



# Toy-Related Deaths and Injuries Calendar Year 2013

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☒ CPSA 510(h)(1) CLEARED for PUBLIC

☒ NO MFRS/PRVTBLRS OR  
PRODUCTS IDENTIFIED

☐ EXCEPTED BY: PETITION  
RULEMAKING ADMIN. PRCDG

☐ WITH PORTIONS REMOVED: \_\_\_\_\_

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*4/5/14*

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## Executive Summary

In this report, U.S. Consumer Product Safety Commission (CPSC) staff presents the latest available statistics on deaths and emergency department-treated injuries associated with toys. For toy-related deaths and injuries, it is important to note that although a toy was associated with many of the incidents, the toy was not necessarily the cause of the death or injury. Additionally, due to delays in death certificate reporting, fatality information for 2011, 2012 and 2013 is not yet complete.

### Reported Fatalities in Calendar Year 2013

- CPSC staff received nine reports of toy-related deaths that occurred in the 2013 calendar year among children younger than 15 years old. Moreover, all nine victims were younger than 12 years of age.
- Riding toys were associated with two (22 percent) of the nine reported deaths in 2013.
- Most toy-related deaths in 2013 were due to asphyxiation (seven deaths—including one possible asphyxiation case).

### Emergency Department-Treated Injuries in Calendar Year 2013

- In 2013, there were an estimated 256,700 toy-related injuries treated in U.S. hospital emergency departments.
- There is not a statistically significant trend in the estimated number of toy-related injuries from 2009 to 2013, for all individuals, children younger than 15 years, children 12 years of age or younger, or children younger than 5 years.
- A plurality (43 percent) of the estimated emergency department-treated injuries are classified as lacerations, contusions, or abrasions. Forty-four percent of the estimated injuries were to the head and face area, the most commonly affected area of the body.
- Males accounted for 148,100 (58 percent) of the estimated toy-related injuries in 2013.
- Ninety-six percent of the emergency department-treated, toy-related injury victims were treated and released.
- Of the 256,700 estimated toy-related, emergency department-treated injuries, an estimated 188,400 (73 percent) happened to children younger than 15 years of age; an estimated 178,100 (69 percent) occurred to children 12 years of age or younger; an estimated 83,700 (33 percent) happened to children younger than 5 years of age.
- For children 12 years of age or younger and children younger than 15 years old, nonmotorized scooters continued to be the category of toys associated with the most injuries (27 percent and 28 percent, respectively) in 2013. There is no statistically significant trend in the estimated number of injuries associated with nonmotorized scooters in the last 5 years for children in these two age groups.

## Introduction

This report provides updated summary information on toy-related fatalities for the years 2011 and 2012, and the report gives detailed information on toy-related fatalities for 2013. These fatality counts are based on reports obtained by CPSC staff from the CPSC Injury and Potential Injury Incident file (IPII), Death Certificate File (DTHS), In-Depth Investigations (INDP), and the National Electronic Injury Surveillance System (NEISS). In addition, this report presents the estimated emergency department-treated injuries associated with toys for the 2013 calendar year and the injury estimates from 2009 to 2013, based on the NEISS. In Appendix A, historical estimated toy-related emergency department-treated injuries from 1999 to 2013 are given, along with their 95 percent confidence intervals. Appendix B lists the NEISS product codes used to generate this report.

## Toy-Related Deaths<sup>1</sup>

Fatalities of children younger than 15 years of age, as reported to CPSC staff from 2011 to 2013, are summarized in Table 1. The reported death totals for each year are listed at the top of the table, with each year's reported deaths detailed by the type of toy with a parenthetical description of the hazard in the rows below. Due to delays in death certificate reporting, fatality information for 2011, 2012 and 2013 is not yet complete. The data from 2011 and 2012 have been updated based on six new incident reports received by CPSC staff during 2013—one fatality happened in 2011, and five fatalities occurred in 2012. Thus, the data differ from the reported fatality tabulations detailed in the previous memorandum for the calendar year 2012.<sup>2</sup> The six fatalities that occurred in 2011 and 2012, but reported in 2013, involved children 12 years of age or younger. The toys involved in these fatalities were: a powered riding toy; a balloon; a marble; a plastic hot dog toy; a stuffed animal toy; and a water gun. Toys that are associated with more than one fatality between 2011 and 2013 are listed in Table 1 to highlight the toys (and associated hazards). For other types of toys associated with only one fatality across the given years, the information is summarized in the final row of Table 1. Fatalities are included where a toy was present and, based on statements by investigators, police, family members, or medical examiners, may have played a contributing role in the death.

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<sup>1</sup> These fatalities do not represent a sample of known probability of selection. They may not include all of the toy-related deaths that occurred during the time period, in part, because at the time of data extraction, death certificate reporting was 94 percent, 86 percent, and 41 percent complete for 2011, 2012, and 2013, respectively.

<sup>2</sup> Y. Tu, "Toy-Related Deaths and Injuries, Calendar Year 2012," CPSC, November 2013.

**Table 1: Reported Toy-Related Deaths Among Children Younger Than 15 Years of Age  
2011–2013<sup>3</sup>**

| Type of Toy (Hazard)                                                                                    | 2011 <sup>4</sup>                   |                                 | 2012 <sup>4</sup>                   |                                 | 2013                                |                                 |
|---------------------------------------------------------------------------------------------------------|-------------------------------------|---------------------------------|-------------------------------------|---------------------------------|-------------------------------------|---------------------------------|
|                                                                                                         | Children 12 Years of Age or Younger | Children 13 and 14 Years of Age | Children 12 Years of Age or Younger | Children 13 and 14 Years of Age | Children 12 Years of Age or Younger | Children 13 and 14 Years of Age |
| <b>TOTAL</b>                                                                                            | <b>18</b>                           |                                 | <b>16</b>                           |                                 | <b>9</b>                            |                                 |
| <b>Sub Total</b>                                                                                        | <b>17</b>                           | <b>1</b>                        | <b>16</b>                           | <b>0</b>                        | <b>9</b>                            | <b>0</b>                        |
| Balloons (airway obstruction, aspiration, asphyxiation, choking)                                        | 5                                   |                                 | 3                                   |                                 | 1                                   |                                 |
| Tricycles (drowning, fall)                                                                              | 2                                   |                                 | 5                                   |                                 |                                     |                                 |
| Nonmotorized scooters (motor vehicle involvement)                                                       | 1                                   | 1                               | 2                                   |                                 | 1                                   |                                 |
| Stuffed toys/doll/doll accessory/toy figure (suffocation, asphyxia, choking, drowning)                  |                                     |                                 | 2                                   |                                 | 3                                   |                                 |
| Powered riding toys (mechanical asphyxia, neck injury/asphyxiation)                                     | 1                                   |                                 |                                     |                                 | 1                                   |                                 |
| Plastic toy foods (choking)                                                                             |                                     |                                 | 1                                   |                                 | 1                                   |                                 |
| Marbles (asphyxia, choking)                                                                             |                                     |                                 | 1                                   |                                 | 1                                   |                                 |
| Other toys with a single reported fatality in the year (asphyxiation, drowning, choking, fall, hanging) | 8                                   |                                 | 2                                   |                                 | 1                                   |                                 |

Source: In-Depth Investigations (INDP), Injury and Potential Injury Incidents (IPII), Death Certificates (DTHS), and the National Electronic Injury Surveillance System (NEISS) from 1/1/2011 to 12/31/2013; CPSC. Data was extracted in July 2014.

<sup>3</sup> Toy-related deaths among children 12 years of age or younger are presented to be consistent with the age definition for a children's product in the Consumer Product Safety Improvement Act of 2008 (CPSIA), 15 U.S.C. § 2052 (a)(2).

<sup>4</sup> One new toy-related death was reported to CPSC staff occurring in the 2011 calendar year, and five new toy-related deaths were reported to CPSC occurring in the 2012 calendar year, increasing the number of reported deaths to 18 in 2011 and 16 in 2012.

Table 2 details the fatalities associated with toys for children younger than 15 years of age in 2013 that were reported to CPSC staff. The toy types and associated hazards involved in these reported fatalities are presented in descending order of the frequency of reports. There is one toy (a rubber ball) in Table 2, which was associated with one death that is included in the last row of Table 1 with “other toys.” There are five other toys (*i.e.*, a balloon; a nonmotorized scooter; a powered riding toy; plastic toy food; and a marble) that were each associated with a single death in 2013; however, because these toys were associated with other deaths in 2011 and/or 2012, they are presented in other rows of Table 1 to highlight the hazard.

As shown in Table 2, six of the nine reported fatalities (67 percent) of children younger than 15 years of age in 2013 involved asphyxiation. These fatalities were associated with the following toys: toy figures; a balloon; plastic toy food; a marble; and a rubber ball. Two of the nine (22 percent) reported toy-related deaths in 2013 were associated with riding toys (*i.e.*, a powered riding toy and a nonmotorized scooter), which involved neck injury/asphyxiation and a motor vehicle.

**Table 2: Reported Toy-Related Deaths Among Children Younger Than 15 Years of Age  
2013**

| Type of Toys                                     | Children 12 Years of Age or Younger <sup>y</sup> | Children 13 and 14 Years of Age |
|--------------------------------------------------|--------------------------------------------------|---------------------------------|
| <b>TOTAL</b>                                     | <b>9</b>                                         |                                 |
| <b>Sub Total</b>                                 | <b>9</b>                                         | <b>0</b>                        |
| Doll accessory/toy figures (choking, drowning)   | 3                                                |                                 |
| Balloon (choking)                                | 1                                                |                                 |
| Nonmotorized scooter (motor vehicle involvement) | 1                                                |                                 |
| Powered riding toy (neck injury/asphyxiation)*   | 1                                                |                                 |
| Plastic toy food (choking)                       | 1                                                |                                 |
| Marble (choking/asphyxia)                        | 1                                                |                                 |
| Rubber ball (asphyxiation)                       | 1                                                |                                 |

Source: INDP, IPII, DTHS, and NEISS from 1/1/2013 to 12/31/2013; CPSC. Data were extracted in July 2014.

<sup>y</sup> Toy-related deaths among children 12 years of age or younger are presented to be consistent with the age definition for a children’s product in the Consumer Product Safety Improvement Act of 2008 (CPSIA), 15 U.S.C. § 2052 (a)(2).

\* This case was still open, and no information was available to determine the cause of death from the coroner’s office at the time the annual report was written.

In 2013, there were nine reported deaths related to toys. Of the nine fatalities, four victims were females, and five were males. The age range for the nine reported deaths is 8 months to 11 years. The scenario-specific details of some of these incidents are described below.

### **Doll Accessory and Toy Figures**

Three victims—two females and one male, ages 8 months to 3 years—died of choking on small parts of toy figures or drowning with a doll stroller.

An 8-month-old baby boy was found not breathing by his father. A small round plastic ball from a toy chicken was found in the victim's throat. The victim died in a hospital the next day.

A 3-year-old girl was found deceased lying on her bedroom floor by her parents. Sometime during the night, the victim had choked on what appeared to be the tongue-shaped part of a toy figure. According to the coroner's report, the victim died of asphyxia due to foreign body obstruction of her upper airway.

A 21-month-old baby girl was found floating unresponsive in an in-ground pool. The victim's toy stroller was lying underwater at the bottom of the pool, as well. According to the medical examiner, it appeared that the victim was pushing her play stroller when she fell into the pool. The victim died later in a hospital.

### **Balloon**

A 7-year-old girl reportedly collapsed at her elementary school after choking on a balloon, and she died later in a hospital.

### **Nonmotorized Scooter**

An 11-year-old girl was killed in a scooter accident. The victim did not look both ways before crossing the street, and she crashed into a truck and was run over by the left rear wheel of the vehicle. The victim was taken to a hospital where she later died.

### **Powered Riding Toy<sup>5</sup>**

A 5-year-old boy died in an accident while he was driving a powered wheeled riding toy. The victim reportedly struck a trampoline and became pinned between the frame of the trampoline and the riding toy. The victim was taken to a hospital where he was pronounced dead from either a neck injury or asphyxiation.

### **Plastic Toy Food**

A 2-year-old boy died from asphyxia when he choked on a piece of a plastic toy cucumber, which became lodged in his throat and blocked his airway.

### **Marble**

A 4-year-old boy choked on a 5/8-inch diameter glass marble. The victim was declared dead at the hospital emergency room.

### **Rubber Ball**

A 7-year-old boy was found with a small rubber ball lodged in his throat. The ball was removed by emergency medical personnel before the victim was transported to the hospital. The victim was life-flighted to another hospital where he died 2 days later. According to the attending coroner, the cause of death was asphyxiation.

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<sup>5</sup> This case was still open, and no information was available to determine the cause of death from the coroner's office at the time the annual report was written.

## Estimated Toy-Related Injuries<sup>6</sup>

In 2013, there were an estimated 256,700 toy-related injuries for all ages treated in U.S. hospital emergency departments. These injuries were related to, but not necessarily caused by, toys. There is not a statistically significant trend in the estimated annual toy-related emergency department-treated injuries from 2009 to 2013, for all ages.<sup>7,8</sup> Moreover, for children younger than 15 years of age, children 12 years of age or younger, and children younger than 5 years of age, there is not a statistically significant trend during the same time period. Table 3 displays the annual injury estimates across these four age groups from 2009 to 2013. For additional historical estimates, refer to the attached Appendix A.

**Table 3: Annual Toy-Related Emergency Department-Treated Injury Estimates  
2009–2013**

| <b>Calendar Year</b> | <b>All Ages</b> | <b>Younger Than 15 Years of Age</b> | <b>12 Years of Age or Younger<sup>*</sup></b> | <b>Younger Than 5 Years of Age</b> |
|----------------------|-----------------|-------------------------------------|-----------------------------------------------|------------------------------------|
| 2009                 | 250,100         | 185,900                             | 177,800                                       | 90,600                             |
| 2010                 | 251,700         | 181,500                             | 172,000                                       | 89,200                             |
| 2011                 | 262,300         | 193,200                             | 184,100                                       | 92,200                             |
| 2012                 | 265,000         | 192,000                             | 181,600                                       | 89,500                             |
| 2013                 | 256,700         | 188,400                             | 178,100                                       | 83,700                             |

Source: NEISS, U.S. Consumer Product Safety Commission. Estimates are rounded to the nearest 100.

<sup>\*</sup> Toy-related injury estimates among children 12 years of age or younger are presented to be consistent with the age definition for a children's product in the Consumer Product Safety Improvement Act of 2008 (CPSIA), 15 U.S.C. § 2052 (a)(2).

Of the 256,700 estimated emergency department-treated injuries associated with toys in 2013, 73 percent (188,400) were sustained by children younger than 15 years of age; 69 percent (178,100) were sustained by children 12 years or younger; and 33 percent (83,700) were sustained by children younger than 5 years of age. Males accounted for 58 percent (148,100) of the estimated treated injuries. Most of the victims (96 percent) were treated and released from the hospital. Three percent of the victims were admitted to the hospital or transferred to another hospital. The remaining 1 percent were held for observation or left without being seen by a doctor.

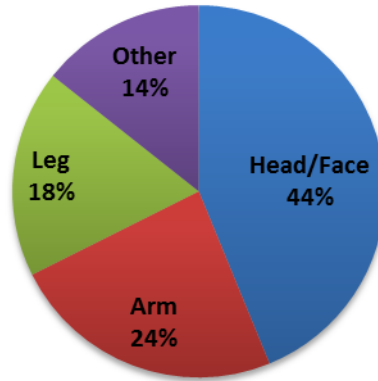
Figure 1 presents the distribution of the annual estimated toy-related emergency department-treated injuries by the specific parts of the body injured. Forty-four percent of the estimated 256,700 injuries in 2013 (112,400), occurred to the head and face area (head, face, eye, mouth, and ear). The arm, from the shoulder to finger, accounted for 24 percent of the injuries (61,200). The leg (upper leg, lower leg, knee, ankle, foot, and toes) accounted for 18 percent (46,300). The remaining 14 percent of injuries were to other parts of the body not reported above. The individual body parts with the most estimated injuries overall were the face (47,900) and the head (33,500).

<sup>6</sup> The source of these data is the U.S. Consumer Product Commission's National Electronic Injury Surveillance System (NEISS), which is based on a statistical sample of hospital emergency department-treated injuries. For a description of which cases are included in NEISS, how they're coded, and an alphabetical listing of products with current product codes, please see the NEISS Coding Manual at: <http://www.cpsc.gov/neiss/completemanual.pdf>.

<sup>7</sup> T. Schroeder, "Trend Analysis of NEISS Data," CPSC, 2000.

<sup>8</sup> Throughout this report, a change (increase/trend) in estimated injuries over the given years is determined to be statistically significant where the p-value for the statistic that tests for trend is less than 0.05.

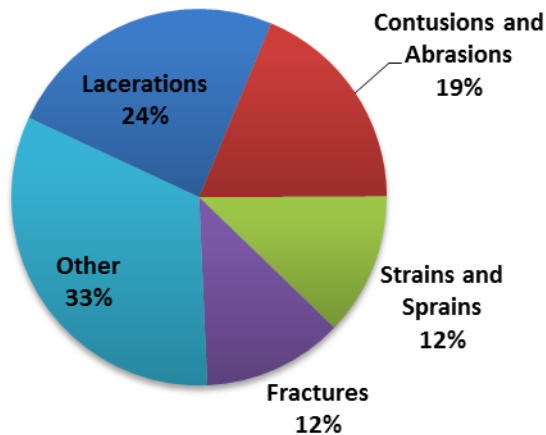
**Figure 1: Distribution of Toy-Related Injury Estimates by Body Regions Injured for All Ages**  
**2013**  
 (Total=256,700)



Source: NEISS, U.S. Consumer Product Safety Commission.

Figure 2 shows the distribution of the annual estimated toy-related emergency department-treated injuries by type of injury. In 2013, 24 percent of the estimated emergency department-treated injuries were diagnosed as lacerations, while an estimated 19 percent were diagnosed as contusions/abrasions. Strains/sprains represented an estimated 12 percent of injuries, and fractures represented 12 percent. The remaining 33 percent of estimated injuries were spread across several other diagnoses, such as: internal injury, ingestion, dislocation, concussion, and puncture injuries, among others.

**Figure 2: Distribution of Toy-Related Injury Estimates by Type of Injuries for All Ages**  
**2013**  
 (Total=256,700)



Source: NEISS, U.S. Consumer Product Safety Commission.

In 2013, riding toys continued to be associated with more emergency department-treated injuries for all ages than any other category of toy.<sup>9</sup> Riding toys were associated with 82,100 (32 percent) of the estimated injuries. Nonmotorized scooters accounted for 74 percent of the estimated injuries related to riding toys for all ages. As shown in Table 4, the top three specifically identified toys that were associated with the most estimated injuries for all ages in 2013 were: nonmotorized scooters (61,000, or 24 percent); toy balls (20,700, or 8 percent); and toy vehicles (12,600, or 5 percent).

**Table 4: Toy Categories Associated with the Largest Number of Estimated Emergency Department-Treated Injuries for Different Age Groups  
2013**

| Toy Category          | Estimated Injuries (%) |                              |                                         |                             |
|-----------------------|------------------------|------------------------------|-----------------------------------------|-----------------------------|
|                       | All Ages               | Younger Than 15 Years of Age | 12 Years of Age or Younger <sup>§</sup> | Younger Than 5 Years of Age |
| Nonmotorized Scooters | 61,000 (24)            | 52,500 (28)                  | 48,100 (27)                             | 7,700 (9)                   |
| Toys, Not Specified   | 56,200 (22)            | 35,400 (19)                  | 34,800 (20)                             | 24,000 (29)                 |
| Toy Balls             | 20,700 (8)             | 16,100 (9)                   | 14,300 (8)                              | 4,700 (6)                   |
| Toy Vehicles          | 12,600 (5)             | 8,300 (4)                    | 8,300 (5)                               | 5,400 (7)                   |

Source: NEISS, U.S. Consumer Product Safety Commission. Estimates are rounded to the nearest 100.

<sup>§</sup> Toy-related injury estimates among children 12 years of age or younger are presented to be consistent with the age definition for a children's product in the Consumer Product Safety Improvement Act of 2008 (CPSIA), 15 U.S.C. § 2052 (a)(2).

Patterns for children younger than 15 years of age and for children 12 years of age or younger in 2013 were similar to those for all individuals.

For children younger than 15 years of age, riding toys, with 71,700 (38 percent) injuries, were also associated with more estimated injuries than any other category of toy. Nonmotorized scooters accounted for 73 percent of the estimated injuries related to riding toys. Table 4 shows that the top three specifically identified toys associated with the most estimated injuries for children younger than 15 years of age were the same as for all ages: nonmotorized scooters (52,500, or 28 percent); toy balls (16,100, or 9 percent); and toy vehicles (8,300, or 4 percent).

For children 12 years of age or younger, riding toys, with 67,200 (38 percent) estimated injuries, were associated with a larger number of estimated injuries than any other category of toy. Nonmotorized scooters accounted for 72 percent of the estimated injuries related to riding toys. Table 4 displays that the top three specifically identified toys associated with the most estimated injuries for children 12 years of age or younger were the same as for all ages: nonmotorized scooters (48,100, or 27 percent); toy balls (14,300, or 8 percent); and toy vehicles (8,300, or 5 percent).

For children younger than 5 years of age, riding toys, with 21,700 (26 percent) estimated injuries, were too associated with more injuries than any other specified category of toy in 2013. However, nonmotorized scooters accounted for only 36 percent of the riding toy-related injuries. As displayed in Table 4, the top three specifically identified toys associated with the most estimated injuries for children

<sup>9</sup> Riding toys include these toy products: nonmotorized scooters; tricycles; unpowered nonwheeled riding toys; children's wagons; powered riding toys; unpowered wheeled riding toys; and unspecified riding toys (excluding bicycles and tricycles).

younger than 5 years of age in 2013 were: nonmotorized scooters (7,700, or 9 percent); toy vehicles (5,400, or 7 percent); and toy balls (4,700, or 6 percent). These data vary slightly from what was observed for all ages, children younger than 15 years of age, and children 12 years of age or younger.

Table 5 displays the annual estimated emergency department-treated injuries associated with nonmotorized scooters from 2009 to 2013, for children younger than 15 years of age, children 12 years of age or younger, and for children younger than 5 years of age. This table also presents the injury estimates associated with all toys and the percentages of injury estimates related to nonmotorized scooters. In 2013, nonmotorized scooters were associated with the most estimated injuries among specifically identified toys for these three age groups of children. There is not a statistically significant trend in the estimated injuries related to nonmotorized scooters between 2009 and 2013, for any of the three age groups of children.

**Table 5: Nonmotorized Scooter-Related Annual Emergency Department-Treated Injury Estimates for Children of Different Age Groups  
2009–2013**

| Calendar Year | Estimated Injuries                |                                                    |                                   |                                                    |                                   |                                                    |
|---------------|-----------------------------------|----------------------------------------------------|-----------------------------------|----------------------------------------------------|-----------------------------------|----------------------------------------------------|
|               | Younger Than 15 Years of Age      |                                                    | 12 Years of Age or Younger        |                                                    | Younger Than 5 Years of Age       |                                                    |
|               | Injuries Associated with All Toys | Injuries (%) Associated with Nonmotorized Scooters | Injuries Associated with All Toys | Injuries (%) Associated with Nonmotorized Scooters | Injuries Associated with All Toys | Injuries (%) Associated with Nonmotorized Scooters |
| 2009          | 185,900                           | 49,500 (27)                                        | 177,800                           | 45,900 (26)                                        | 90,600                            | 8,100 (9)                                          |
| 2010          | 181,500                           | 42,800 (24)                                        | 172,000                           | 39,400 (23)                                        | 89,200                            | 5,800 (7)                                          |
| 2011          | 193,200                           | 49,300 (26)                                        | 184,100                           | 45,600 (25)                                        | 92,200                            | 7,600 (8)                                          |
| 2012          | 192,000                           | 52,400 (27)                                        | 181,600                           | 47,500 (26)                                        | 89,500                            | 8,300 (9)                                          |
| 2013          | 188,400                           | 52,500 (28)                                        | 178,100                           | 48,100 (27)                                        | 83,700                            | 7,700 (9)                                          |

Source: NEISS, U.S. Consumer Product Safety Commission. Estimates are rounded to the nearest 100.

Toys that are identified but that cannot be placed under already-established toy product codes are likely to be coded under the product code, “Toys, Not Elsewhere Classified.” Table 6 displays the estimated emergency department-treated injuries associated with this product code for all ages, children younger than 15 years of age, children 12 years of age or younger, and children younger than 5 years of age from 2010 to 2013. It shows that the proportions of the estimated injuries related to this product code were very similar across different age groups between 2010 and 2013. In addition, there is not a statistically significant trend in the estimated injuries associated with this product code from 2010 to 2013, in any of the four age groups presented in Table 6. Please note that the injury estimates related to the product code, “Toys, Not Elsewhere Classified,” between 2010 and 2013, were not comparable to the estimates associated with this category of toys in 2009 or earlier.<sup>10</sup>

<sup>10</sup> Y. Tu, “Toy-Related Deaths and Injuries, Calendar Year 2010,” CPSC, October 2011.

**Table 6: Annual Emergency Department-Treated Injury Estimates Associated with Product Code, “Toys, Not Elsewhere Classified,” for Different Age Groups  
2010–2013**

| Calendar Year | Estimated Injuries (%)<br>Associated with “Toys, Not Elsewhere Classified” |                              |                            |                             |
|---------------|----------------------------------------------------------------------------|------------------------------|----------------------------|-----------------------------|
|               | All Ages                                                                   | Younger Than 15 Years of Age | 12 Years of Age or Younger | Younger Than 5 Years of Age |
| 2010          | 8,500 (3)                                                                  | 7,000 (4)                    | 6,800 (4)                  | 3,400 (4)                   |
| 2011          | 9,700 (4)                                                                  | 7,800 (4)                    | 7,600 (4)                  | 3,900 (4)                   |
| 2012          | 6,500 (2)                                                                  | 5,200 (3)                    | 4,900 (3)                  | 2,700 (3)                   |
| 2013          | 9,100 (4)                                                                  | 7,500 (4)                    | 7,200 (4)                  | 3,600 (4)                   |

Source: NEISS, U.S. Consumer Product Safety Commission. Estimates are rounded to the nearest 100.

The product code, “Toys, Not Specified,” was reinstated in 2010, to classify injuries that were associated with toys, but where the toys involved were not identified specifically in the NEISS injury narratives. Table 7 presents the annual estimated emergency department-treated injuries associated with this product code for all individuals, children younger than 15 years, children 12 years of age or younger, and children younger than 5 years from 2010 to 2013. Table 7 shows that the proportions of the estimated injuries related to this product code were very close between 2010 and 2013, for all four age groups. There is not a statistically significant trend in the estimated number of injuries associated with the product code, “Toys, Not Specified,” from 2010 to 2013, for any of the four age groups specified in Table 7.

**Table 7: Annual Emergency Department-Treated Injury Estimates Associated with Product Code, “Toys, Not Specified,” for Different Age Groups  
2010–2013**

| Calendar Year | Estimated Injuries (%)<br>Associated with “Toys, Not Specified” |                              |                            |                             |
|---------------|-----------------------------------------------------------------|------------------------------|----------------------------|-----------------------------|
|               | All Ages                                                        | Younger Than 15 Years of Age | 12 Years of Age or Younger | Younger Than 5 Years of Age |
| 2010          | 58,200 (23)                                                     | 36,200 (20)                  | 35,500 (21)                | 24,800 (28)                 |
| 2011          | 60,000 (23)                                                     | 38,900 (20)                  | 38,700 (21)                | 27,700 (30)                 |
| 2012          | 57,400 (22)                                                     | 33,900 (18)                  | 33,500 (18)                | 24,800 (28)                 |
| 2013          | 56,200 (22)                                                     | 35,400 (19)                  | 34,800 (20)                | 24,000 (29)                 |

Source: NEISS, U.S. Consumer Product Safety Commission. Estimates are rounded to the nearest 100.

In 2010, CPSC staff conducted a special study of all injuries that were treated at the emergency departments of NEISS hospitals between July 1, 2010 and December 31, 2010, where the product involved was coded: “Toys, Not Specified.” The aim of this study was to identify the actual toys involved and to facilitate the characterization of toys with unknown classifications and the associated hazard patterns. All NEISS cases that were treated during that specific 6-month period and were associated with the product code, “Toys, Not Specified,” were assigned for telephone In-Depth

Investigations. During the telephone investigations, telephone interviewers asked the injury victim (or the victim's caregiver, if the victim was a minor) about the incident scenario, how the injury occurred, what type of toy was involved, the age of the toy, how the toy was obtained, and other questions regarding the characteristics of the toy. CPSC staff wrote a report to summarize the study design, telephone survey results, the estimating methods, and analysis results for this special study.<sup>11</sup>

The special study revealed that 19 percent of the estimated injuries that were associated with the product code, "Toys, Not Specified," during the special study period, did not involve a toy. Therefore, a 0.81 correction factor was introduced to adjust the injury estimates related to this product code.<sup>11</sup> By using this correction factor, it is assumed that the percent of the estimated injuries that are associated with the product code, "Toys, Not Specified," and that do not involve a toy, does not change from year to year. The validity of this assumption has not been verified. Applying this correction factor to the toy-related injury estimates in 2013, and further extrapolating the distribution of toys identified from the special study to the injury estimate associated with the product code, "Toys, Not Specified," in 2013, the adjusted toy-related injury estimates and the toy categories that were associated with the largest number of adjusted estimated injuries in 2013 are presented in Table 8 for all ages, children younger than 15 years, children 12 years of age or younger, and children younger than 5 years.

**Table 8: Toy-Related Injury Estimates Adjusted for the Correction Factor for Different Age Groups and Toy Categories Associated with the Most Adjusted Estimated Injuries 2013**

| Toys                                  | Adjusted Estimated Injuries (%) |                              |                            |                             |
|---------------------------------------|---------------------------------|------------------------------|----------------------------|-----------------------------|
|                                       | All Ages                        | Younger Than 15 Years of Age | 12 Years of Age or Younger | Younger Than 5 Years of Age |
| All Toys                              | 246,300 (100)                   | 181,800 (100)                | 171,600 (100)              | 79,300 (100)                |
| Nonmotorized Scooters                 | 61,600 (25)                     | 52,900 (29)                  | 48,500 (28)                | 8,000 (10)                  |
| Toy Vehicles                          | 22,700 (9)                      | 14,700 (8)                   | 14,600 (9)                 | 9,800 (12)                  |
| Toy Balls                             | 21,300 (9)                      | 16,500 (9)                   | 14,700 (9)                 | 5,000 (6)                   |
| Dolls, Plush Toys, and Action Figures | 13,500 (5)                      | 10,000 (6)                   | 9,900 (6)                  | 6,400 (8)                   |

Source: NEISS, U.S. Consumer Product Safety Commission. Estimates are adjusted for correction factor and rounded to the nearest 100.

Table 8 displays that the nonmotorized scooters, toy balls, toy vehicles, and "dolls, plush toys, and action figures" were associated with the most adjusted estimated injuries in 2013 for all individuals, children younger than 15 years of age, or children 12 years of age or younger. These four categories of toys accounted for nearly half of the adjusted estimated toy-related injuries for these three age groups. For children younger than 5 years of age, toy vehicles, nonmotorized scooters, "dolls, plush toys, and action figures," and toy balls were associated with the most adjusted estimated injuries, and they represented 37 percent<sup>12</sup> of the adjusted toy-related injuries in 2013.

Notably, after applying the correction factor and extrapolating the 2010 special study results to the toy-related injury estimates in 2013, only 5 to 6 percent of the 2013 adjusted toy-related injuries were associated with the product code, "Toys, Not Elsewhere Classified," for the four age groups specified in

<sup>11</sup> Y. Tu and S. Garland, "A NEISS Special Study, "Toys, Not Specified": Analysis and Results," CPSC, February 2012.

<sup>12</sup> It may not equal to sum of the percentages presented in Table 8 due to rounding.

Table 8. As for the product code, “Toys, Not Specified,” just 2 to 3 percent of the adjusted estimated toy-related injuries in 2013 were related to this product code for the four age groups listed in Table 8. Therefore, more than 90 percent of the adjusted toy-related injuries in 2013 could be attributed to established specified toy product codes.

## Appendix A

### Estimated Number of Toy-Related Injuries from 1999 through 2013

Table 9 and Figure 3 display the annual emergency department-treated injury estimates associated with toys from 1999 through 2013. Statistically significant trends are observed in the data for all ages, children younger than 15 years of age, children 12 years or younger, and children younger than 5 years of age from 1999 to 2013.

Table 9 and Figure 3 show large increases in the annual estimated number of injuries for all ages, children younger than 15 years of age, and children 12 years or younger from 1999 to 2001. These increases are attributed primarily to rises in injuries associated with nonmotorized scooters.<sup>13,14,15</sup> During the most recent 5 years, 2009 to 2013, there is not a statistically significant trend in the estimated number of injuries related to nonmotorized scooters for all ages, children younger than 15 years of age, children 12 years of age or younger, or children younger than 5 years of age (see Table 5).

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<sup>13</sup> J. McDonald, "Toy-Related Deaths and Injuries, Calendar Year 2000," CPSC, November 2001.

<sup>14</sup> J. McDonald, "Toy-Related Deaths and Injuries, Calendar Year 2001," CPSC, October 2002.

<sup>15</sup> Y. Tu, "Toy-Related Deaths and Injuries, Calendar Year 2011," CPSC, November 2012.

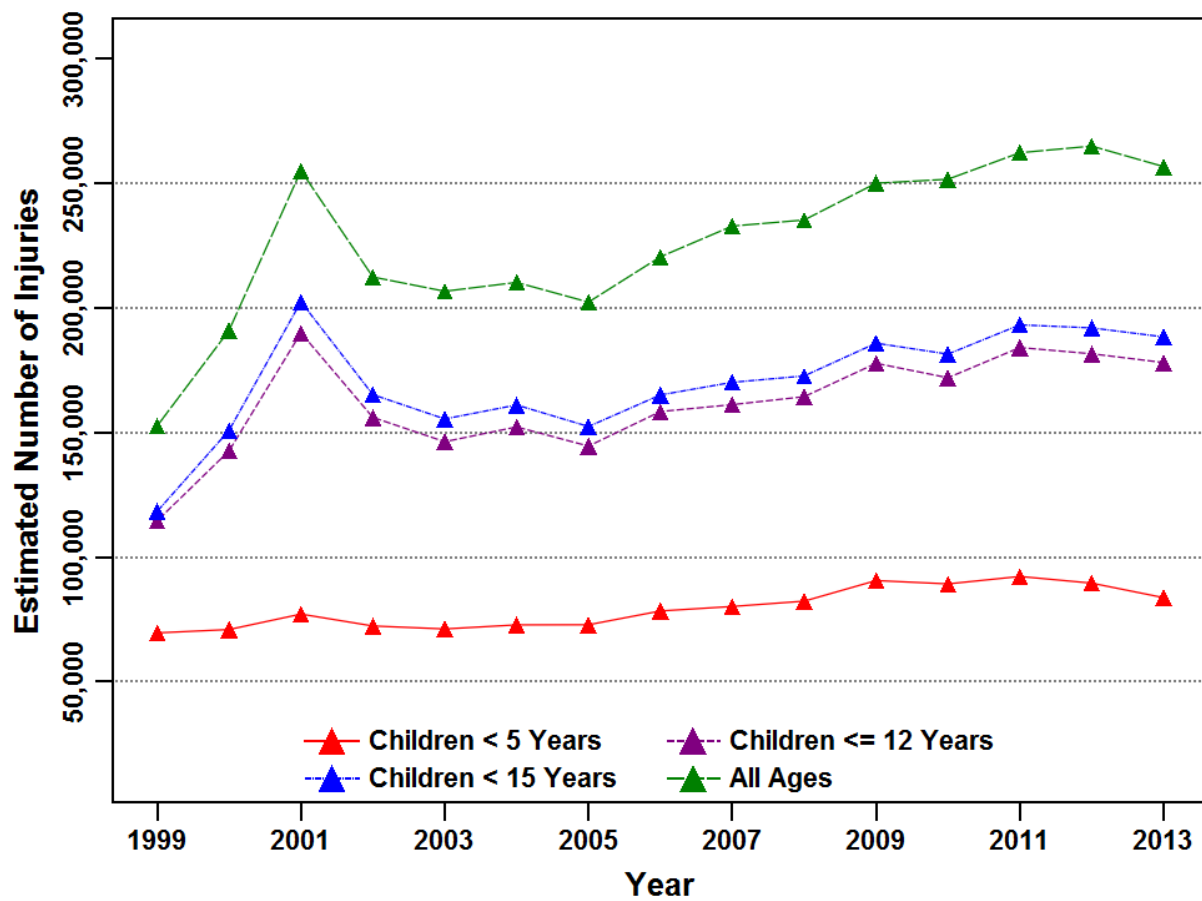
**Table 9: Toy-Related Emergency Department-Treated Injury Estimates for Different Age Groups  
1999–2013**

| Calendar Year* | All Ages        |                         | Children Younger Than 15 Years of Age |                         | Children 12 Years of Age or Younger |                         | Children Younger Than 5 Years of Age |                         |
|----------------|-----------------|-------------------------|---------------------------------------|-------------------------|-------------------------------------|-------------------------|--------------------------------------|-------------------------|
|                | Injury Estimate | 95% Confidence Interval | Injury Estimate                       | 95% Confidence Interval | Injury Estimate                     | 95% Confidence Interval | Injury Estimate                      | 95% Confidence Interval |
| 1999           | 152,600         | 134,400–170,800         | 118,300                               | 103,000–133,700         | 114,600                             | 99,600–129,500          | 69,600                               | 60,000–79,200           |
| 2000           | 191,000         | 161,500–220,500         | 150,800                               | 125,100–176,600         | 142,600                             | 118,500–166,700         | 70,900                               | 60,200–81,600           |
| 2001           | 255,100         | 221,100–289,100         | 202,500                               | 171,700–233,300         | 190,000                             | 160,600–219,400         | 77,100                               | 65,600–88,600           |
| 2002           | 212,400         | 182,800–242,100         | 165,200                               | 139,600–190,800         | 156,100                             | 131,900–180,200         | 72,400                               | 59,900–84,800           |
| 2003           | 206,700         | 177,500–235,900         | 155,400                               | 132,000–178,900         | 146,300                             | 124,300–168,400         | 71,200                               | 59,500–82,800           |
| 2004           | 210,300         | 179,800–240,700         | 161,100                               | 135,900–186,200         | 152,200                             | 128,500–176,000         | 72,800                               | 61,300–84,300           |
| 2005           | 202,300         | 175,100–229,500         | 152,400                               | 129,700–175,100         | 144,500                             | 122,500–166,600         | 72,800                               | 61,800–83,800           |
| 2006           | 220,500         | 190,300–250,800         | 165,100                               | 139,900–190,200         | 158,400                             | 134,300–182,600         | 78,400                               | 66,500–90,300           |
| 2007           | 232,900         | 200,000–265,700         | 170,100                               | 144,600–195,700         | 161,200                             | 136,900–185,500         | 80,200                               | 67,700–92,600           |
| 2008           | 235,300         | 202,400–268,200         | 172,700                               | 146,800–198,600         | 164,400                             | 139,400–189,300         | 82,300                               | 69,200–95,400           |
| 2009           | 250,100         | 214,100–286,000         | 185,900                               | 156,600–215,100         | 177,800                             | 149,800–205,800         | 90,600                               | 76,100–105,100          |
| 2010           | 251,700         | 216,100–287,200         | 181,500                               | 152,400–210,500         | 172,000                             | 144,400–199,500         | 89,200                               | 74,000–104,500          |
| 2011           | 262,300         | 225,400–299,200         | 193,200                               | 162,500–223,900         | 184,100                             | 154,400–213,800         | 92,200                               | 74,900–109,600          |
| 2012           | 265,000         | 228,600–301,300         | 192,000                               | 161,400–222,600         | 181,600                             | 152,300–210,900         | 89,500                               | 73,300–105,800          |
| 2013           | 256,700         | 220,600–292,900         | 188,400                               | 158,100–218,700         | 178,100                             | 149,000–207,100         | 83,700                               | 68,200–99,300           |

Source: NEISS, U.S. Consumer Product Safety Commission. Estimates are rounded to the nearest 100.

\*Tabulated estimates with confidence intervals for 1999–2013 were produced in July 2014.

**Figure 3: Toy-Related Emergency Department-Treated Injury Estimates for Different Age Groups  
1999–2013**



## Appendix B

### NEISS Product Codes for Toys as of January 1, 2013

| Product Code | Toy Type                                                                                   |
|--------------|--------------------------------------------------------------------------------------------|
| 1301         | Tricycles (Children's)                                                                     |
| 1309         | Kites or Kite String                                                                       |
| 1310         | Pogo Sticks                                                                                |
| 1314         | Rocketry Sets                                                                              |
| 1319         | Metal or Plastic Molding Sets                                                              |
| 1322         | Children's Play Tents, Play Tunnels, or Other Enclosures                                   |
| 1325         | Inflatable Toys (Excluding Balls and Balloons)                                             |
| 1326         | Blocks, Stacking Toys, or Pull Toys                                                        |
| 1327         | Nonwheeled Riding Toys, Unpowered                                                          |
| 1328         | Wagons (Children's)                                                                        |
| 1329         | Scooters, Unpowered                                                                        |
| 1330         | Powered Riding Toys                                                                        |
| 1338         | Toy Bows or Arrows                                                                         |
| 1342         | Costumes or Masks                                                                          |
| 1344         | Toy Musical Instruments                                                                    |
| 1345         | Building Sets                                                                              |
| 1346         | Clacker Balls                                                                              |
| 1347         | Balloons (Toy)                                                                             |
| 1349         | Stilts                                                                                     |
| 1350         | Squeeze or Squeaker Toys                                                                   |
| 1352         | Slingshots or Sling-Propelled Toys                                                         |
| 1353         | Toy Boxes or Chests                                                                        |
| 1354         | Marbles                                                                                    |
| 1362         | Woodburning Kits                                                                           |
| 1365         | Water Toys (Excluding Squeeze/Squeaker Toys and Inner Tubes or Similar Floating Equipment) |
| 1376         | Molding Compounds                                                                          |
| 1381         | Toys, Not Elsewhere Classified                                                             |
| 1389         | Other Toy Weapons (Nonprojectile)                                                          |
| 1390         | Toy Guns, Not Specified                                                                    |

| <b>Product Code</b> | <b>Toy Type</b>                                                                     |
|---------------------|-------------------------------------------------------------------------------------|
| 1392                | Toy Sports Equipment                                                                |
| 1393                | Chemistry Sets or Science Kits                                                      |
| 1394                | Dolls, Plush Toys, and Action Figures                                               |
| 1395                | Toys, Not Specified                                                                 |
| 1398                | Wheeled Riding Toys, Unpowered (Excluding Bicycles and Tricycles)                   |
| 1399                | Toy Guns With Projectiles                                                           |
| 1550                | Infant and Toddler Play Centers (Excluding Jumpers, Bouncers, and Exercisers)       |
| 5001                | Other Toy Weapons (Projectile)                                                      |
| 5005                | Riding Toys (Excluding Bicycles and Tricycles), Not Specified                       |
| 5006                | Other Toy Guns                                                                      |
| 5007                | Toy Weapons, Not Specified                                                          |
| 5010                | Crayons Or Chalk (Excluding Billiard or Pool Chalk)                                 |
| 5011                | Book Bags or Back Carriers (Excluding Baby Carriers, Luggage and Camping Equipment) |
| 5013                | Toy Make-Up Kits or Cosmetics (Excluding Mirrors)                                   |
| 5015                | Toy Caps, Cap Toys, or Cap Guns                                                     |
| 5016                | Balls, Other or Not Specified                                                       |
| 5017                | Flying Discs and Boomerangs                                                         |
| 5018                | Doll Houses and Other Play Scenes                                                   |
| 5019                | Games or Game Parts (Excluding Marbles and Computer Games)                          |
| 5020                | Pretend Electronics, Tools, Housewares, and Appliances                              |
| 5021                | Toy Vehicles (Excluding Riding Toys)                                                |