, it is also important to have an estimate of how much of the associated social cost might actually be addressed through some action. Many of the injuries treated in emergency rooms that were related to telephones and optical products may not be addressable because the injury had only incidental product involvement. To know the actual addressability of the hazards associated with a product usually requires detailed study of the problem and the product. This level of study is not feasible for this type of overview report. What we have done is to identify through case by case review that portion of the injury and death costs that is likely not addressable. Maximum addressable costs are then generated by CPSC's Injury Cost Model<sup>2</sup> using the remaining injuries.

**The maximum addressable cost estimate does not necessarily represent the injury and death costs that the CPSC might actually be able to prevent each year through some type of action. It represents only a target population from which any successful prevention will have to come.**

The reason for doing this kind of review is to identify situations such as the following example and allow us to focus on the areas where CPSC action could have some effect.

For instance, the telephones and optical category ranks second on total costs but fourth in maximum addressable costs. Most of the injuries associated with this class of products had only incidental product involvement. Examples included injuries while rushing to answer the phone or while talking on the phone, but not directly related to the telephone. There is very little action CPSC could take to reduce these types of injuries, so they are not included in the maximum addressable category.

The staff reviewed the narratives included in National Electronic Injury Surveillance System (NEISS) injury reports, and reviewed the death reports.<sup>2</sup> Because the NEISS narratives are brief and often do not provide much detail, cases were categorized as “not addressable” only if it was clear that the injury was incidental or not related to the product. If, for example, a subject was hit by a falling television, but we had no information about whether the subject accidentally

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<sup>2</sup> See Methodology Section for a description of these databases.

knocked the television over, or if the television fell because the stand it was on suddenly collapsed, we counted that injury as in the maximum addressable category. The death reports often had more information, allowing for better determination of addressability.

To control for the possibility that there may be a difference between costs associated with addressable injuries and costs associated with non-addressable injuries, the addressable injuries were run through the Injury Cost Model. This provides both maximum addressable cost estimates for emergency room-treated injuries and medically-attended injuries. Deaths were also reviewed and determined to be in either the not-addressable or maximum addressable category, and were valued at \$5 million each. This value of \$5 million for each death is consistent with current economic literature which usually expresses the value as ranging from \$3 million to \$7 million. For ease of tabulation, we have used the midpoint of this range. The maximum addressable cost estimate for medically-attended injuries is added to the maximum addressable cost estimate for the deaths to obtain the total maximum addressable cost estimate. Table 2 shows the percentage of medically-attended injuries included in the maximum addressable category for each product group. It also shows how many of the deaths reported were included in the maximum addressable category.

Overall, after applying this process of review of the data to the entire category of Home Communications, Entertainment, and Hobby Products, we find that the total maximum addressable injury and death cost is \$1.5 billion, out of a total cost associated with these products of \$6.5 billion, which is about 22.3%<sup>3</sup> maximum addressable. Note that the percentage of maximum addressable injuries is different than the percentage of maximum addressable costs. The cost estimates are derived from a number of variables associated with each injury<sup>4</sup>, so two cases may have the same weight but different cost estimates. Thus, the cost estimates do not have a one-to-one relationship with the injury estimates.

Figure 3 shows the index<sup>5</sup> of estimated injury and death costs for each of the product categories and the estimated maximum addressability of those costs.

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<sup>3</sup> Based on the more precise totals provided in Table 3.

<sup>4</sup> See Methodology Section for more description of how the cost estimates are computed.

<sup>5</sup> This total represents an index rather than an actual single year estimate of costs, because injury costs are based on 2003 and the death costs are based on 2000. These are the most recent years for which complete data on each of these cost items was available.

**Table 1: Product Summary Table – Injury, Death, and Cost Estimates**

Product	Codes	ER Injuries	All Medically Treated Injuries	Hosp.%	Incident reports	DTHS	# of Products in Use	Death Costs	Med. Trtd. Injury Costs	Total Known Costs
		2003	2003	2003	2003	2000	(millions \$)	(millions \$)	(millions \$)	(millions \$)
Arts and Crafts	514, 532, 533, 536, 564	4,680	11,360	2.3%	16	0	n/a	\$0	\$184.3	\$184.3
Music Receiving and Playing	530, 531, 545-547, 555, 556, 559, 563, 573	19,730	47,410	0.9%	109	4	637.7 <sup>6</sup>	\$20	\$776.8	\$796.8
Antennas	552, 558, 561	1,840	4,500	5.6%	8	2	n/a	\$10	\$67.4	\$77.4
Musical Instruments	565, 566	8,590	23,460	1.7%	6	0	n/a	\$0	\$389.0	\$389.0
Office Machines	557, 571	19,700	50,790	6.3%	255	1	280-375	\$5	\$1,036.3	\$1,041.3
Television Equipment	519, 572	53,470	144,890	3.5%	222	5	227 <sup>7</sup>	\$25	\$2,956.6	\$2,981.6
Telephones and Optical	529, 549, 550, 562	18,270	49,350	10.7%	56	4	441 <sup>8</sup>	\$20	\$1,063.1	\$1,083.1
Total		174,050 <sup>9</sup>	424,460	4.44%	672	16	n/a	\$80	\$6,468.0	\$6,548.0

N/A – Not available, n/a- not applicable, there is no actual product to estimate number in use or product life  
 Descriptions of how these estimates were derived can be found in the Methodology Section. Costs are in 2002 dollars.

<sup>6</sup> Does not include recording media. Includes stereo component systems in use. Each system contains multiple components.

<sup>7</sup> Televisions only.

<sup>8</sup> Telephones only.

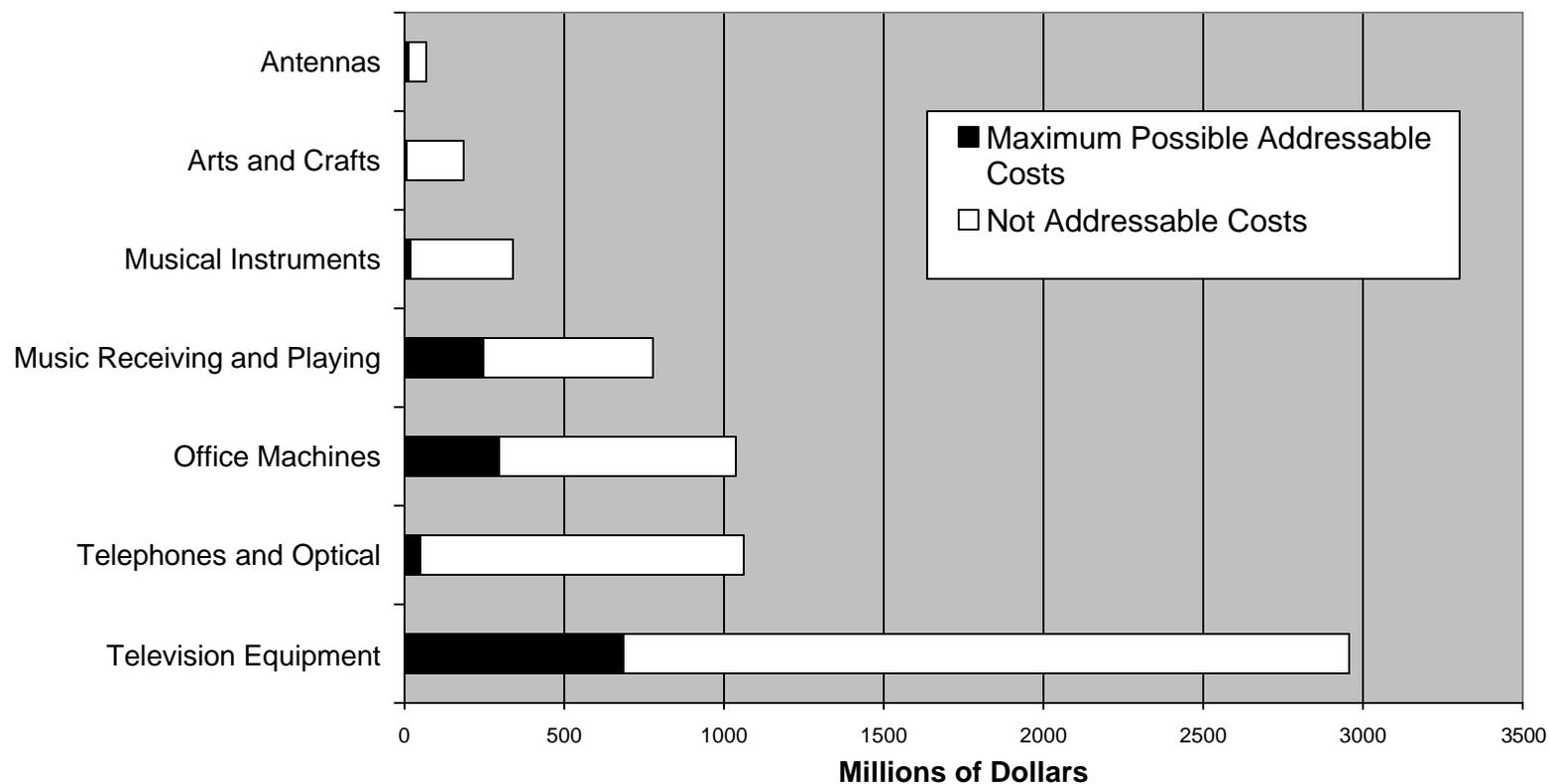
<sup>9</sup> Some cases appear in more than one category. Thus, numbers may not add to totals.

Table 3 lists the product groups ranked in descending order by the Total Injury and Death Costs Index. This table also shows the total maximum addressable cost for each product group. For those product groups where there was an estimate of number of products in use, the maximum addressable cost per unit was calculated by dividing the maximum addressable cost estimate by the number of products in use. Rankings of the product groups on totals costs, maximum addressable costs, and maximum addressable cost per unit are also provided.

There are two products which have hazard patterns for which agency activity may be appropriate:

- **Televisions and television stands:** Staff is concerned about the number of injuries relating to product instability, but notes that standards requirements addressing stability that took effect in 2001 have not had time to make a significant impact on the injury data. Staff recommends reviewing this product code no earlier than late 2009 to assess the impact of the 2001 standards requirements.
- **Telephones:** Elderly consumers face a risk of injury from tripping over telephone cords. Staff recommends consideration of an information campaign to address this issue.

**Figure 3. Estimated Cost Index, in Millions of Dollars, Home Communications, Entertainment, and Hobby, by Total Costs**



Source: National Electronic Injury Surveillance System (NEISS), 2002, Death Certificate database (DCRT), 2000

NOTE: This estimate of maximum addressability does not necessarily represent the number of injuries or deaths or costs that the CPSC might actually be able to prevent each year through some type of action. It represents only a target population from which any successful prevention will have to come.

The data presented in this graphic are also contained in Table 3 under the headings “Total injury and death costs” and “Total maximum addressable costs”

**Table 2: Product Hazard Addressability**

<b>Product</b>	<b>Codes</b>	<b>Percentage of injuries included in Maximum Addressable</b>	<b>Maximum Number of Addressable Deaths/ Total Deaths Reported</b>
Arts and Crafts	514, 532, 533, 536, 564	6.39%	0/0
Music Receiving and Playing	530, 531, 545-547, 555, 556, 559, 563, 573	30.54%	1/4
Antennas	552, 558, 561	32.36%	1/2
Musical Instruments	565, 566	7.90%	0/0
Office Machines	557, 571	35.89%	0/1
Television Equipment	519, 572	28.79%	2/5
Telephones and Optical	529, 549, 550, 562	18.26%	0/4
<b>Total</b>		<b>24.98%</b>	<b>4/16</b>

The percentages presented in this table are the percents of injuries, not costs, included in the maximum addressable category. These percentages cannot be directly compared to maximum addressable costs because the costs, while deriving from the same cases, take into account a number of variables, not just case weight. For more information on how these cost estimates are derived, refer to the methodology section at the end of this report.

In the two pages that follow, the maximum addressable definitions for each product category are presented. While reading the injury/death narratives to determine addressability, hazard patterns were also coded. The hazard patterns determined to be not addressable were identified and those that remained make up the maximum addressable definitions.

## **Hazard Patterns Defined as Maximum Addressable for Each Class of Products - Injuries**

Arts and Crafts: getting caught in the product, choking hazards, products falling over, cuts from sharp edges.

Music Receiving and Playing: getting caught in the product, unspecified contact with the product, shocks and electrocutions, fire hazards, products falling over, children pulling products over on themselves, cuts from sharp edges.

Antennas: unspecified contact with the product, products falling over, sharp edges.

Musical Instruments: getting caught in the product, unspecified contact with the product, cuts from sharp edges.

Office Machines: getting caught in the product, choking hazards, unspecified contact with the product, shocks and electrocutions, fire hazards, ingestion of foreign bodies, products falling over, cuts from sharp edges, cuts to children from paper shredders, muscle strains from extended use.

Television Equipment: unspecified contact with the product, shocks and electrocutions, products falling over, children pulling products over on themselves, cuts from sharp edges, television stands collapsing.

Telephones and Optical: unspecified contact with the product, shocks and electrocutions, getting caught in the product, getting struck by lightning, products falling over, cuts from sharp edges, burns from hot surfaces, muscle strains from extended use.

## **Hazard Patterns Defined as Maximum Addressable for Each Class of Products – Deaths**

Music Receiving and Playing: strangulation.

Antennas: electrocution.

Television Equipment: electrocution, products falling over.

**Table 3 - Calculation of Indices using Cost Estimates from Injury Cost Model, Death Certificates File, and Estimates of Number of Products in Use.**

Title	Medically Attended Injury Costs (Millions)	Total Death Costs (Millions)	Total Injury and Death Costs (Millions)	Total Maximum Addressable Costs (Millions)	Rank on Total Costs	Rank on Maximum Addressable Costs	Products in Use (Millions)	Maximum Addressable Costs per Unit	Rank on Maximum Addressable Costs per Unit
Arts and Crafts	\$184.3	\$0	\$184.3	\$7.2	6	7	n/a	n/a	n/a
Music Receiving and Playing	\$776.8	\$20	\$796.8	\$252.1	4	3	637.7 <sup>10</sup>	\$0.40	3
Antennas	\$67.4	\$10	\$77.4	\$20.8	7	5	n/a	n/a	n/a
Musical Instruments	\$389.0	\$0	\$389.0	\$18.6	5	6	n/a	n/a	n/a
Office Machines	\$1,036.3	\$5	\$1,041.3	\$299.6	3	2	280-375	\$0.80-\$1.07	2
Television Equipment	\$2,956.6	\$25	\$2,981.6	\$695.7	1	1	227 <sup>11</sup>	\$3.01	1
Telephones and Optical	\$1,063.1	\$20	\$1,083.1	\$49.3	2	4	441 <sup>12</sup>	\$0.11	4
Total	\$6,468.0	\$80	\$6,548.0	\$1,343.3					

These “total injury and death costs” estimates and “total maximum addressable costs” estimates are indices, not actual estimates of cost and expected injury cost reduction. This is because injury cost estimates and addressability estimates are based on 2003 emergency room-treated injury reports, and death cost estimates are based on deaths reported which occurred in 2000. Estimates of number of products in use are also imprecise estimates. These cost figures were developed, using the data available, to provide indices for the purpose of comparison. They do not represent an actual estimate of the costs associated with any of the product groups for a specific year. Costs are in 2002 dollars.

<sup>10</sup> Does not include recording media. Includes stereo component systems in use. Each system contains multiple components.

<sup>11</sup> Televisions only.

<sup>12</sup> Telephones only.

## Methodology

### NEISS

The Commission operates the National Electronic Injury Surveillance System (NEISS), a probability sample of 98 U.S. hospitals with 24-hour emergency rooms (ERs) with more than six beds. These hospitals provide CPSC with data on all consumer product-related injury victims seeking treatment in the hospitals' ERs. Injury and victim characteristics, along with a short description of the incident, are coded at the hospital and sent electronically to CPSC.

Because NEISS is a probability sample, each case collected represents a number of cases (the case's *weight*) of the total estimate of injuries in the U.S. The weight that a case from a particular hospital carries is associated with the number of hospitals in the U.S. of a similar size. NEISS hospitals are stratified by size based on the number of annual emergency-room visits. NEISS comprises small, medium, large and very large hospitals, and includes a special stratum for children's hospitals.<sup>13</sup>

### CPSC's Death Certificate Database

CPSC purchases death certificates from all 50 states, New York City, the District of Columbia and some territories. Only those certificates in certain E-codes (based on the World Health Organization's International Classification of Diseases ICD-10 system) are purchased. These are then examined for product involvement before being entered into CPSC's death certificate database. This is not a statistical sample and therefore cannot be used to estimate the number of deaths in the U.S. associated with each product. The number of deaths for each product is at least a minimum count. To obtain a count of fatalities associated with each product category, the death certificate data was combined with the deaths found in the IPII database (discussed below). The cases were then reviewed to eliminate duplicates and determine addressability.

Death certificate collection from the states takes time. Data for 2001 and 2003 were not complete when this report was prepared.

### CPSC's Injury or Potential Injury Incident File (IPII)

IPII is a CPSC database containing reports of injuries or potential injuries made to the Commission. These reports come from news clips, consumer complaints received by mail or through CPSC's telephone hotline or web site, Medical Examiners and Coroners Alert Program (MECAP) reports, letters from lawyers, and similar sources. While the IPII database does not constitute a statistical sample, it can provide CPSC staff with guidance or direction in investigating potential hazards. Since cases in this database may come from a variety of sources, some cases may be listed multiple times. To obtain a more accurate count of the number of reported incidents associated with each product, they were reviewed to eliminate duplicates.

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<sup>13</sup> Kessler, Eileen and Schroeder, Tom. The NEISS Sample (Design and Implementation). U.S. Consumer Product Safety Commission. October 1999.

## CPSC's Injury Cost Model

The Injury Cost Model (ICM) is a computerized analytical tool designed to measure the direct and indirect costs associated with consumer product-related injuries. In addition to providing a descriptive measure of injury hazards in monetary terms, the ICM is also used to estimate the benefits of regulatory actions designed to reduce consumer product injuries and to assist the Commission in planning, budgeting, and evaluating projects.

The ICM is structured to measure the four basic categories of injury costs: medical costs, work losses, pain and suffering, and product liability and legal costs. Medical costs include doctor and hospital-related costs as well as costs for diagnostic procedures, prescription drugs, equipment, supplies, emergency transportation, follow-up care, and administrative costs. Both the initial treatment costs and the costs of long term care are included in the medically-treated injury costs.

Work-related losses represent the value of lost productivity, the time spent away from normal work activities as the result of an injury. Work-related losses include both the short-term losses resulting from being absent from work and the long-term losses resulting from permanent partial or total disability and their impact on lifetime earnings. They also include the value of work lost as a result of caring for injured children, the value of housework lost due to an injury, and the loss to the employer resulting from the disruption of the workplace.

Pain and suffering represents the intangible costs of injury, and is based on jury verdicts for consumer product-related injuries. Product liability and legal costs represent the resources expended in product liability litigation. These costs include the costs of administering the product liability insurance system (including the plaintiff's legal costs and the costs of defending the insured manufacturer or seller), the costs of claims investigation and payment, and general underwriting and administrative expenses; however, medical, work loss, and pain and suffering compensation paid to injury victims and their families is excluded, thus avoiding double counting.

The ICM estimates the costs of injuries reported through the NEISS, a national probability sample of hospital emergency departments. The injury cost estimates depend on a number of factors, and vary by the age and sex of the injured person, the type of injury suffered, the body part affected, and whether or not the victim was hospitalized, held for observation, transferred, or treated and released. The ICM also uses empirically derived relationships between emergency department injuries and those treated in other settings (e.g. doctor's offices, clinics) to estimate the number of injuries treated outside hospital emergency departments and the costs of those injuries.

A number of databases are used to calculate the four cost categories. National discharge data and discharge data from six states are used to estimate the costs of hospitalized injuries. Data from the Department of Defense and several National Center for Health Statistics surveys dealing with costs of treatment in different medical settings are used to calculate medical costs for injuries where the victim is treated and released from the emergency department or treated in a clinic or doctor's office. Other major data sources include the Annual Survey of Occupational Illnesses and Injuries and the Detailed Claims Information (DCI) database for work loss estimates; and the Jury Verdicts Research data for pain and suffering estimates. Product liability and legal costs are derived analytically from insurance industry information and several studies of product liability.

To determine the maximum addressable cost estimate, the injury narratives were read to determine which would not be addressable<sup>14</sup>. Maximum addressable costs were then generated by the Injury Cost Model using the remaining injuries.

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<sup>14</sup> See page 7, the discussion on addressability for more information on this process.