Product Instability or Tip-Over Injuries and Fatalities Associated with Televisions, Furniture, and Appliances: 2021 Report

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Executive Summary

This report contains information on injuries and fatalities associated with television, furniture, and appliance product instability, or tip-over incidents. Tip-over incidents include scenarios where heavy furniture falls on an individual from some type of interaction, such as climbing or exerting a force on the product while it is in one of its positions of normal use. Product instability that can lead to a tip-over incident can be caused or affected by an unstable design (small footprint, top heavy), use on a sloped or unstable surface (carpet), non-use of a tip-over restraint device or use of a defective tip-over restraint device, heavy objects on top of furniture, or multiple drawers open. A television or an appliance that falls in combination with the furniture (that the television or appliance is resting in or on) is counted only in the furniture category in tabulations by product types presented in this report.

This report presents a national estimate of emergency department-treated instability or tip-over injuries, followed by the counts of reported fatalities. The injury estimates are for years 2018 through 2020,[1] and fatal incidents are reported to have occurred from 2000 through 2020.[2] Appendix A presents the methodology for data extraction and selection criteria. Appendix B describes conventions applied for determining the products and scenarios that are included in the various product categories in this report. The statistics presented in this report are not comparable to statistics released previously, due to refinement of the conventions for determining in-scope National Electronic Injury Surveillance System (NEISS) injuries and reported deaths in the Consumer Product Safety Risk Management System (CPSRMS) (see Appendix B).

Of the estimated annual average of 22,500 emergency department (ED)-treated injuries[3] (2018–2020) and the 581 reported fatalities[4] associated with tip-over incidents occurring between 2000 and 2020, staff noted the following[5]:

- Victims
  - Estimated annual average number of ED-treated injuries:
    - children under age 18 years suffered 10,000 (44%) injuries, while they represent 22 percent of the population;
    - adults ages 18 to 59 years suffered 8,400 (37%) injuries, while they represent 55 percent of the population; and
    - seniors ages 60 years and older suffered 4,200 (19%) injuries, while they represent 23 percent of the population.

[1] Injury estimates are rounded to the nearest hundred.
[2] Fatality counts should be considered incomplete for years 2019–2020, due to a time lag in reporting to CPSC.
[3] Between 2011 and 2020, there were 12 NEISS tip-over injuries that ultimately resulted in deaths. Of these 12 deaths, two occurred between 2018 and 2020. All these deaths are included in both the national annual estimates throughout the NEISS "injury" section and the fatality section of this report.
[4] Between 2000 and 2020, there were 21 NEISS fatalities, and all of them appear in the fatality section of this report.
[5] Percentages may not sum to 100, due to rounding.

- Reported fatalities:
  - 472 (81%) involved children under age 18 years;
  - 20 (3%) involved adults ages 18 to 59 years; and
  - 89 (15%) involved seniors ages 60 years and older.

- Tip-over product(s)
  - Estimated annual average number of ED-treated injuries:
    - 17,900 (79%) involved furniture (furniture-only, TV and furniture, or appliance and furniture);
    - 3,700 (16%) involved only a television; and
    - 900 (4%) involved only an appliance.

  - The estimated annual average number of ED-treated injuries involving children (under age 18 years) and furniture[6] was 7,900. Among them:
    - 3,200 (40%) involved a table;
    - 2,400 (30%) involved a chest, bureau, or dresser;
    - 1,200 (15%) involved shelving, a shelving unit, or a bookcase; and
    - 800 (15%) involved all other furniture (including cabinets and stands).

  - Reported fatalities:
    - 184 (32%) involved only a television;
    - 174 (30%) involved furniture and a television both tipping over;
    - 181 (31%) involved only furniture; and
    - 42 (7%) involved only an appliance.[7]
      - The largest appliance category was stove/oven (28 fatalities).

- Incident location[8]
  - Estimated annual average number of ED-treated injuries:
    - 66% in residential settings, 8% in public settings, and 25% in locations not specified.

  - Reported fatalities:
    - 91% in residential settings, 4% in public settings, and 4% in locations not specified.
    - 45% in bedrooms, 19% in living/family rooms, 12% in other locations (kitchen, dining room, and miscellaneous other rooms), and 24% in unknown room locations.

[6] Seen in Table 1b, of the estimated 7,900 furniture-related injuries to children, about 4 percent of these incidents also involved a television.
[7] There were no fatalities involving an appliance and furniture both falling.
[8] Public locations include nursing homes and assisted living facilities in both the NEISS injury estimates and in the fatality section, which generally only affects the senior age group.

- Injury characterization (primary injury type and body area affected)
    - Estimated annual average number of ED-treated injuries:
        - 30% contusions/abrasions, 16% internal organ injuries, 15% fractures, 13% lacerations, and 26% all other diagnoses.
        - 35% were to legs, feet, and toes; 33% were head injuries; 17% were to arms, hands, and fingers; 13% were torso injuries; and 2% were to all other body parts.

    - Reported fatalities:
        - 55% were crushed and remained under the product(s); 16% were hit/struck by product(s), but not crushed under the product(s); 22% were due to positional asphyxia; and 7% were due to other or unknown scenarios.
        - 66% were head injuries (58% head only; 7% head and torso); 24% were to the torso only; and 9% were to limb(s) or unknown body parts.

It should be noted that the CPSC launched its "Anchor It!" Campaign in early 2015,[9] a national public education campaign to prevent furniture and television tip overs from killing and seriously injuring children. Tip overs are a significant hidden hazard in the home, and CPSC's safety campaign is aimed at reducing the number of deaths and injuries from tipping televisions, furniture, and appliances.

[9] http://www.cpsc.gov/en/Safety-Education/Safety-Education-Centers/Tipover-Information-Center/.

Emergency Department-Treated Injuries

Table 1a shows that from 2018 through 2020, U.S. hospital emergency departments treated an estimated average of 22,500 people annually for product instability or tip-over injuries related to televisions, furniture, and appliances.[10] The All Furniture category, which includes only furniture, furniture and a television, and furniture and an appliance falling, had the largest number of instability or tip-over-related injuries among the three product categories, with a national annual average estimate of 17,900 injuries (79 percent). This was followed by the national annual average instability or tip-over injury estimate of 3,700 injuries (16 percent) associated with only a television falling. Appliance-only tip overs accounted for a national annual average of 900 injuries (4 percent). See Table 1a for a detailed breakdown; appliance estimates for 2013, 2016, 2017, 2019, and 2020 are not presented because there were not enough data to support reliable statistical estimates.

In this report, a television or an appliance falling in combination with furniture is counted only in the furniture category. In Table 1a through Table 1d, the furniture category is subdivided into incidents in which a television and furniture fell, and incidents in which either only furniture fell, or an appliance and furniture fell. The succinct nature of NEISS narratives, and the medical records from which the information is drawn, may fail to indicate a piece of furniture that may have been involved along with a fallen television. Cases that definitively indicate both a television and furniture fell were too few to produce robust estimates in the most recent years: 2017, 2018, 2019, and 2020. The previous annual report data were reevaluated, along with the review of newer data, to ensure that the criteria for inclusion were applied consistently, and any changes to data from past reports have been listed in Appendix A.

Regular usage patterns of products or emergency departments may have changed due to the COVID-19 pandemic; thus, 2020 NEISS injury estimates may be different than expected when examining longer-term trends. Some of the effects of the COVID-19 pandemic are discussed in a separate CPSC report.[11]

[10] Based on the National Electronic Injury Surveillance System (NEISS), which is a probability survey of about 100 hospitals nationally.

[11] Schroeder, Tom, "Effect of Novel Coronavirus Pandemic on 2020 NEISS Estimates (March–December, 2020)" May 2021, U.S. Consumer Product Safety Commission. This report is available at: Effect of Novel Coronavirus Pandemic on 2020 NEISS Estimates (March–December, 2020) | CPSC.gov

Table 1a shows the national annual average estimate of ED-treated tip-over injuries for all ages for 2018 through 2020, as well as yearly estimates for years 2011 through 2020, for comparison purposes. The national annual average estimate of injuries in Table 1a is broken out by product categories: television-only, furniture (television and furniture; furniture-only; and appliance and furniture), appliance-only, and a total for all product categories. In Tables 1a–1d, under the column for "All Furniture" injury estimates, there are two additional, mutually exclusive estimates in parentheses that subdivide the furniture category; these estimates are for scenarios where a television and furniture both fell, and where only furniture fell or an appliance and furniture both fell.

Table 1a
Annual Average of Estimated ED-Treated Injuries Due to Product Instability or Tip Overs for All Ages by Year 2011–2020

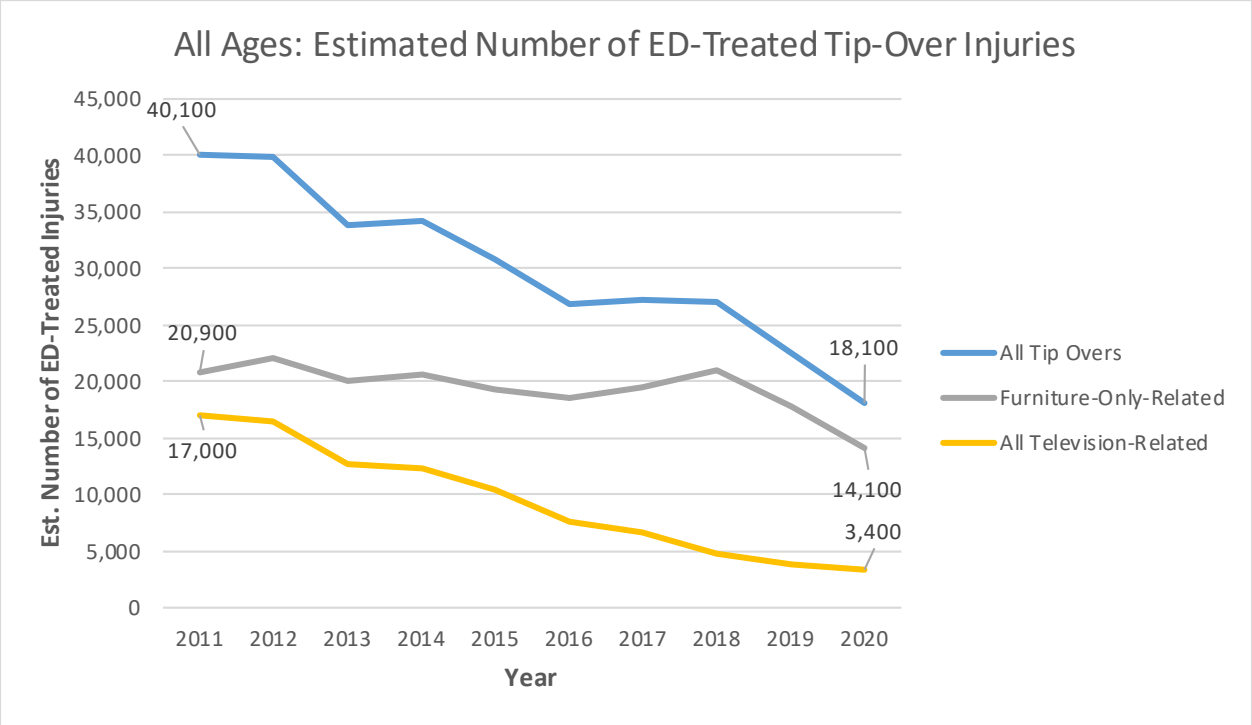
Estimated ED-Treated Injuries[12]				
Year	**Television-Only[13]**	**All Furniture ([TV + Furn]; [Furn + Appl & Furn-Only])[14]**	**Appliance-Only**	**Television, Furniture, and Appliance Total**
Annual Average (2018 – 2020)	3,700	17,900 (–; 17,600)	900	**22,500**
Average 95% Confidence Interval (CI)	(3,000 – 4,400)	(14,500 – 21,300) ((–); (14,200 – 21,000))	(600 – 1,200)	**(18,500 – 26,500)**
2020	3,200	14,300 (–; 14,100)	–	**18,100**
2019	3,700	17,900 (–; 17,700)	–	**22,400**
2018	4,300	21,500 (–; 20,900)	1,300	**27,100**
2017	5,900	20,100 (–; 19,400)	–	**27,100**
2016	6,300	19,900 (1,200; 18,600)	–	**26,900**
2015	9,000	20,500 (1,300; 19,200)	1,200	**30,700**
2014	10,600	22,500 (1,800; 20,700)	1,200	**34,300**
2013	10,500	22,300 (2,300; 20,000)	–	**33,800**
2012	13,700	25,000 (2,900; 22,100)	1,200	**39,900**
2011	13,900	24,100 (3,100; 20,900)	2,100	**40,100**

Source: U.S. Consumer Product Safety Commission: NEISS. The estimates include cases for television, furniture, and appliance product codes, as described in Appendix B. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Estimates are rounded to the nearest hundred and may not add up to the total, due to rounding.

[12] The coefficients of variation (CVs) for the given estimates ranged from 0.0558 to 0.3199.
[13] The television counts pertain to all televisions, including flat-screen televisions, as well as computer monitors (laptops and "computers," with no indication of a "computer monitor," were considered out of scope). For 2018 through 2020, of the annual average of 4,000 television-related injuries (television-only and television and furniture), 0.75% were computer monitors.
[14] From 2018 through 2020, there were 0 cases in which an appliance and furniture both fell, accounting for 0.00% of the 3-year annual average estimated injuries. For 2011 through 2020, scenarios in which both an appliance and furniture fell accounted for 0.08% of all furniture-only and appliance and furniture estimated injuries.

Figure 1 shows the yearly ED-treated tip-over injury estimates including all ages, for 2011 through 2020, for all tip overs, tip overs involving only furniture, and all tip overs involving a television.[15] For 2011 through 2020, there is a statistically significant linear decline in television-only, in furniture-only, and in overall ED-treated tip-over injuries including all ages. The decline in the estimated number of overall injuries in large part, is due to the decline in tip overs involving a television during those years. The estimated number of injuries may have been influenced by the effect of the COVID-19 pandemic for the year 2020. Data were insufficient to test statistically for any trends in the appliance-only category for the entire period 2011 through 2020.

Figure 1
Annual Average of Estimated ED-Treated Injuries Due to Product Instability or Tip Overs for All Ages by Year 2011–2020



Source: U.S. Consumer Product Safety Commission: NEISS. The estimates include cases for television, furniture, and appliance product codes, as described in Appendix B.

[15] "Furniture-Only-Related" estimates do not appear in Table 1a; estimates for "All Television-Related" tip overs are summed using "Television-Only" and "TV+ Furn" categories in Table 1a.

Table 1b shows the national annual average estimates of ED-treated tip-over injuries involving children ages 0 to 17 years old. From 2011 through 2020, there is a statistically significant linear decline in television-only and in furniture-only[16] ED-treated tip-over injuries to children. There is also a statistically significant linear decline in overall tip-over injuries to children from 2011 through 2020. Data were insufficient to test statistically for any trends in the appliance-only category for the entire period 2011 through 2020. During the most recent years, 2018 through 2020, about 1 in every 5 of all ED-treated tip-over injuries to children involved a television (including only a television, or a television and furniture).

Table 1b
Annual Average of Estimated ED-Treated Injuries Due to Product Instability or Tip Overs Among Children Under 18 Years by Year 2011–2020

Estimated ED-Treated Injuries[17]				
Year	**Television-Only**	**All Furniture ([TV + Furn]; [Furn + Appl & Furn-Only])**	**Appliance-Only**	**Television, Furniture, and Appliance Total**
Annual Average (2018 – 2020)	1,800	7,900 (–; 7,600)	–	**10,000**
Average 95% Confidence Interval (CI)	(1,300 – 2,400)	(5,600 – 10,200) ((–); (5,300 – 9,900))	–	**(7,200 – 12,700)**
2020	1,700	6,100 (–; 6,000)	–	**8,100**
2019	1,800	8,300 (–; 8,100)	–	**10,500**
2018	2,000	9,200 (–; 8,700)	–	**11,300**
2017	3,300	8,800 (–; 8,300)	–	**12,100**
2016	3,800	10,100 (–; 9,000)	–	**13,900**
2015	5,900	9,900 (–; 8,900)	–	**16,000**
2014	6,400	11,000 (1,600; 9,300)	–	**17,400**
2013	6,200	12,200 (2,100; 10,100)	–	**18,400**
2012	9,500	13,600 (2,800; 10,800)	–	**23,200**
2011	9,600	13,600 (3,000; 10,600)	–	**23,400**

Source: U.S. Consumer Product Safety Commission: NEISS. The estimates include cases for television, furniture, and appliance product codes, as described in Appendix B. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Estimates are rounded to the nearest hundred and may not add up to the total, due to rounding.

[16] Although "furniture-only" estimates do not appear in Table 1b, a trend analysis was performed for estimated ED-treated tip-over injuries to children when only furniture tipped over (*e.g.*, no appliance and furniture; and no television and furniture scenarios included). A statistically significant decreasing linear trend over the years 2011 through 2020 was found.

[17] The CVs for the given estimates ranged from 0.0695 to 0.2371.

Table 1c shows the national annual average estimates of ED-treated tip-over injuries involving adults ages 18 to 59 years old. From 2011 through 2020, there is a statistically significant linear decline in furniture-only[18] and in overall ED-treated tip-over injuries to adults. Data were insufficient to test statistically for any trends in the television-only and appliance-only categories for the entire period 2011 through 2020. For the years 2018 through 2020, about 15 percent of all adult ED-treated tip-over injuries involved a television (including only a television, or a television and furniture).

Table 1c
Annual Average of Estimated ED-Treated Injuries Due to Product Instability or Tip Overs Among Adults Ages 18 to 59 Years by Year 2011–2020

Estimated ED-Treated Injuries[19]				
Year	**Television-Only**	**All Furniture ([TV + Furn]; [Furn + Appl & Furn-Only])**	**Appliance-Only**	**Television, Furniture, and Appliance Total**
Annual Average (2018 – 2020)	1,200	6,700 (–; 6,700)	400	**8,400**
Average 95% Confidence Interval (CI)	(900 – 1,500)	(5,600 – 7,800) (–; (5,600 – 7,800))	(200 – 600)	**(7,100 – 9,600)**
2020	–	5,100 (–; 5,100)	–	**6,300**
2019	1,400	6,600 (–; 6,600)	–	**8,300**
2018	1,300	8,400 (–; 8,300)	–	**10,500**
2017	1,800	8,600 (–; 8,500)	–	**11,200**
2016	1,700	6,900 (–; 6,900)	–	**9,200**
2015	2,800	7,300 (–; 7,100)	–	**11,000**
2014	3,200	9,300 (–; 9,100)	–	**13,500**
2013	3,700	8,300 (–; 8,100)	–	**12,900**
2012	3,200	8,900 (–; 8,900)	–	**13,100**
2011	3,500	8,300 (–; 8,200)	1,700	**13,400**

Source: U.S. Consumer Product Safety Commission: NEISS. The estimates include cases for television, furniture, and appliance product codes, as described in Appendix B. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Estimates are rounded to the nearest hundred and may not add up to the total, due to rounding.

[18] Although "furniture-only" estimates do not appear in Table 1b, a trend analysis was performed for estimated ED-treated tip-over injuries to adults when only furniture tipped over (*e.g.*, no appliance and furniture or television and furniture scenarios included). A statistically significant decreasing linear trend over the years 2011 through 2020 was found.

[19] The CVs for the given estimates ranged from 0.0749 to 0.2324.

Table 1d shows the national annual average estimates of ED-treated tip-over injuries involving seniors ages 60 years and older. From 2011 through 2020, no linear trend was detected for furniture (whether a television was or was not involved), or for overall ED-treated tip-over injuries for seniors. Data were insufficient to test statistically for any trends in the television-only and appliance-only categories for the entire period 2011 through 2020. For the years 2018 through 2020, about 16 percent of all senior ED-treated tip-over injuries involved a television (including only a television, or a television and furniture).

Table 1d
Annual Average of Estimated ED-Treated Injuries Due to Product Instability or Tip Overs Among Seniors 60 years and Older by Year 2011–2020

Estimated ED-Treated Injuries[20]				
Year	**Television-Only**	**All Furniture ([TV + Furn]; [Furn + Appl & Furn-Only])[21]**	**Appliance-Only**	**Television, Furniture, and Appliance Total**
Annual Average (2018 – 2020)	700	3,300 (–; 3,300)	–	**4,200**
Average 95% Confidence Interval (CI)	(400 – 900)	(2,400 – 4,200) (–; (2,400–4,200))	–	**(3,100 – 5,300)**
2020	–	3,000 (–; 3,000)	–	**3,700**
2019	–	3,000 (–; 2,900)	–	**3,700**
2018	–	3,900 (–; 3,900)	–	**5,200**
2017	–	2,700 (–; 2,600)	–	**3,800**
2016	–	2,800 (–; 2,800)	–	**3,700**
2015	–	3,300 (–; 3,300)	–	**3,800**
2014	–	2,300 (–; 2,300)	–	**3,300**
2013	–	1,800 (–; 1,800)	–	**2,400**
2012	–	2,400 (–; 2,300)	–	**3,500**
2011	–	2,200 (–; 2,100)	–	**3,300**

Source: U.S. Consumer Product Safety Commission: NEISS. The estimates include cases for television, furniture, and appliance product codes, as described in Appendix B. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Estimates are rounded to the nearest hundred and may not add up to the total, due to rounding.

For the remainder of the injury section, furniture category estimates also include incidents in which both a television and furniture fell. There were no injuries of a victim of any age involving both an appliance and furniture falling in the period 2018 through 2020.

[20] The CVs for the given estimates ranged from 0.1296 to 0.2650.
[21] There were no senior injuries in which an appliance and furniture both fell in any year from 2011 through 2020.

Table 2 presents the estimated annual average number of ED-treated tip-over injuries for the various product categories by victim age category, and the percent of the total estimated number of injuries in parentheses for each category breakdown. As the table shows, children younger than 10 years of age account for the largest proportion of product instability or tip-over injuries, with an estimated annual average of 8,900 injuries, which is 39 percent of all tip-over injuries. Children under 10 years old also had the most furniture-related injuries (7,100 injuries; 31 percent of all injuries), and the most television-only injuries (1,600 injuries; 7 percent of all injuries).

Table 2
Annual Average of Estimated ED-Treated Injuries Due to Product Instability or Tip Overs by Victim Age Category 2018–2020

Age Category (in years)	Estimated ED-Treated Injuries [22] (Percent of Total Estimate)		
	Television-Only	All Furniture (TV + Furn & Furn + Appl & Furn-Only)	Television, Furniture, and Appliance Total
<1 – 9	1,600 (7%)	7,100 (31%)	**8,900 (39%)**
10 – 19	_	1,100 (5%)	**1,400 (6%)**
20 – 29	_	1,300 (6%)	**1,600 (7%)**
30 – 39	_	1,900 (9%)	**2,200 (10%)**
40 – 49	_	1,800 (8%)	**2,300 (10%)**
50 – 59	400 (2%)	1,500 (6%)	**1,900 (9%)**
60 – 69	_	1,000 (5%)	**1,400 (6%)**
≥ 70	400 (2%)	2,200 (10%)	**2,800 (12%)**
Total	**3,700 (16%)**	**17,900 (79%)**	**22,500 (100%)**

Source: U.S. Consumer Product Safety Commission: NEISS. The estimates include cases for television, furniture, and appliance product codes, as described in Appendix B. Appliance tip overs, not shown as a separate column in the table, account for 4% of the total estimated injuries. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Estimates are rounded to the nearest hundred and may not add up to the total, due to rounding.

[22] The CVs for the given estimates (2018–2020) ranged from 0.1036 to 0.2355.

To simplify the analysis, for the remainder of this report, the age groups of children (younger than 18 years), adults (18 years to younger than 60 years), and seniors (60 years and older) are used when discussing product instability or tip-over-related injuries for television-only, furniture-related, and appliance-only categories. Children account for almost half (44 percent) of all ED-treated instability or tip-over injury estimates from 2018 through 2020. Adults and seniors account for 37 percent and 19 percent of all tip-over injuries from 2018 through 2020, respectively.

Table 3 presents national annual average estimates of ED-treated tip-over injuries by age group and product category. The injury rates, per 100,000 people of each age group, are shown in parentheses next to the estimates. The furniture category, which includes scenarios when both a television and furniture fall, was associated with most of the estimated injuries for each age group. Of the three age groups, children sustain the highest annual average estimated number of ED-treated injuries (10,000 injuries), as well as the highest rate of tip-over injuries occurring in the population (14 injuries per 100,000 population). The injury rates are similar among the adult and senior age groups; the senior group incurred an estimated six injuries per 100,000 population and the adult group incurred an estimated five injuries per 100,000 population.

Table 3
Annual Average of Estimated ED-Treated Injuries Due to Product Instability or Tip Overs by Product and Victim Age Category 2018–2020

Annual Average 2018 – 2020	Estimated ED-Treated Injuries[23] (Emergency Department Injuries Per 100,000 U.S. Population[24])		
	Children (<1 to 17 years)	Adults (18 to 59 years)	Seniors (≥60 years)
Televisions, Furniture, and Appliances	10,000 (14)	8,400 (5)	4,200 (6)
Average 95% Confidence Interval (CI)	(7,200, 12,700)	(7,100, 9,600)	(3,100, 5,300)
Television-Only	1,800 (3)	1,200 (1)	700 (1)
All Furniture (TV + Furn & Furn + Appl & Furn-Only)	7,900 (11)	6,700 (4)	3,300 (4)
Appliance-Only	–	400 (<1)	–

Source: U.S. Consumer Product Safety Commission: NEISS. The estimates include cases for television, furniture, and appliance product codes, as described in Appendix B. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Estimates are rounded to the nearest hundred and may not add up to the total, due to rounding.

[23] The CVs for the given estimates (2018–2020) ranged from 0.0748 to 0.2324.

[24] The U.S. population estimate for each age group is an average of 2018–2020 data of that age group from the "Annual Estimates of the Resident Population by Single Year of Age and Sex" file in the U.S. Census data found at: https://www.census.gov/programs-surveys/popest/technical-documentation/research/evaluation-estimates/2020-evaluation-estimates/2010s-national-detail.html.

Children account for the largest portion of television-only and furniture-related injuries. The estimates related to children can be further subdivided into age categories for victims less than 1-year-old (less than 1 month to 11 months), 1-year-old (12 months to 23 months), 2 years old (24 months to 35 months), 3 years old (36 months to 47 months), 4 years old (48 months to 59 months), 5 years old (60 months to 71 months), 6 years old (72 months to 83 months), and children 7 years to 17 years old. Table 4 presents national annual average estimates of ED-treated tip-over injuries by age group and product category. The injury rates, per 100,000 people of each age group, are shown in parentheses next to the estimates.

As seen in Table 4, out of all children, victims ages 1 to 4 years account for 60 percent of all tip overs. For the furniture-related category, 1-year-olds and 2-year-olds account for the highest number of estimated injuries (1,400 and 1,300 injuries, respectively). Children ages 1-year-old and 2-years-old sustain the highest rate of tip-over injuries occurring in the population (48 injuries and 44 injuries per 100,000 population, respectively)

Table 4
Annual Average of Estimated ED-Treated Injuries Due to Product Instability or Tip Overs by Selected Child Victim Age Category 2018–2020

Child Age Category (in years)	Estimated ED-Treated Injuries for Children[25] (Injury Rate Per 100,000 Persons)		
	Television-Only	All Furniture (TV + Furn & Furn + Appl & Furn-Only)	Television, Furniture, and Appliance Total
<1	–	600 (16)	**700 (18)**
1	–	1,400 (38)	**1,800 (48)**
2	–	1,300 (34)	**1,700 (44)**
3	–	1,000 (26)	**1,400 (35)**
4	–	800 (20)	**1,000 (25)**
5	–	700 (17)	**700 (19)**
6	–	–	**500 (12)**
7 – 17	–	1,700 (4)	**2,100 (5)**
Total	**1,800 (3)**	**7,900 (11)**	**10,000 (14)**

Source: U.S. Consumer Product Safety Commission: NEISS. The estimates include cases for television, furniture, and appliance product codes, as described in Appendix B. Appliance tip overs, not shown as a separate column in the table, account for 2% of the total estimated injuries. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Estimates are rounded to the nearest hundred and may not add up to the total, due to rounding.

[25] The CVs for the given estimates (2018–2020) ranged from 0.1410 to 0.2813.

In Table 5, the furniture-related tip-over injury estimates are classified further by furniture subcategory. Tables were involved in more than one in three (37 percent) ED-treated tip-over injuries involving furniture over all ages; and tables were also the largest furniture-related category for each age group: children, adults, and seniors.

Children were the age group with the most furniture-related ED-treated injuries (44 percent), followed by adults (38 percent), and the senior age group (18 percent). There was an estimated annual average of 2,400 ED-treated injuries to children involving chests, bureaus, and dressers; of these, 8 percent are known to have involved a fallen television as well. Among the 17,900 annual average estimated furniture-related injuries over all ages from 2018 through 2020, about 2 percent indicated a television also fell.

Table 5
Annual Average of Estimated ED-Treated Injuries Due to Product Instability or Tip Overs by Furniture Subcategories 2018–2020

Furniture Subcategory	Estimated ED-Treated Injuries[26] (Percent of Total Estimate)			
	Children (<1 to 17 years)	Adults (18 to 59 years)	Seniors (60 years and older)	All Ages Total
Tables	3,200 (17%)	2,200 (13%)	1,200 (7%)	**6,700 (37%)**
Chests, Bureaus, and Dressers (CBD)	2,400 (13%)	800 (5%)	–	**3,500 (20%)**
Shelving, Shelving Units, and Bookcases (Shelf)	1,200 (7%)	2,000 (11%)	900 (5%)	**4,000 (22%)**
Cabinets	–	1,000 (5%)	400 (2%)	**1,700 (10%)**
Remaining Furniture Subcategory	800 (5%)	700 (4%)	400 (3%)	**1,800 (11%)**
Total	**7,900 (44%)**	**6,700 (38%)**	**3,300 (18%)**	**17,900 (100%)**

Source: U.S. Consumer Product Safety Commission: NEISS. The estimates include cases for furniture product codes, as described in Appendix B. It includes cases where a television or appliance also fell. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Estimates are rounded to the nearest hundred and may not add up to the total, due to rounding.

[26] The CVs for the given estimates (2018–2020) ranged from 0.1056 to 0.2308.

There were an estimated 11,400 females injured (51 percent) and an estimated 11,100 males injured (49 percent) annually among all product instability or tip-over incidents for all ages. Table 6 presents the estimates for each victim age category by product category and sex. There was no statistical difference by sex in children, adults, seniors, or all ages combined for any of the categories: television-only, furniture-related, or the combined category estimate of all tip-over incidents.[27]

Table 6
Annual Average of Estimated ED-Treated Injuries Due to Product Instability or Tip Overs by Sex 2018–2020

Age Group	Sex	Estimated ED-Treated Injuries[28] (Percent of Total Estimate)			
		Television-Only	All Furniture (TV + Furn & Furn + Appl & Furn-Only)	Appliance-Only	Television, Furniture, and Appliance Total
Children	Female	800 (4%)	3,400 (15%)	–	**4,300 (19%)**
	Male	1,000 (4%)	4,500 (20%)	–	**5,600 (25%)**
Adults	Female	700 (3%)	3,900 (17%)	–	**4,700 (21%)**
	Male	500 (2%)	2,800 (13%)	–	**3,700 (16%)**
Seniors	Female	400	2,000 (9%)	–	**2,500 (11%)**
	Male	–	1,300 (6%)	–	**1,800 (8%)**
All Ages	Female	**1,900 (8%)**	**9,400 (42%)**	–	**11,400 (51%)**
	Male	**1,800 (8%)**	**8,600 (38%)**	**700 (3%)**	**11,100 (49%)**
Total		**3,700 (16%)**	**17,900 (79%)**	**900 (4%)**	**22,500 (100%)**

Source: U.S. Consumer Product Safety Commission: NEISS. The estimates include cases for television, furniture, and appliance product codes, as described in Appendix B. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Estimates are rounded to the nearest hundred and may not add up to the total, due to rounding.

Considering the location of injury, 66 percent of the estimated 22,500 injuries of all ages occurred in a residential location. Eight percent occurred in a public location, such as schools, churches, daycare centers, offices, restaurants, nursing homes, stores, or parks, and 25 percent happened in an unknown location. These percentages are somewhat similar for children (73 percent residential and 8 percent public) and adults (58 percent residential and 6 percent public), but seniors (66 percent residential, and 14 percent public) had a higher percent of public locations, which is probably due to nursing homes being coded as public locations.

The disposition of the ED-treated tip-over injuries show that most victims (95 percent of children, 93 percent of adults, and 74 percent of seniors) were treated and released; however, 20 percent of the seniors were hospitalized.

[27] Data were insufficient to test statistically for a difference in sex for senior television-only tip-over injuries.
[28] The CVs for the given estimates (2018–2020) ranged from 0.0714 to 0.2310.

The primary injury diagnoses,[29] which are independent of the disposition of the patients, were examined for children, adults, and seniors. Table 7 presents the breakdown of the diagnoses (where available) for the different product categories and age groups. The most common injury diagnosis was a contusion or abrasion for all age groups combined (6,800; 30 percent), and for each age group alone. Contusions and abrasions were also the most frequent injury diagnoses for the furniture-related category for each age group. The next most prevalent diagnoses of all age groups combined were internal organ injuries (3,500; 16 percent), fractures (3,400; 15 percent), and lacerations (3,000; 13 percent). Children were diagnosed with internal organ injuries at a higher rate than any other diagnosis, compared to adults and seniors, primarily because of the many head injuries to children in tip-over incidents.

Table 7
Annual Average of Estimated ED-Treated Injuries Due to Product Instability or Tip Overs by Diagnosis 2018–2020

Primary Diagnosis	Age Group	Estimated ED-Treated Injuries[30] (Percent of Total Estimate)		
		Television-Only	All Furniture (TV + Furn & Furn + Appl & Furn-Only)	Television, Furniture, and Appliance Total
Contusions, Abrasions	Children	600 (3%)	2,500 (11%)	**3,200 (14%)**
	Adults	–	2,200 (10%)	**2,600 (12%)**
	Seniors	–	800 (4%)	**1,000 (5%)**
Internal Organ Injury	Children	500 (2%)	1,500 (7%)	**2,000 (9%)**
	Adults	–	700 (3%)	**900 (4%)**
	Seniors	–	500 (2%)	**700 (3%)**
Lacerations	Children	–	1,300 (6%)	**1,400 (6%)**
	Adults	–	800 (4%)	**1,000 (5%)**
	Seniors	–	500 (2%)	**500 (2%)**
Fractures	Children	–	1,100 (5%)	**1,300 (6%)**
	Adults	–	1,000 (5%)	**1,400 (6%)**
	Seniors	–	500 (2%)	**700 (3%)**
Strains or Sprains	Children	–	–	–
	Adults	–	500 (2%)	**700 (3%)**
	Seniors	–	–	–
All Other Diagnoses	Children	–	1,500 (7%)	**1,800 (8%)**
	Adults	–	1,500 (7%)	**1,800 (8%)**
	Seniors	–	800 (3%)	**1,000 (5%)**
Total		**3,700 (16%)**	**17,900 (79%)**	**22,500 (100%)**

Source: U.S. Consumer Product Safety Commission: NEISS. The estimates include cases for television, furniture, and appliance product codes, as described in Appendix B. Appliance tip overs, not shown as a separate column in the table, account for 4% of the total estimated injuries. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Estimates are rounded to the nearest hundred and may not add up to the total, due to rounding.

[29] Beginning in 2018 NEISS incidents, there are up to two diagnoses coded for each patient visit. For this report, only the first diagnosis coded is used for estimates in Table 7, because the first diagnosis listed refers to the most severe diagnosis resulting from the tip-over incident.
[30] The CVs for the given estimates (2018–2020) ranged from 0.1187 to 0.2689.

Table 8 presents the primary body parts injured in the ED-treated tip-over injuries.[31] About 1 in 5 (20 percent) of all estimated ED-treated tip-over injuries of all ages were head injuries to children. Most injuries to children were head injuries (4,500 injuries), and injuries to the legs, feet, and toes (3,000 injuries). Among the estimated annual 4,500 ED-treated injuries to the head among children, 2,000 were diagnosed as internal organ injuries, 900 were contusions or abrasions, 900 were lacerations, and the remaining injuries were other diagnoses. Most injuries to adults were to the legs, feet, and toes (3,500 injuries), and to the arms, hands, and fingers (1,800 injuries). Most injuries to seniors were to the legs, feet, and toes (1,300 injuries), and head (1,300 injuries).

Table 8
Annual Average of Estimated ED-Treated Injuries Due to Product Instability or Tip Overs by Area of Body 2018–2020

Primary Area of Body Affected	Age Group	Estimated ED-Treated Injuries[32] (Percent of Total Estimate)		
		Television-Only	All Furniture (TV + Furn & Furn + Appl & Furn-Only)	Television, Furniture, and Appliance Total
Head	Children	1,000 (4%)	3,400 (15%)	**4,500 (20%)**
	Adults	–	1,300 (6%)	**1,600 (7%)**
	Seniors	–	1,000 (4%)	**1,300 (6%)**
Legs, Feet, and Toes (Legs)	Children	500 (2%)	2,400 (11%)	**3,000 (13%)**
	Adults	–	3,000 (13%)	**3,500 (16%)**
	Seniors	–	1,100 (5%)	**1,300 (6%)**
Arms, Hands, and Fingers (Arms)	Children	–	1,200 (5%)	**1,400 (6%)**
	Adults	–	1,300 (6%)	**1,800 (8%)**
	Seniors	–	400 (2%)	**600 (2%)**
Torso	Children	–	700 (3%)	**800 (4%)**
	Adults	–	1,100 (5%)	**1,300 (6%)**
	Seniors	–	600 (2%)	**800 (3%)**
All Other Body Parts	Children	–	–	–
	Adults	–	–	–
	Seniors	–	–	–
Total		**3,700 (16%)**	**17,900 (79%)**	**22,500 (100%)**

Source: U.S. Consumer Product Safety Commission: NEISS. The estimates include cases for television, furniture, and appliance product codes, as described in Appendix B. Appliance tip overs, not shown as a separate column in the table, account for 4% of the total estimated injuries. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Estimates are rounded to the nearest hundred and may not add up to the total, due to rounding.

[31] Beginning in 2018 NEISS incidents, there are up to two body parts coded for each patient visit. For this report, only the first body part coded is used for estimates in Table 8, because the first body part coded corresponds to the more severe and first coded diagnosis resulting from the tip-over incident.
[32] The CVs for the given estimates (2018–2020) ranged from 0.0947 to 0.2683.

NEISS data include variables called Race, RaceOth, and Hispanic, which record information about the race or ethnicity of ED-treated patients. These three variables were used when designating race/ethnicity categories for each patient. This resulted in five categories used for analysis on race/ethnicity in this report: (1) non-Hispanic Black or African American (Black), (2) Hispanic (all races) (Hispanic), (3) non-Hispanic White (White), (4) all other patients with known races/ethnicities or who identify as Multiracial (Other), and (5) patients with an unknown race/ethnicity. For the remainder of the injury section of this report, these category names (*i.e.,* Black, Hispanic, White, and Other) are used to refer to the above-described groups. This specific grouping aligns with the population data grouping presented by the U.S. Census Bureau. Please refer to Appendix A for more detail about the race/ethnicity variables, and the methods used to categorize patients by the three NEISS coded race/ethnicity variables.

As of the writing of this report, the Hispanic ethnicity variable has only been completely recorded for NEISS years 2019 and 2020. Therefore, analysis concerning race/ethnicity for the annual average estimated number of ED-treated tip-over injuries is based on the years 2019 and 2020. Estimates of tip-over injuries involving races/ethnicities other than Black, Hispanic, or White are not statistically reliable, and hence, not presented.

From 2019 through 2020, out of the estimated annual average of 20,300 tip-over injuries to all ages, 6,100 (30 percent) were to patients with an unknown race/ethnicity, and 14,200 (70 percent) were to patients with a known race/ethnicity. From 2019 through 2020, 32 percent (2,900 injuries) of tip-over injuries to children, 25 percent (1,800 injuries) of tip-over injuries to adults, and 35 percent (1,300 injuries) of tip-over injuries to seniors were patients with an unknown race/ethnicity. To make comparisons, based on race/ethnicity, between the proportions of people in the U.S. population and the proportions of the estimated numbers of tip-over injuries by race/ethnicity, all injuries where the race/ethnicity of the patient is unknown is not reported in Table 9. Note that by excluding the 30 percent of injured people with an unknown race/ethnicity from analysis in Table 9 may mean that the percentages of injuries in the known race/ethnicity groups may misrepresent the proportions of the U.S. population in each group that was injured.

Table 9 presents the proportion of the estimated annual average number of ED-treated tip-over injuries by race/ethnicity to patients with a known race/ethnicity, as well as the estimated annual average proportions of the U.S. population in parentheses,[33] by age group and race/ethnicity, from the years 2019 through 2020. The proportionate number of people of each race/ethnicity in the U.S. population can be compared with the proportion of the estimated number of ED-treated tip-over injuries for each age group by race/ethnicity category.

[33] The U.S. population estimate for each age group is an average of 2019–2020 data of that age group, from the month of July from each year, from the "Monthly National Population Estimates by Age, Sex, Race, Hispanic Origin, and Population Universe for the United States: April 1, 2010 to December 1, 2020 (with short-term projections to December 2021)" file in the U.S. Census data found at: https://www.census.gov/programs-surveys/popest/technical-documentation/research/evaluation-estimates/2020-evaluation-estimates/2010s-national-detail.html.

Table 9
Proportion of Product Instability or Tip-Over-Related Estimated ED-Treated Injuries and the Annual Average Estimated Proportions of the U.S. Population by Race/Ethnicity and Age Group 2019–2020

Race / Ethnicity	Proportion of Estimated ED-Treated Injuries[34] (Annual Average Estimated Proportions of the U.S. Population) by Race/Ethnicity and Age Group			
	Children (<1 to 17 years)	Adults (18 to 59 years)	Seniors (≥60 years)	All Ages Total
White, Non-Hispanic*	61% (50%)	50% (58%)	86% (75%)	**60% (60%)**
Black / African American, Non-Hispanic*	18% (14%)	36% (13%)	– (10%)	**24% (13%)**
Hispanic (Any Race)	19% (26%)	– (20%)	– (9%)	**13% (19%)**
Other[35]	– (11%)	– (9%)	– (6%)	**– (9%)**
Total	**100% (100%)**	**100% (100%)**	**100% (100%)**	**100% (100%)**

Source: U.S. Consumer Product Safety Commission: NEISS. The estimates include cases for television, furniture, and appliance product codes, as described in Appendix B. All injuries where the race/ethnicity of the patient is unknown is not reported. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Estimates are rounded to the nearest percent and may not add up to the total, due to rounding. Asterisks (*) indicate Race/Ethnicity designations are for reported single race only.

From 2019 through 2020, of the patients categorized as White, compared to the proportion of the U.S. population categorized as White, there are:

- proportionately more White children injured (61 percent of injuries to 50 percent in the population);
- proportionately fewer White adults injured (50 percent of injuries to 58 percent in the population); and
- proportionately more White seniors injured (86 percent of injuries to 75 percent in the population).

From 2019 through 2020, of the patients categorized as Black, compared to the proportion of the U.S. population categorized as Black,[36] there are:

- proportionately slightly more Black children injured (18 percent of injuries to 14 percent in the population); and
- proportionately more Black adults injured (36 percent of injuries to 13 percent in the population).

[34] The CVs for the given estimates (2019–2020) ranged from 0.1117 to 0.2676.

[35] The Other category includes the proportion of the U.S. population that are not counted among the non-Hispanic Black, Hispanic, or non-Hispanic White people in U.S. Census figures.

[36] Non-Hispanic Black people make up 13 percent of the U.S. population and make up 32 percent of all television-related tip-over injuries (Television-Only + Television and Furniture falling) among patients where race/ethnicity is known.

From 2019 through 2020, of the patients categorized as Hispanic, compared to the proportion of the U.S. population categorized as Hispanic, there are proportionately fewer Hispanic children injured (19 percent of injuries to 26 percent in the population).

Reported Fatalities[37]

Between 2000 and 2020, CPSC staff has received 581 reports of product instability or tip-over-related fatalities that were related to a television, furniture, or an appliance. The criteria for determining the in-scope cases are presented in Appendix B. Of these 581 reported fatalities, 184 deaths (32 percent) involved only a television falling, 174 deaths (30 percent) involved both a television falling and the furniture in/on which the television was resting also falling, 181 deaths (31 percent) involved only furniture falling, and 42 deaths (7 percent) involved only an appliance falling. Considering all deaths in which a television fell (television-only + television and furniture), there were 358 deaths (62 percent). Considering all deaths in which furniture fell (furniture-only + television and furniture), there were 355 deaths (61 percent). There were no deaths in which both furniture and an appliance fell.

Some differences are apparent between the numbers and classifications of fatalities in this report when compared with fatalities reported in past annual reports. The reason is two-fold; since the earlier publications, CPSC has received new reports of tip-over fatalities that occurred between 2000 and 2019, and CPSC has received additional information on some of the tip-over fatalities that appeared in past reports. This has necessitated re-evaluation of previous fatality categorizations for better consistency of the data. The details of these changes are provided in Appendix A.

[37] Reported fatalities come from the CPSRMS, an epidemiological database that houses all anecdotal reports of incidents received by CPSC, "external cause"-based death certificates purchased by CPSC, all in-depth investigations of these anecdotal reports, as well as investigations of select NEISS injuries. Examples of documents in CPSRMS include: hotline reports, Internet reports, news reports, medical examiner's reports, death certificates, retailer/manufacturer reports, and documents sent by state/local authorities, among others. Fatality counts should be considered incomplete for years 2019–2020, due to a time lag in reporting to CPSC.

Table 10 presents the reported instability or tip-over-related fatalities for televisions, furniture, and appliances by year of death. While data reporting is ongoing, especially for 2019 through 2020, it appears that the number of fatalities reported involving the furniture-only and appliance-only categories have not decreased in the most recent years, when compared to years dating back to 2000. Meanwhile, although it appears that the television-related categories are showing lower numbers in the more recent years 2016 through 2018, when compared to the previous decade of reporting, there have still been at least 3 fatalities reported involving a television in each of the past 2 years, 2019 and 2020, and reporting for these years is ongoing.

Table 10
Product Instability or Tip-Over-Related Fatalities Reported to CPSC by Year 2000–2020[38]

Year	Television-Only[39]	TV + Furniture	Furniture-Only	Appliance-Only	Television, Furniture, and Appliance Total	Percent of Total (n = 581)
2020*	3	0	3	1	**7**	**1%**
2019*	3	0	6	1	**10**	**2%**
2018	4	2	4	4	**14**	**2%**
2017	3	8	8	2	**21**	**4%**
2016	4	9	15	1	**29**	**5%**
2015	7	7	10	2	**26**	**4%**
2014	13	12	17	1	**43**	**7%**
2013	11	12	10	2	**35**	**6%**
2012	17	20	7	2	**46**	**8%**
2011	20	19	12	1	**52**	**9%**
2010	16	6	7	4	**33**	**6%**
2009	8	13	7	1	**29**	**5%**
2008	17	12	8	0	**37**	**6%**
2007	9	16	10	0	**35**	**6%**
2006	12	8	5	3	**28**	**5%**
2005	7	11	9	1	**28**	**5%**
2004	9	2	12	1	**24**	**4%**
2003	8	2	5	5	**20**	**3%**
2002	4	6	8	3	**21**	**4%**
2001	6	5	16	5	**32**	**6%**
2000	3	4	2	2	**11**	**2%**
Product Category Total	**184**	**174**	**181**	**42**	**581**	**100%**
Percent of Total (n = 581)	**32%**	**30%**	**31%**	**7%**	**100%**	

Source: CPSC databases, including NEISS and CPSRMS. Asterisks (*) indicate ongoing reporting.

Like the NEISS injuries, the reported fatalities have been separated into three distinct age categories: children (younger than 18 years of age); adults (ages 18 to 59 years); and seniors (60 years of age or older).

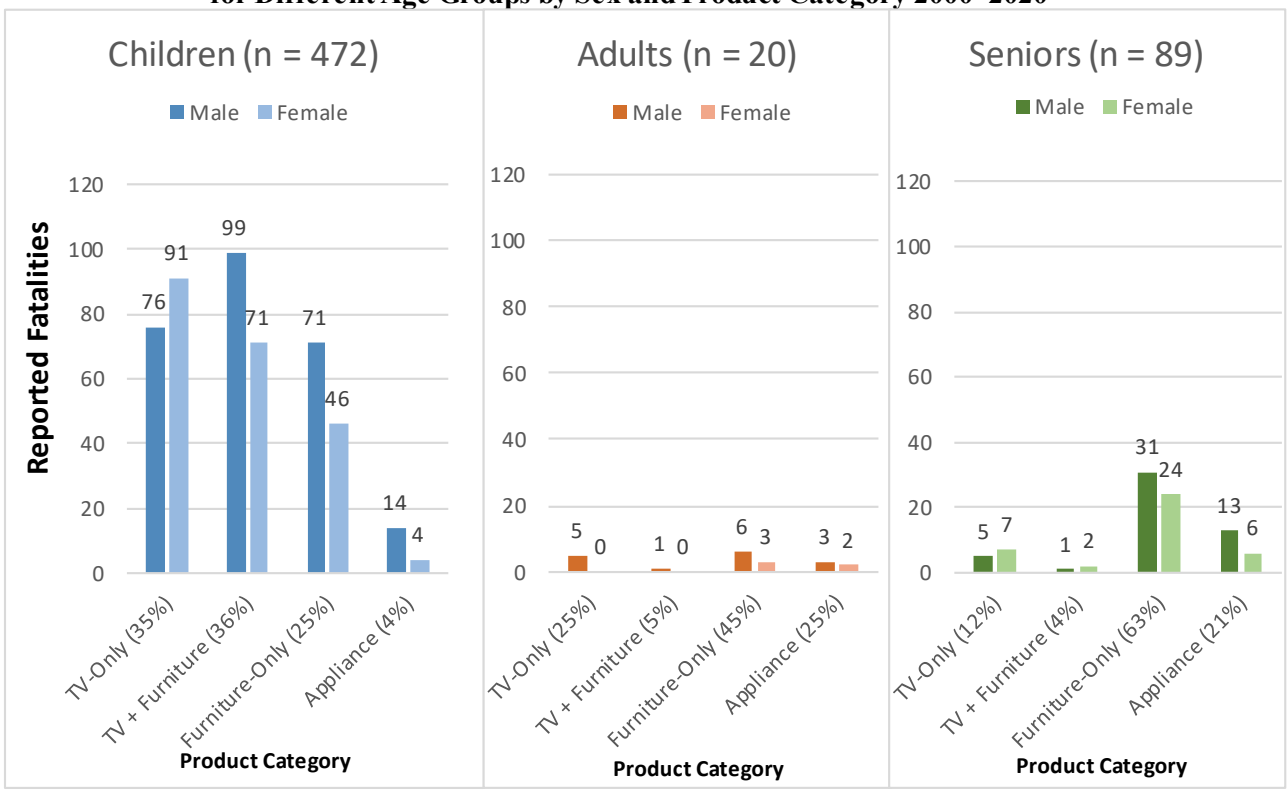
[38] There are no deaths involving both furniture and an appliance tipping over.
[39] There are no computer monitor-related fatalities among the television fatality counts.

Figure 2 presents the number of reported tip-over fatalities by sex and product category, among the different age groups. Of the 581 tip-over fatalities, 472 (81 percent) were children, 89 (15 percent) seniors, and the remaining 20 (3 percent) were adults.

Among the 472 child fatalities, 167 (35 percent) involved only a television falling, 170 (36 percent) involved both a television falling and the furniture in/on which the television was resting also falling, 117 (25 percent) involved only furniture falling, and 18 (4 percent) involved only an appliance falling.

Of the 167 child fatalities involving only a television falling, there does not appear to be a stark difference when comparing sexes; there were 91 female fatalities (54 percent), and 76 male fatalities (46 percent). The 287 fatalities involving children and furniture (with or without a television also falling) suggest differences based on sex. Of the 117 child fatalities involving only furniture, 71 were male (61 percent) and 46 were female (39 percent), and of the 170 child fatalities involving both a television and furniture falling, 99 were male (58 percent) and 71 were female (42 percent). It is harder to examine differences based on sex for the adult and senior groups, due to small counts.

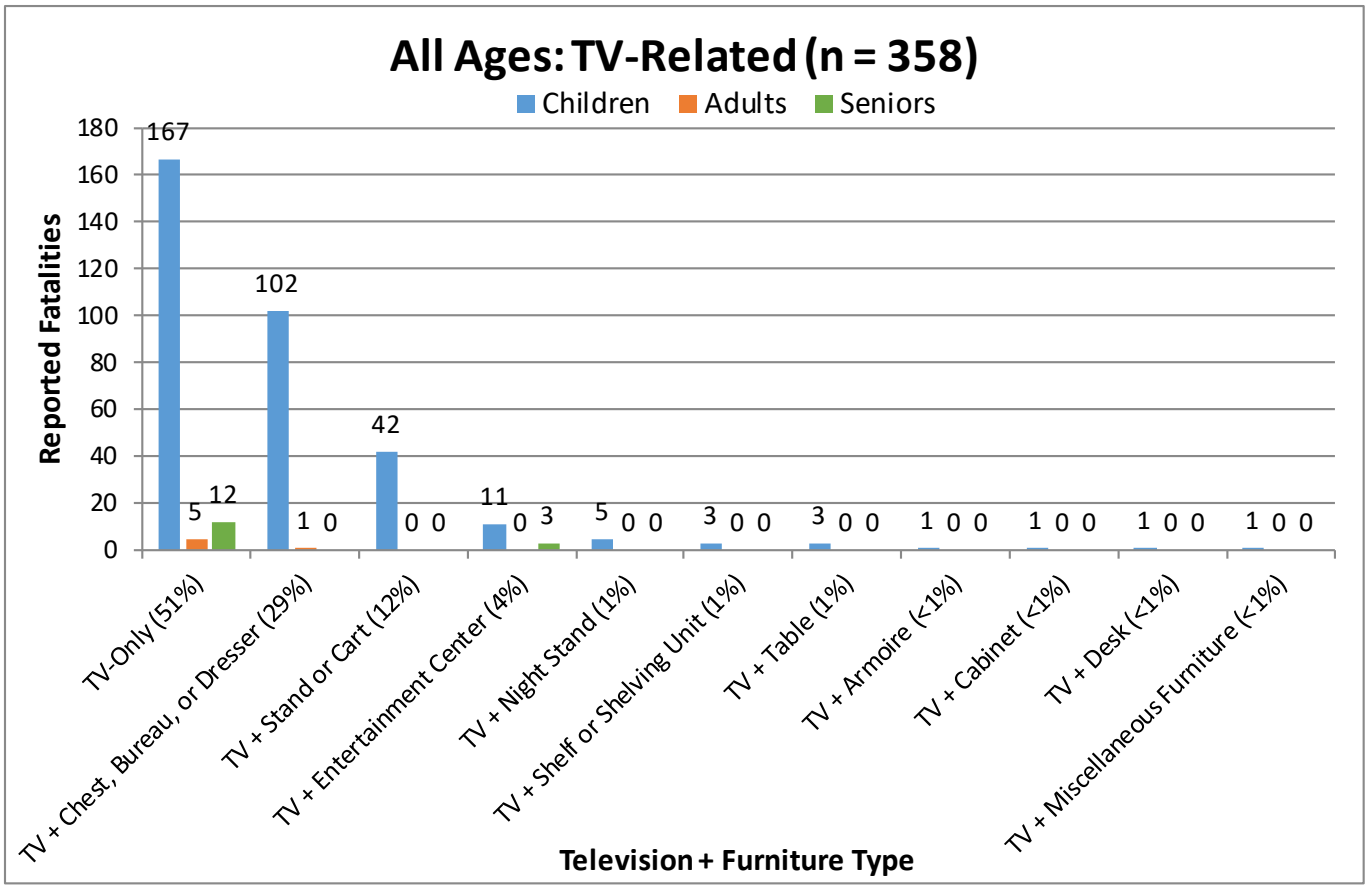
Figure 2
Product Instability or Tip-Over-Related Fatalities Reported to CPSC for Different Age Groups by Sex and Product Category 2000–2020



Source: CPSC databases, including NEISS and CPSRMS.

Among the 581 tip-over fatalities to all ages, 358 deaths (61 percent) involved televisions. Of the 358 television-related tip-over deaths of all ages, 337 fatalities (94 percent) were children; 15 fatalities (4 percent) were seniors; and 6 fatalities (2 percent) were adults. Figure 3 presents the frequencies of reported television-related tip-over fatalities by television and furniture type and victim age group.

Figure 3
Product Instability or Tip-Over-Related Fatalities Reported to CPSC by Television and Furniture Type[40] 2000–2020[41]



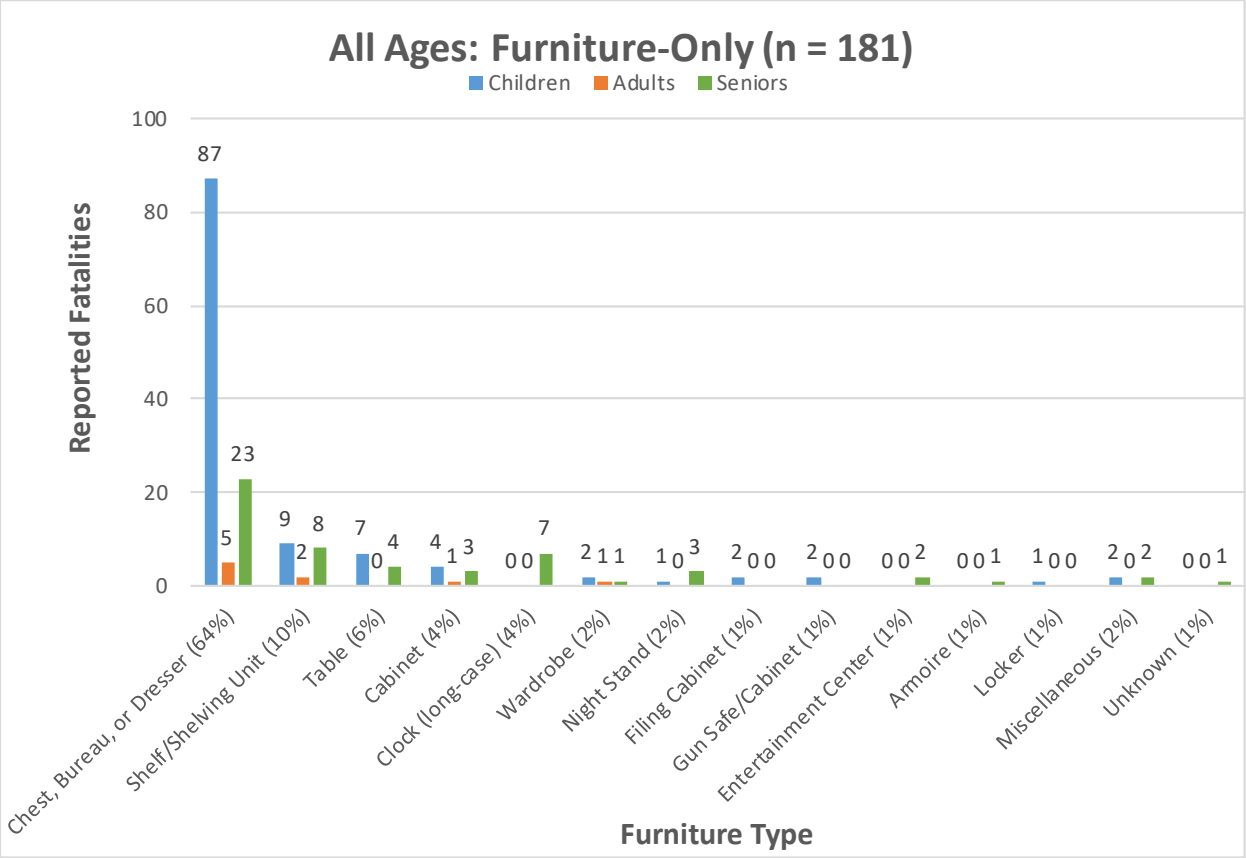
Source: CPSC databases, including NEISS and CPSRMS.

[40] Fatalities where it could not be determined if the furniture also tipped or fell are counted as only the television falling.
[41] The miscellaneous furniture is an antique phonograph cabinet.

Among all chest, bureau, and dresser-related tip-over fatalities to all ages, with a television (103 deaths) and without a television (115 deaths) also falling, there are 218 fatalities, which make up 38 percent of all tip-over fatalities. Of the 218 chest, bureau, and dresser-related tip-over fatalities, 189 (87 percent) involved children.

Among the 581 tip-over fatalities to all ages, 181 deaths (31 percent of all tip-over fatalities) involved only furniture falling. Of these 181 deaths, 117 fatalities (65 percent) were children; 55 fatalities (30 percent) were seniors; and 9 fatalities (5 percent) were adults. Figure 4 presents the frequencies for instability or tip-over deaths involving only furniture falling by furniture type and victim age group.[42]

Figure 4
Product Instability or Tip-Over-Related Fatalities Reported to CPSC for Furniture-Only by Furniture Type 2000–2020[43]

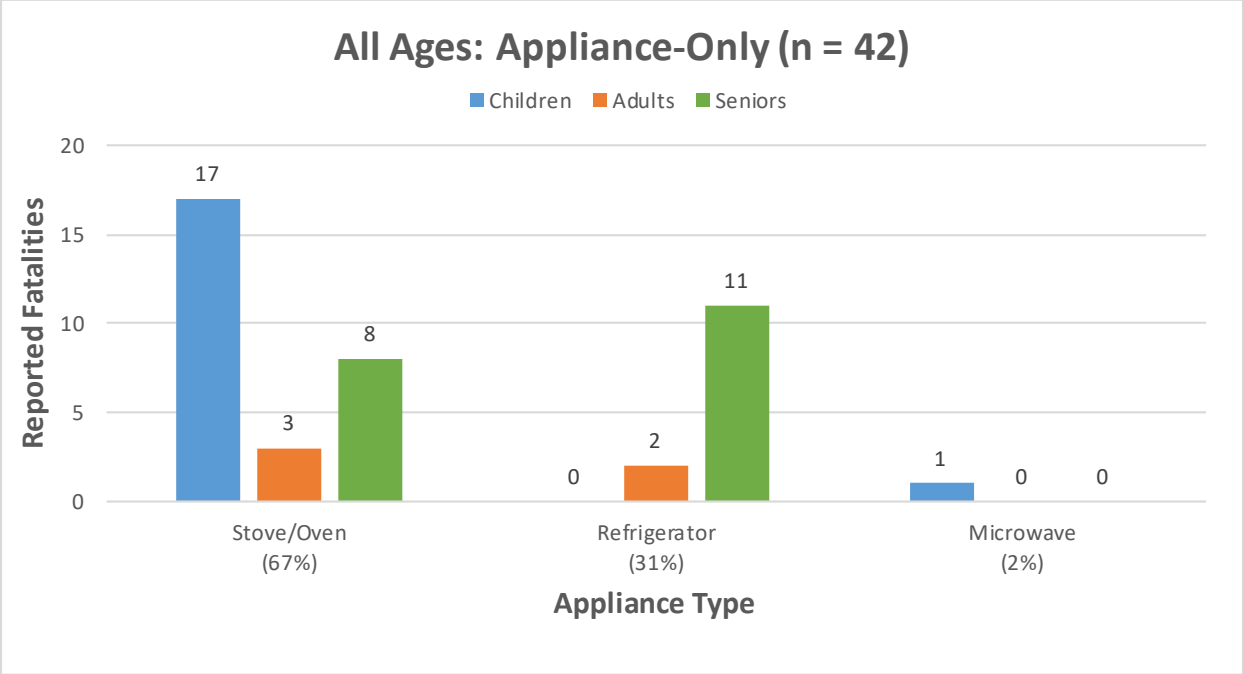


Source: CPSC databases, including NEISS and CPSRMS.

[42] The fatality where the furniture is unknown was described as either an armoire or a bookcase.
[43] Miscellaneous furniture includes: two coat racks, a portable storage closet, and a room divider.

The remaining 42 deaths (7 percent) of the 581 tip-over fatalities involved only an appliance falling. Of these 42 deaths, 19 fatalities were seniors; 18 were children; and 5 were adults. Figure 5 presents the frequencies of fatalities by appliance type and victim age group.

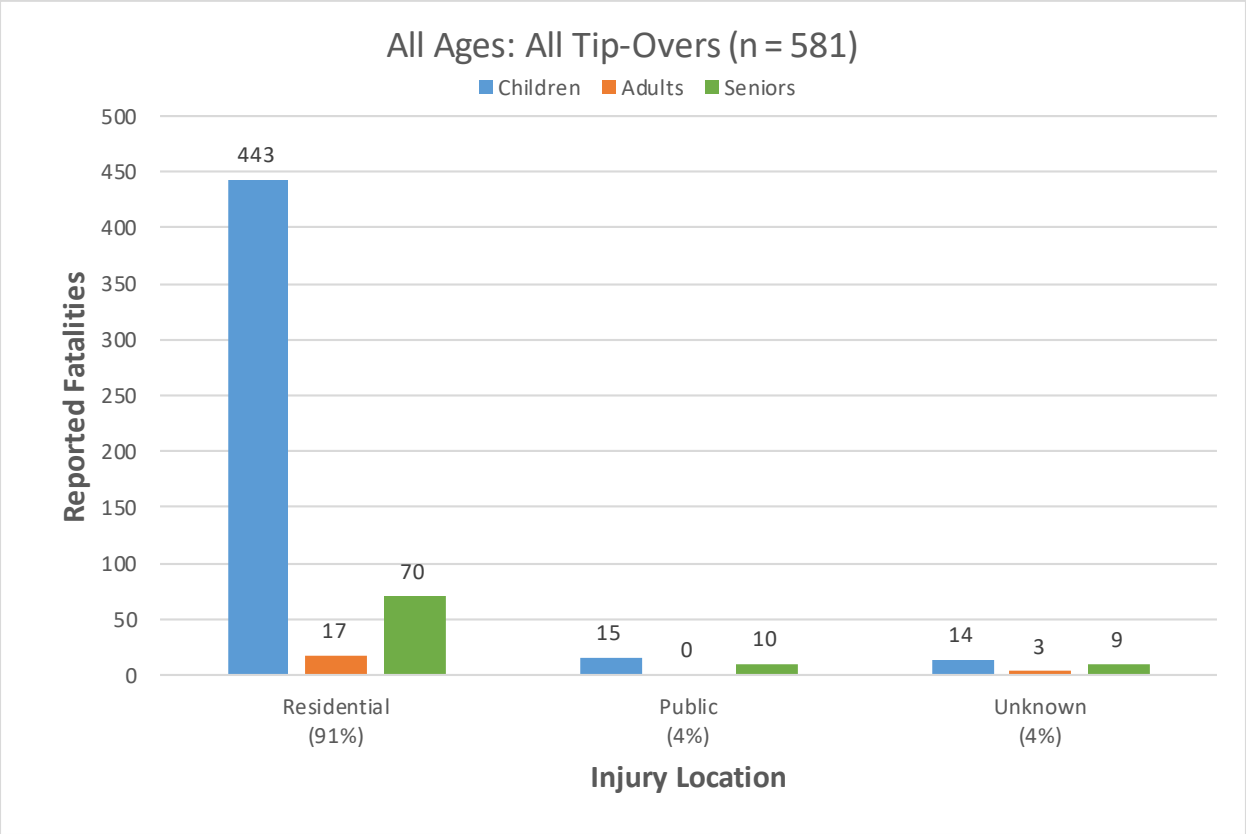
Figure 5
Product Instability or Tip-Over-Related Fatalities Reported to CPSC for Appliances by Appliance Type 2000–2020



Source: CPSC databases, including NEISS and CPSRMS.

Residential locations account for 521 (91 percent) of the 581 tip-over fatalities. Twenty-four deaths (4 percent) occurred in public locations, and 26 deaths (5 percent) did not provide enough information to determine the location. Fatalities to children had a similar distribution by location (94 percent residential, 3 percent public, and 3 percent unknown). Figure 6 presents the tip-over fatalities by location.

Figure 6
Product Instability or Tip-Over-Related Fatalities Reported to CPSC by Location 2000–2020[44]

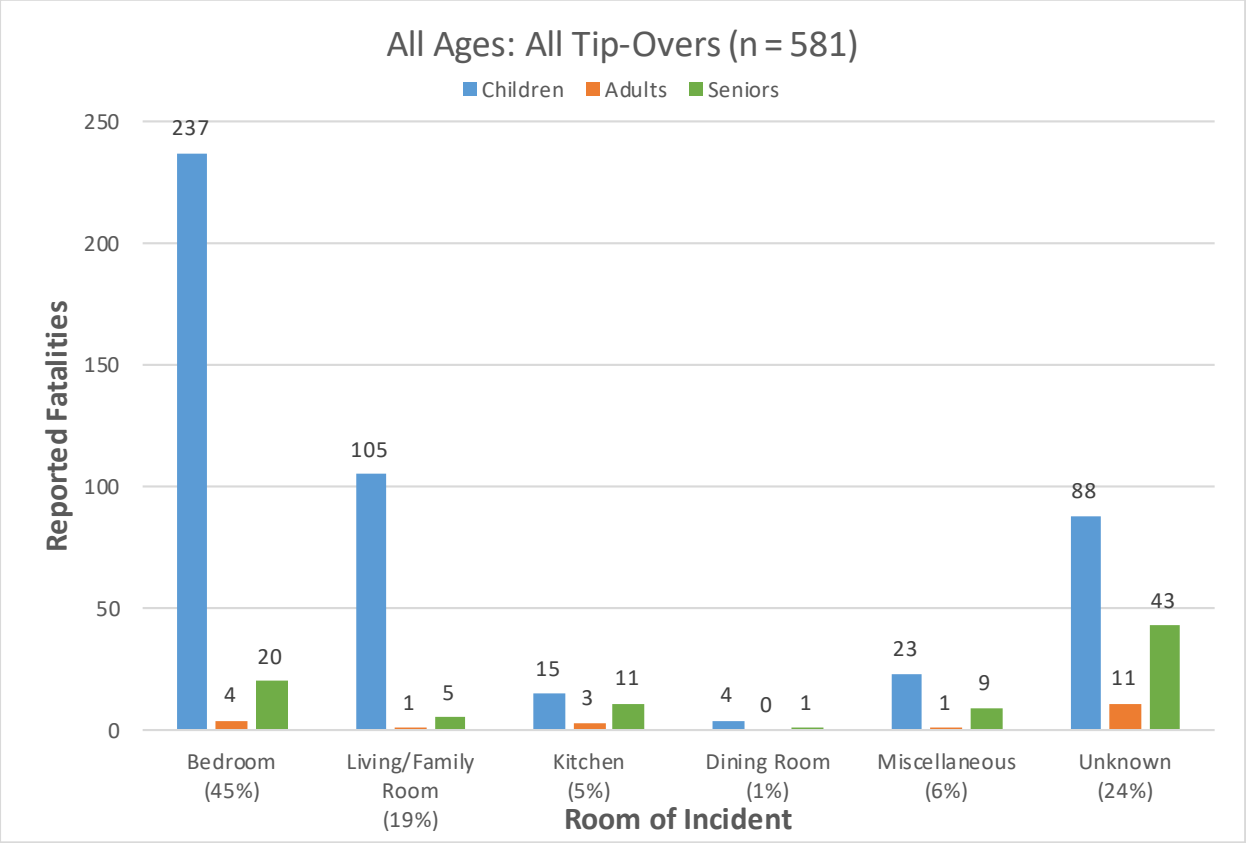


Source: CPSC databases, including NEISS and CPSRMS.

[44] Public locations include nursing homes and assisted living facilities in both the NEISS injury estimates and in the fatality section, which generally only affects the senior age group. Other public locations besides nursing homes include: churches, daycare centers, hotels, schools, and stores.

For the room where the incident occurred, the bedroom had the largest number of fatalities, with 261 deaths (45 percent). This is followed by the living/family room, with 111 deaths (19 percent). There is also a large portion of cases in which the room location is unknown (142 deaths: 24 percent). Of the 472 fatalities involving children, 237 deaths (50 percent) occurred in bedrooms, and 105 deaths (22 percent) happened in living/family rooms. For adults and seniors, there were many unknown room locations (11 fatalities, or 55 percent of adult deaths, and 43 fatalities, or 48 percent of senior deaths). Figure 7 presents the tip-over fatalities by room of incident and victim age group.

Figure 7
Product Instability or Tip-Over-Related Fatalities Reported to CPSC by Room of Incident 2000–2020[45]

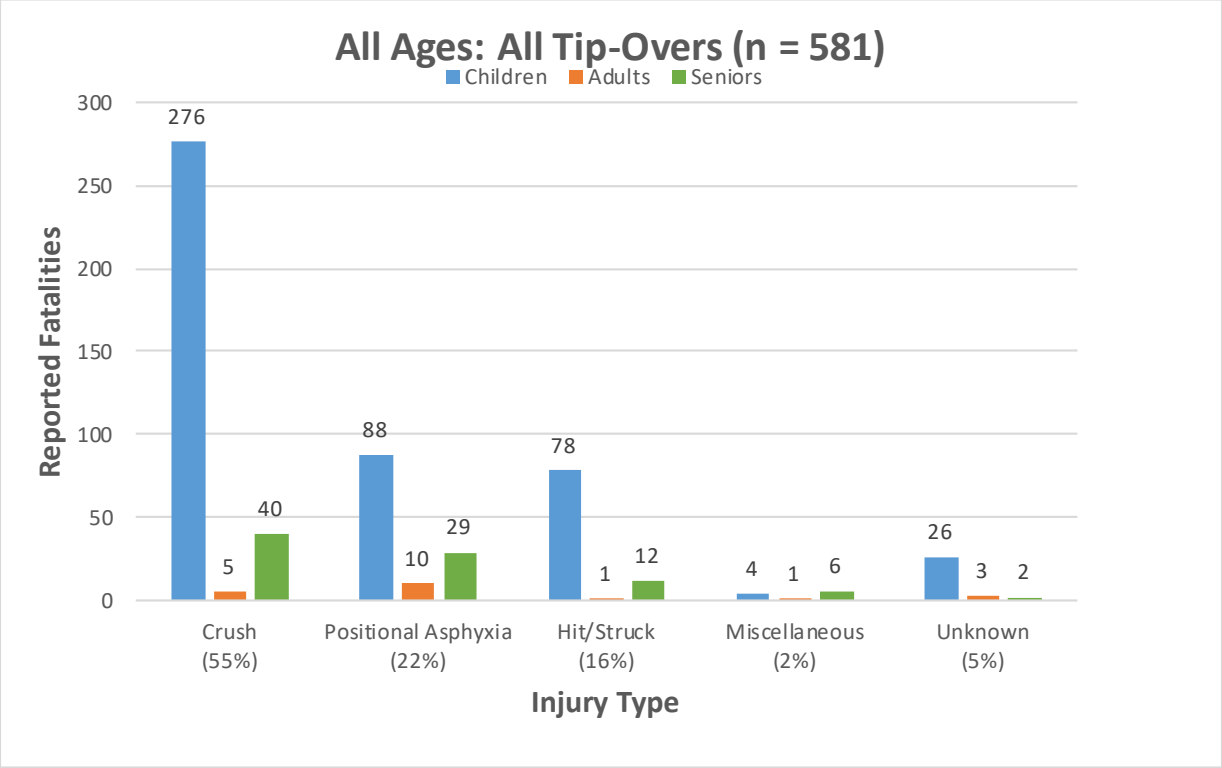


Source: CPSC databases, including NEISS and CPSRMS.

[45] Some of the miscellaneous rooms include: hallways, playrooms, garages, home offices, spare/storage rooms, daycare center rooms, and deaths in most public locations. Nursing home bedrooms, living/family, kitchen, and dining rooms are not in the miscellaneous category.

Figure 8 presents the frequencies of tip-over fatalities by manner of death. Most of the fatalities were due to the victim being crushed[46] by the television, furniture, or appliance (321 deaths: 55 percent). This is followed by fatalities that were the result of positional asphyxia[47] (127 deaths; 22 percent), and fatalities due to being hit/struck[48] (91 deaths; 16 percent) by product(s). Crushing incidents accounted for the largest number of fatalities in children (276 fatalities, or 58 percent of children deaths), and seniors (40 fatalities, or 45 percent of senior deaths). Positional asphyxia incidents accounted for the most adult deaths (9 fatalities, or 45 percent of adult deaths).

Figure 8
Product Instability or Tip-Over-Related Fatalities Reported to CPSC by Manner of Death 2000–2020[49]



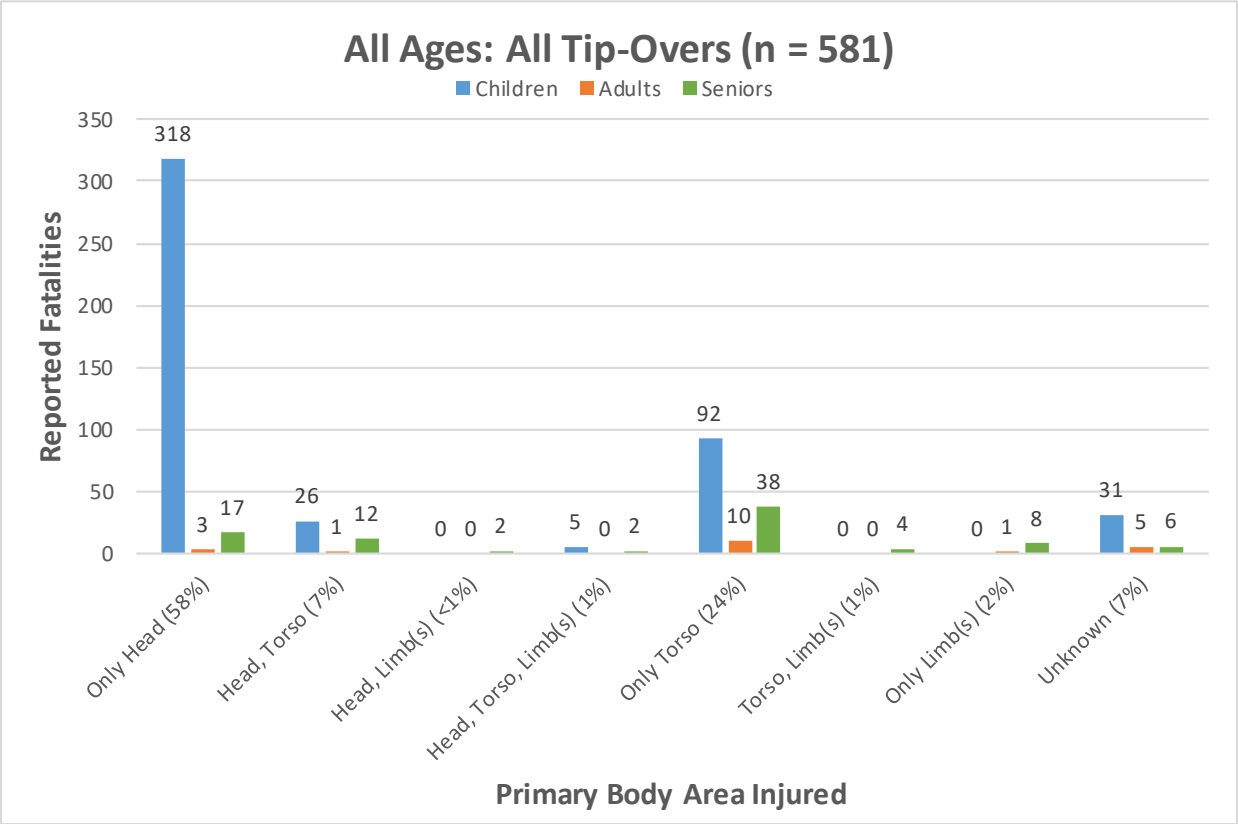
Source: CPSC databases, including NEISS and CPSRMS.

[46] "Crushing" incidents are events in which it was clear that the product(s) fell on the victim and the victim remained under the product(s).
[47] "Positional Asphyxia" is a form of asphyxia that occurs when the body position prevents adequate oxygen supply to the lungs, such as an upper airway obstruction or a limitation in chest wall expansion.
[48] "Hit/Struck" injuries are events in which it was clear the product(s) fell on the victim but did not land and remain on the victim.
[49] Some of the miscellaneous injuries include: lacerations from broken glass tables, health complications resulting from a tip over (heart attack or stroke, or broken bones from falls), burn injuries from tipped ovens, deaths caused by items that were in/on the tipped over furniture, and competing risks of more than one of the other categories equally contributing to the death.

The head was the area of the body impacted most frequently in tip-over fatality incidents with 338 deaths caused by injuries to the head-only (58 percent), and 39 fatalities to the head and torso (7 percent). This is followed by the torso-only, with 140 deaths (24 percent). Damage to the head was the predominant injury leading to death for children, compared to adults and seniors, who had more torso injuries leading to death.

Of the 358 television-related tip-over deaths of all ages, including with and without furniture also falling, 300 (84 percent) were due to only head injuries. Figure 9 presents frequencies of fatalities by victim age group and body area injured.

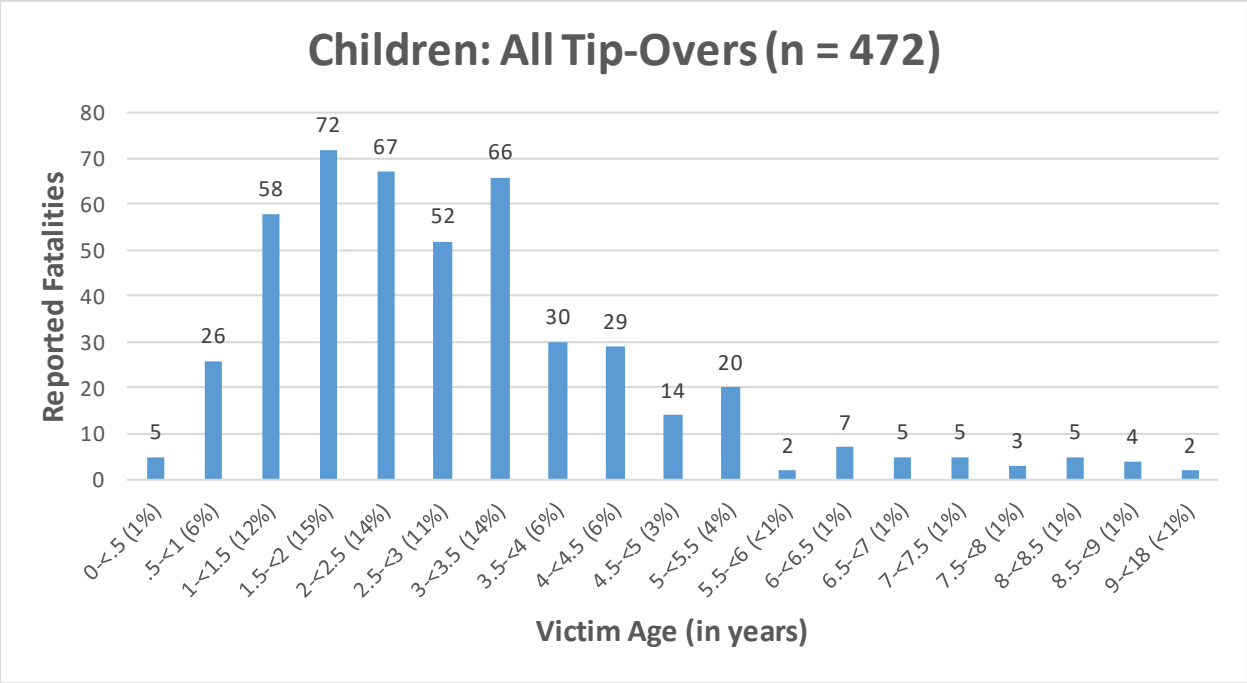
Figure 9
Product Instability or Tip-Over-Related Fatalities Reported to CPSC by Body Area Injured 2000–2020



Source: CPSC databases, including NEISS and CPSRMS.

Frequencies and percentages by victim age category for the 472 fatalities involving children are presented in Figure 10. While most decedents were between 1 month and 8 years of age, one 14-year-old decedent died of complications arising from a tip-over incident that happened when the victim was 2-years old, and one 9-year-old decedent died of complications from a tip-over incident that happened when the victim was 1-year-old. Of the 472 fatalities involving children, about two-thirds (315 deaths; 67 percent) were children at least 1 year of age and less than 3½ years of age. The age used is the age at the time of death,[50] which may differ somewhat from the age at the time of the incident.

Figure 10
Product Instability or Tip-Over-Related Child Fatalities Reported to CPSC by Victim Age at Time of Death 2000–2020

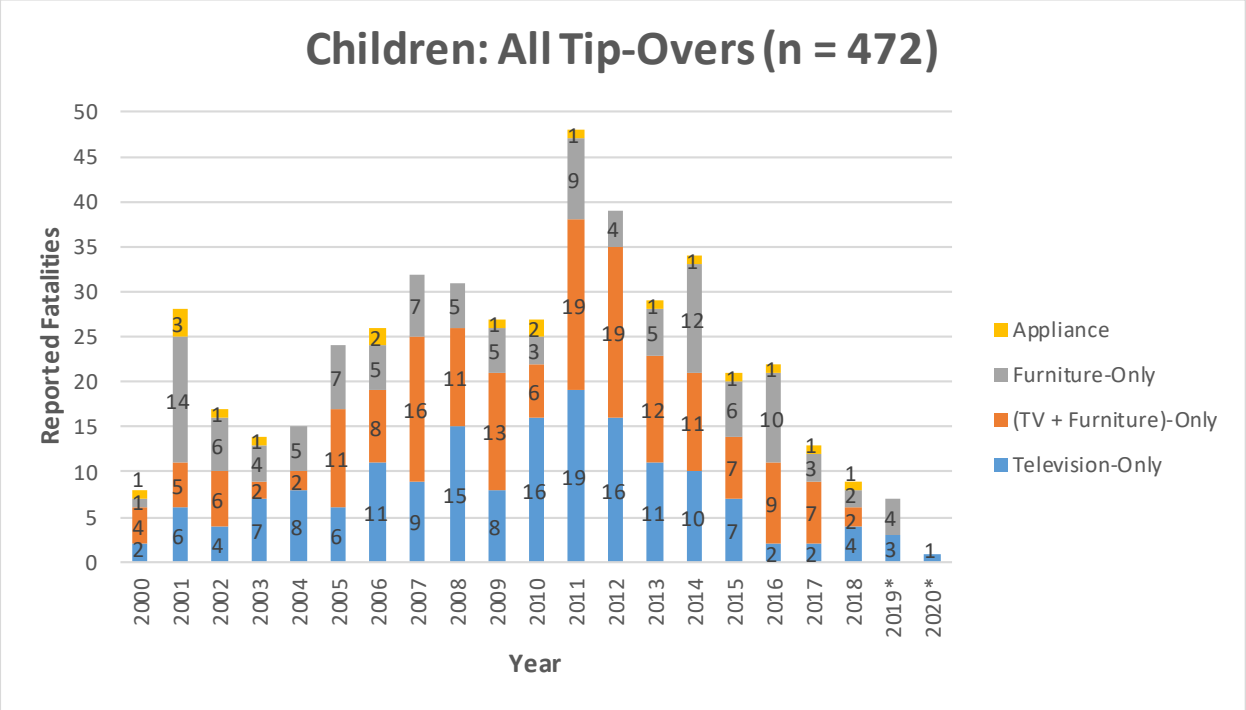


Source: CPSC databases, including NEISS and CPSRMS.

[50] In most cases, the age at the time of death is the same as the age at the time of incident. In a few cases, the ages differed. In some cases, the age at the time of incident or time of death was not reported.

Shown in Figure 11 are the 472 tip-over fatalities involving children divided into tip-over item(s) categories for years 2000 through 2020. From 2013 through 2017, there have been between 10 and 23 furniture-related tip-over fatalities to children each year, of which there have been between 3 and 12 furniture-only tip-over deaths to children in each of those years. Notice that there has been at least 1 child tip-over death involving an appliance reported to CPSC in each year from 2009 through 2018, except the year 2012.

Figure 11
Product Instability or Tip-Over-Related Child Fatalities Reported to CPSC by Product Category 2000–2020



Source: CPSC databases, including NEISS and CPSRMS. Asterisks (*) indicate ongoing reporting.

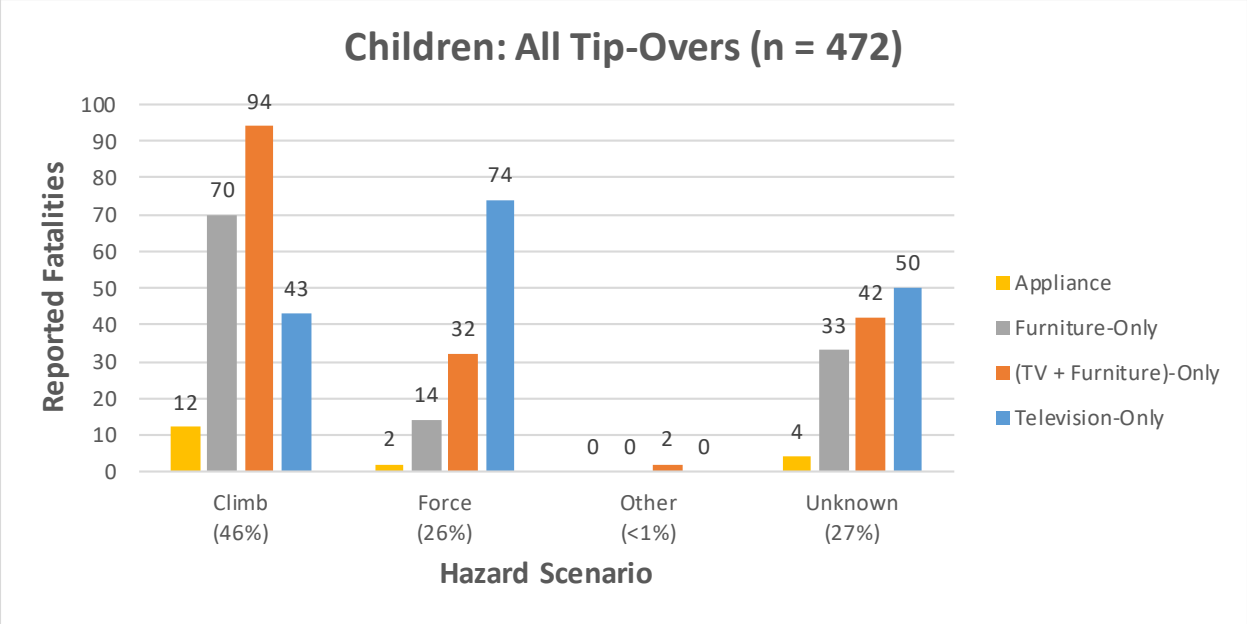
For children, the hazard scenario of how the child or other children were interacting with the tip-over product immediately before the tip-over incident were classified, where possible.[51] The scenarios for the 109 deaths involving adults and seniors did not have enough details, in most cases, to be classified. Accordingly, Figure 12 presents frequencies of deaths for children.

Of the 472 deaths involving children, 129 (27 percent) had unknown hazard scenarios, which commonly happened when the child was alone in a room when the incident took place, leaving no eyewitness to observe the tip-over incident. In many of the unknown incident scenarios, the victim could have been climbing on or applying force to the television, furniture, or appliance that tipped over.

[51] Scenario categories reflect the tip-over scenarios as precisely as possible with the available information.

Among the 117 known scenarios involving children and only televisions, in 37 percent (43 out of 117 fatalities) of deaths the victim or another child was climbing on the television, furniture, or appliance, and in 63 percent (74 out of 117 fatalities) of deaths the victim or another child was applying force in some manner other than climbing, such as hitting, pulling, or kicking the tipped over product, or adjusting controls on a television or electronic device connected to the television. Among the 212 known child furniture-related scenarios (furniture-only + television and furniture), in 77 percent (164 out of 212 fatalities) of deaths the victim or another child was climbing on the television or furniture, and in 22 percent (46 out of 212 fatalities) of deaths the victim or another child was applying force in some manner other than climbing. The 2 Other known scenarios involved furniture with a television resting on top, and the furniture spontaneously fell with no force exerted on the furniture or television prior to the tip-over occurrence. Figure 12 presents the frequencies of child fatalities by hazard scenario.

Figure 12
Product Instability or Tip-Over-Related Child Fatalities Reported to CPSC by Scenario 2000–2020



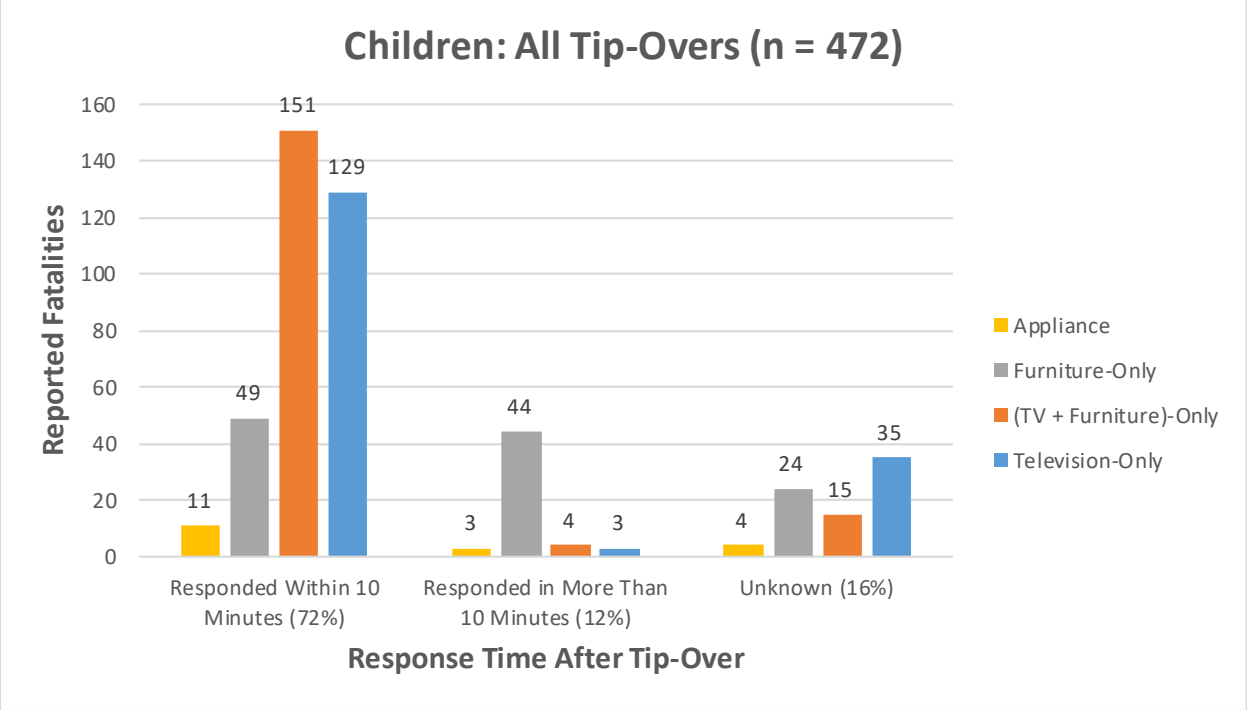
Source: CPSC databases, including NEISS and CPSRMS.

For children's deaths, the response time from when a tip-over incident occurred to the time that a caregiver found the child, began administering aid, and alerted emergency personnel were gleaned from the reports and classified, where possible. In the incidents where a caregiver *responded within 10 minutes*, a caregiver found the victim and the tipped-over television, furniture, or appliance within 10 minutes of the tip over occurring. Some examples include: a caregiver witnessed or was in the room when the incident happened, a sibling or other child witnessed the tip over and immediately alerted a caregiver, a caregiver heard the tip-over incident and immediately investigated where the loud 'bang' was coming from and found the victim, or a caregiver left the child alone for 10 minutes or less before finding the tip-over incident. For incidents with a *delayed response of more than 10 minutes*, the child was left unsupervised for at least 10 minutes before being found along with the tipped over television, furniture, or appliance. Among these incidents, there was no indication that the tip-over incident

was heard, or a crash may have been heard but the loud 'bang' was not investigated immediately. In some cases, the victim was left unsupervised for many hours, such as overnight, before being found. For incidents with an *unknown* response time, incident scenarios were described by mostly vague details. It is possible that incidents in the unknown category may have been responded to immediately or after some lapse of time after a tip over occurred—the information was not available from the reports.

Figure 13 presents the frequencies of child fatalities by response time after a tip over occurred. Among the known response times involving television-related child fatalities (including only a television, or a television and furniture), a caregiver responded within 10 minutes in 98 percent (280 out of 287 fatalities) of the fatalities, as compared to 53 percent (49 out of 93 fatalities) involving furniture-only tip overs. There was an unknown response time after a tip over in 15 percent (50 out of 337 fatalities) of television-related fatalities and 21 percent (24 out of 117 fatalities) of furniture-only deaths.

Figure 13
Product Instability or Tip-Over-Related Child Fatalities Reported to CPSC by Response Time After Tip-Over 2000–2020[52]

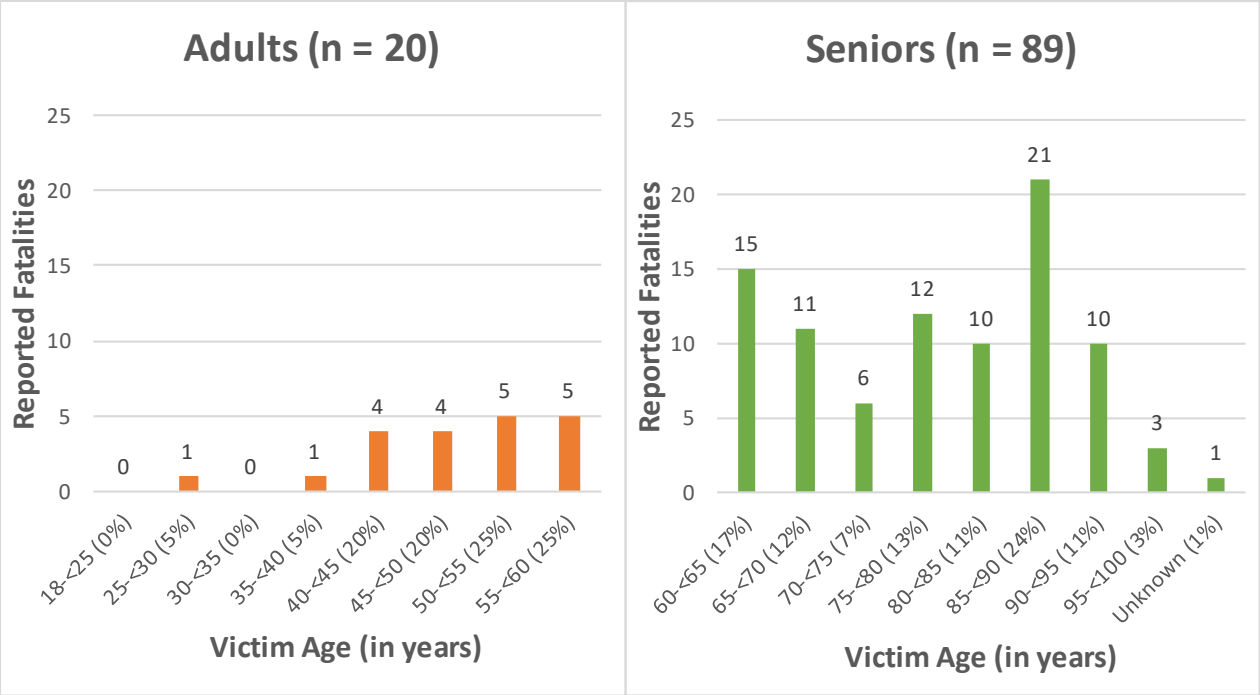


Source: CPSC databases, including NEISS and CPSRMS.

[52] Precise time measurements are typically unavailable within the incident description (*i.e.*, "I left for a few minutes", or "He was gone for five to ten minutes"); data are categorized based on narrative response time estimates.

Figure 14 presents the distribution of the tip-over fatalities for adults (18 to 59 years of age) and seniors (60 years and older) by age ranges. Excluding the senior death to the victim with an unknown age, among the 108 adult and senior tip-over deaths to people with a known age, 34 fatalities (31 percent) were to seniors ages 85 years or older. Of the adult fatalities, 18 out of the 20 tip-over deaths occurred to adults ages 42 to 59 years old. Not shown in Figure 14, there were either 1 or 2 adult fatalities in each year between 2010 and 2018, except for 2013 and 2015 where there were no adult deaths.

Figure 14
Product Instability or Tip-Over-Related Adult and Senior Fatalities Reported to CPSC by Victim Age at Time of Death 2000–2020[53]

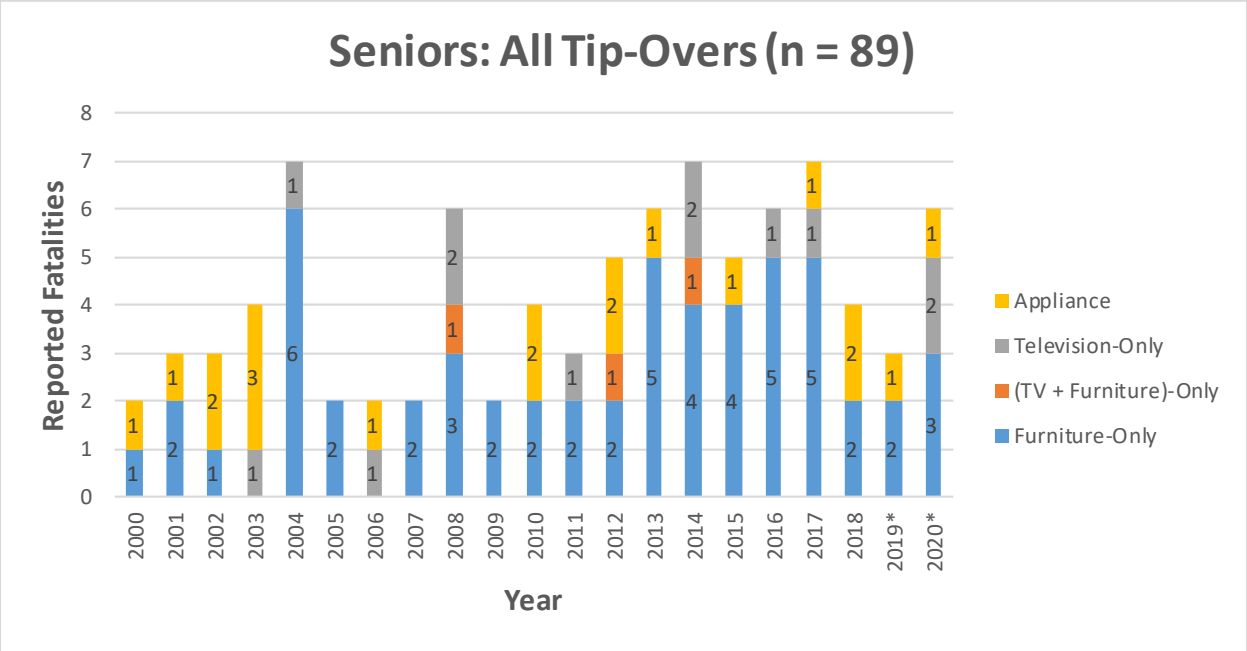


Source: CPSC databases, including NEISS and CPSRMS.

[53] One decedent, described as an "elderly" woman, has been classified as a senior of unknown age.

Figure 15 presents the 89 senior tip-over fatalities by tip-over item(s) for years 2000 through 2020. There were between 2 and 7 senior fatalities in each of these 21 years. In each of the most recent 7 years of complete reporting, from 2012 to 2018, there were between 4 and 7 senior deaths reported, mostly due to furniture-only fatalities.

Figure 15
Product Instability or Tip-Over-Related Senior Fatalities Reported to CPSC by Product Category 2000–2020



Source: CPSC databases, including NEISS and CPSRMS. Asterisks (*) indicate ongoing reporting.

Appendix A

Methodology for Selecting Product Instability or Tip-Over Injuries and Fatalities Associated with Televisions, Furniture, and Appliances

A multidisciplinary team of CPSC staff met to discuss terminology, the types of products of interest, and types of product-associated instability or tip-over incidents that are to be considered in-scope. For this report, the focus is on heavy objects that tip over and fall on an individual usually due to some type of interaction, such as climbing or exerting a force, on the object while it is in one of its positions of normal use. This interaction with the product results in the center of gravity of the product changing. Staff considered incidents that involved the furniture item tipping over, as well as incidents of instability with indications of impending tip over. Tip-over incidents are a subset of product instability incidents and involve furniture items falling over. Product instability incidents are a broader category that includes tip-over incidents but may also include incidents where furniture items did not fully tip over. Staff considered instability incidents relevant because product instability can lead to a tip over, and the same factors, such as product design, can contribute to instability and tip overs.

Staff determined that televisions, furniture, and appliances listed in Appendix B have the greatest risk of tipping over and potentially causing serious or fatal injuries. In examining the types of products to include, staff considered the product's potential to fall, and the product's purpose, size, location, and weight. The additional criterion of the potential interaction of the individual with the product was also important. Generally, the focus is on furniture that: is large or heavy and has the potential to cause serious injury or death; has a normal resting location and is rarely moved from that normal resting location during day-to-day activity and is not usually meant to be interacted with using excessive force. Products intended to be sat on or laid upon, such as chairs, couches, and beds, were excluded, due to the emphasis on products that are not intended to be frequently moved or interacted with using excessive force.

A television or an appliance falling in combination with the furniture (that it is resting in or on) falling is counted only in the furniture category, when incidents are divided into television, furniture, or appliance categories in this annual report. Generally, if furniture falls while either a television or an appliance is resting in or on top of the furniture, then the television or appliance is also going to fall. Using this logic, it makes sense to categorize these incidents by putting them all into the furniture category, even though the injury or death scenario often is caused by a person, usually a child, being drawn to interact with or interacting with a television or appliance that is sitting atop or in free-standing furniture. In many instances, the television or appliance that falls along with furniture is likely the primary cause of more severe injuries or fatalities, rather than the furniture that fell as well. When the product falls on an individual, the injuries typically involve crushing or compression.

The potential product codes were determined from furniture products associated with televisions, furniture, and appliances that meet the criteria described above and in Appendix B. Table 11 identifies the product codes used to extract the instability or tip-over incidents for televisions, furniture, and appliances.

Table 11
Potential Instability or Tip-Over Television, Furniture, and Appliance Product Codes [54]

Product Category	NEISS Product Code	Description
Television	557	Computers (equipment and electronic games)
Television	572	Televisions
Furniture	519	Television tables or stands
Furniture	604	Desks, chests, bureaus, or buffets
Furniture	693	Footlockers
Furniture	709	Safes
Furniture	1260	Billiards or pool (activity, apparel, or equipment)
Furniture	1269	Table Tennis (activity, apparel, or equipment)
Furniture	1684	Carts, other, or not specified
Furniture	1726	Lockers
Furniture	4013	Other furniture
Furniture	4014	Furniture, not specified
Furniture	4056	Cabinets, racks, room dividers, and shelves
Furniture	4057	Tables (excl. baby changing tables, billiard tables, or pool tables)
Furniture	4065	Clocks, electric or battery operated
Furniture	4067	Clocks, not electric or battery operated or not specified
Appliance	101	Washing machines without wringers or other dryers
Appliance	102	Wringer washing machines
Appliance	106	Electric clothes dryers without washers
Appliance	107	Gas clothes dryers without washers
Appliance	126	Washing machines, not specified
Appliance	127	Clothes dryers, not specified
Appliance	135	Washer-Dryer combinations (within one frame)
Appliance	140	Washing machines, other or not specified
Appliance	259	Electric ranges (with ovens)
Appliance	260	Gas ranges (with ovens)
Appliance	263	Freezers (separate from refrigerators)
Appliance	264	Microwave ovens
Appliance	266	Ovens, not specified
Appliance	267	Other ranges (with ovens)
Appliance	273	Ranges, not specified
Appliance	276	Refrigerators
Appliance	278	Electric ranges or ovens (excl. counter-top ovens)
Appliance	279	Gas ranges or ovens
Appliance	280	Other ranges or ovens
Appliance	281	Ranges or ovens, not specified
Appliance	482	Appliances, other and not specified
Appliance	1821	Clotheslines or clothes drying racks (excluding poles)
Appliance	3233	Other grills or stoves

[54] The source for product codes and descriptions is the NEISS Coding Manual (updated January 2021).

After staff established the set of product codes, the next step was to determine the types of scenarios to look for in the incident narratives. Narrative key word searches were not used when extracting a potential set of data, because the narrative field descriptions have many possible word choices, misspellings, and sentence structures. Additionally, narratives from NEISS, medical examiner reports, and death certificates are often very terse and provide only basic information. Consequently, the NEISS product codes listed in Table 11 and the incident date range were the criteria used to extract the data sets; then, the narratives were examined, along with other variables such as location of the tip-over incident, using very detailed heuristics, to determine if an incident met the instability or tip-over criteria explained in Appendix B. In Appendix B, additional details describe the products and conventions that are used to determine in-scope cases, and some examples are also given to explain what products and which instability or tip-over scenarios are considered in-scope.

NEISS data are based on a nationally representative probability sample consisting of patient visits to about 100 hospitals in the United States and its territories.[55] The total number of hospital emergency department visits nationwide in the United States are estimated from the probability sample, as well as derivation of estimates for age groups, products, injury types, disposition, and body parts for particular years, or combinations of these criteria, among others. CPSC reports publish NEISS estimates provided the sample count is greater than 20, the national estimate is greater than 1,200, and the coefficient of variation (CV) is not greater than 0.33. However, if a 3-year total estimate meets the above criteria, even if the annual average estimate fails, then those estimates are presented in the NEISS section of this report. This means an estimated 3-year annual average of less than 400 injuries is not presented in this report. Because the hospital reports in NEISS are unique, there are no duplicates.

The most recent injury estimates were based on 2020 NEISS data; this was merged with data from last year's report, which covered the years 2011 through 2019, resulting in the current report covering the 2011 through 2020 reporting period. After careful consideration of scope criteria (described in Appendix B), some incidents in the previous annual report were re-evaluated to ensure that the criteria for inclusion were applied consistently. The changes that followed are listed below:

- One incident that occurred in the year 2012 was omitted.
- One incident was moved from the "chest/bureau/dresser and television" category to the "table and television" category.

Some product instability or tip-over-related injury victims survive the initial impact but succumb to their injuries while being treated in an emergency department. In the NEISS data from 2011 through 2020, there are 12 such injuries which resulted in death after the victim was sent to and treated in the emergency department. These 12 deaths have been included in the calculation of the national injury estimates for 2011 through 2020, and in the fatality analysis presented in this report. Of these 12 deaths, 2 occurred between 2018 and 2020, and are part of 3-year annual averages throughout the injury section. There are another 9 NEISS deaths that occurred between 2000 and 2010, which appear in the fatality section.

[55] NEISS data can be accessed from the CPSC webpage under the "Access NEISS" link at: https://www.cpsc.gov/Research--Statistics/NEISS-Injury-Data.

Fatality data were extracted on July 1, 2021, from the NEISS and the CPSRMS (Consumer Product Safety Risk Management System) for instability or tip-over fatalities involving the television, furniture, and appliance product codes listed in Table 11, covering deaths occurring in the years 2000 through 2020. Data collected in 2021 were merged with the data used in the last annual report (extracted July 1, 2020). It should be noted that, for a given year, incidents are received on an ongoing basis, and there is commonly a lag of about 2 years between when many fatalities occur and when they are first reported to CPSC. For this report, fatality counts should be considered incomplete for years 2019 and 2020. Additionally, it is not uncommon that multiple reports about a single fatality are received in the CPSRMS, therefore source documents are carefully checked to eliminate duplicate incident reports. As fatal incidents are notable events in the community where they occur, often there are multiple news reports, a medical examiner's report, a death certificate, an in-depth investigation initiated by CPSC staff, and less frequently, a NEISS report. Reports come from various types of sources, including newspaper clippings, consumer complaints, and reports from other government agencies, such as medical examiners/coroners. Accordingly, CPSRMS data is anecdotal and represents at least a minimum for all fatalities that have occurred nationwide. Once the fatality data set is established, the incidents are examined to code additional scenario characteristics, such as: victim age, furniture type, incident location, injury type, and response time. Public locations include nursing homes and assisted living facilities in both the NEISS injury estimates and in the fatality section, which generally only affects the senior age group.

For this report, CPSC has received new reports of tip-over fatalities that occurred between 2018 and 2019, and has received additional information on some of the tip-over fatalities that appeared in past reports. This has necessitated re-evaluation of previous fatality categorizations for better consistency of the data. Following the re-evaluation, no changes were made to the fatality statistics presented in the 2020 report.

Fatalities in this report are reported as counts from CPSC data, and injury estimates are rounded to the nearest hundred. Injury estimate category percentages were based on the category-weighted estimates before rounding; fatality category percentages were based on the category counts observed.

Race and Ethnicity Variables and Specifications

Among the NEISS data are three variables: "Race," "RaceOth," and "Hispanic," which record information about the race or ethnicity of ED-treated patients. This information is provided by the patient. Every NEISS patient has been coded for Race, and potentially coded for RaceOth for elaboration purposes, since at least the year 2006. The Hispanic variable has been recorded for all NEISS patients seen since July 1, 2018, so as of the writing of this report, the most recent complete year of reporting for this variable is 2019. Therefore, analysis concerning race/ethnicity for the annual average estimated number of ED-treated tip-over injuries is based on the NEISS data from the years 2019 and 2020. A combination of the variables Race, RaceOth, and Hispanic is needed to estimate the proportion of tip-over injuries of Hispanic heritage among all tip-over injuries; this proportion may be compared to proportions of other races/ethnicities regarding tip-over injury estimates. Within the January 2021 NEISS coding manual are descriptions of these race/ethnicity variables.

From January 2021 NEISS Coding Manual[56]

Hispanic?

(1 character)

If the ED Record …	Then Code
indicates the patient **is** a person of Hispanic, Latino/Latina, or Spanish origin.	1-Yes
indicates the patient **is not** a person of Hispanic, Latino/Latina, or Spanish origin.	2-No
does not indicate whether the patient is of Hispanic, Latino/Latina, or Spanish origin.	0-Unknown

Race

(1 character)

Definition	Code Race
A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.	1-White
A person having origins in any of the black racial groups of Africa.	2-Black/African American
Use this code when: (1) the ED record indicates more than one race (*e.g.*, multiracial, biracial), or (2) the race is stated in the ED record and none of the above applies.	3-Other (then enter race specified by ED record in the **Race Other** field)
A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent.	4-Asian
A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.	5-American Indian/Alaska Native
A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.	6-Native Hawaiian/Pacific Islander
Use this code when there is no information in the ED record.	0-Not stated

[56] The January 2021 NEISS coding manual can be found at: https://www.cpsc.gov/s3fs-public/January-2021-NT-CPSC-only-NEISS-Coding-Manual.pdf?xa_nMM1kB4SGpuSMOwf0NHkkkIqNcn8F.

Table 12 presents how NEISS patients were categorized by race/ethnicity in this report based on the three race/ethnicity variables: Hispanic, RaceOth, and Race.

Table 12
NEISS Patient Race/Ethnicity Categorization

NEISS Coded Variables			Coded in this Report
Hispanic	**RaceOth**[57]	**Race**[58]	**Race/Ethnicity Category**
1 - Yes	Indicates Hispanic Heritage	1 - White	Hispanic (Any Race)
		2 - Black/African American	Hispanic (Any Race)
		3, 4, 5, 6 - Other Races	Hispanic (Any Race)
		0 - Unknown	Hispanic (Any Race)
	Does not Indicate Hispanic Heritage	1 - White	Hispanic (Any Race)
		2 - Black/African American	Hispanic (Any Race)
		3, 4, 5, 6 - Other Races	Hispanic (Any Race)
		0 - Unknown	Hispanic (Any Race)
2 - No	Indicates Hispanic Heritage	1 - White	Hispanic (Any Race)
		2 - Black/African American	Hispanic (Any Race)
		3, 4, 5, 6 - Other Races	Hispanic (Any Race)
		0 - Unknown	Hispanic (Any Race)
	Does not Indicate Hispanic Heritage	1 - White	White, Non-Hispanic
		2 - Black/African American	Black/African American, Non-Hispanic
		3 - Other (Unspecified Race)[59]	Unknown (not included in Table 9)
		3, 4, 5, 6 - Other Specified Races	Other
		0 - Unknown	Unknown (not included in Table 9)
3 - Unknown	Indicates Hispanic Heritage	1 - White	Hispanic (Any Race)
		2 - Black/African American	Hispanic (Any Race)
		3, 4, 5, 6 - Other Races	Hispanic (Any Race)
		0 - Unknown	Hispanic (Any Race)
	Does not Indicate Hispanic Heritage	1 - White	White, Non-Hispanic
		2 - Black/African American	Black/African American, Non-Hispanic
		3 - Other (Unspecified Race)	Unknown (not included in Table 9)
		3, 4, 5, 6 - Other Specified Races	Other
		0 - Unknown	Unknown (not included in Table 9)

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

[57] Some examples of responses recorded in the variable "RaceOth" that indicate Hispanic heritage are: "Hispanic," "Hisp," "Hist," "H," "Latino," "Mexican," and "Spanish."
[58] Race variable coding, January 2021 NEISS Coding Manual (above).
[59] In cases in which a patient has Race coded as 3 (Other), Hispanic coded as either 2 (No) or 0 (Unknown), and: (1) RaceOth is coded as a variation of: 'other', 'not specified', or 'unknown', then the patient is categorized in the Unknown category in this report and is not included in analysis in Table 9; and (2) if any race/ethnicity is specified in the RaceOth variable, including "Biracial" and "Multiracial", then the patient is categorized in the Other category.

Patients with no known information about race/ethnicity from the three race/ethnicity variables are not reported in Table 9, so that proportions of the estimated number of tip-over injuries of ***known*** race/ethnicity patients can be compared to the race/ethnicity proportions seen in the U.S. population.

Appendix B

Conventions for Determining In-Scope Incidents

NEISS incidents often have a terse narrative; accordingly, staff used a more stringent set of rules when examining this NEISS set of potential instability or tip-over incidents compared to fatalities extracted from the other CPSC epidemiological database (CPSRMS). The included instability or tip-over incidents generally use such words to describe the incident: fall/fell on/over, tilted/tipped forward, tilted/tipped over, began to tip, tipped, and unstable/wobbly with additional indications of an impending fall. Excluded are incidents described using the following words: break, collapse, fell apart, flimsy, shaky, unstable, or wobbly with no additional indications of tipping or falling. This appendix lists the types of products and incident scenarios included in the NEISS and fatality instability or tip-over incidents associated with televisions, furniture, and appliances. To maintain the consistency of data, some reclassifications compared with past reports may not be apparent, due to rounding.

Unstable items <u>included</u> in the counts:

1. Furniture:
    a. Armoire
    b. Bookcase
    c. Bureau
    d. Cabinet (Exclude: kitchen and medicine)
    e. Cart (Include only: microwave and TV)
    f. Chest (Exclude: jewelry and falling off shelf)
    g. Cupboard
    h. Desk (Exclude: at schools)
    i. Display case (Include only: in-home locations)
    j. Dresser
    k. Clocks, long case (Exclude: all other clocks)
    l. Game Tables (Include only: "game table", ping pong, and pool)
    m. Locker (Include only: in-home locations)
    n. Pedestal
    o. Plant stand
    p. Rack (Include only: coat rack)
    q. Room divider
    r. Safe (Exclude: falling off shelf)
    s. Safety strap (Include: tethering in-scope items to a wall) (Exclude: mounting items on a wall)
    t. Shelf (Exclude: in closets and in stores)
    u. Stand (Include only: microwave, night, and TV)

v. Table (Include: picnic and folding tables)
(Exclude: TV tray tables)
w. Vanity
x. Wall unit
y. Wardrobe

2. Appliances:
   a. Dryer
   b. Freezer
   c. Microwave
   d. Refrigerator (Include: mini fridge)
   e. Stove/Oven
   f. Washing machine

Note: If the type of furniture or appliance is not specified in the narrative, then the incident is not included. Examples include the item that caused the injury being described by only the terms "furniture" or "appliance" in the narrative.

3. Electronics:
   a. Computer screen/monitor (Exclude: "computer" and laptop)
   b. Television

Note: All other electronics are not included in the count.

4. Locations:
   a. Store (Exclude: cart, display case, rack, and shelf)
   b. School (Exclude: desk and locker)
   c. Other public locations (Exclude: locker)

5. Sample scenarios that involved an injury:
   a. "tried to catch"
      Ex: The patient tried to catch a falling TV and injured foot.
      Ex: While at school the patient tried to stop a room divider from falling over and injured head.
   b. "found under" (Exclude: desk and table)
      Ex: Mom heard a loud crash, and she found her son lying under a dresser.
   c. "pulled on self"
      Ex: The infant pulled a TV down onto herself.
      Ex: Grandma started to fall when she pulled a dresser onto herself to try to keep her balance.
   d. "drop" or "move"
      Ex: If a child 9 years old or younger "drops" or attempts to "move" an in-scope television, furniture, or appliance item by her/himself and the item tips over, causing the child to die or to seek hospital treatment, then the incident is counted

as a tip-over incident. Any incident involving a person 10 years old or older who "drops" or attempts to "move" an in-scope item is not considered a tip-over incident for this report.

Note: These incident types are counted when a narrative implies an instability or tip-over incident occurred and is the reason for the hospital visit.

Unstable items not included in the counts:

1. Falls of wall-mounted televisions/appliances are excluded. Furniture that is tethered or secured to the wall for the purpose of preventing a tip-over incident is included.

2. Ambiguity in the narrative:
   a. What is the item that fell?
      Ex: The patient was sitting next to an unstable table while leaning back in her chair when it fell over and landed on her.
      (It is unclear if 'it' refers to the table or the chair.)
   b. Which event caused the patient to seek treatment at the hospital?
      Ex: The patient has a skull fracture. Either the patient bumped his head on a cabinet today, or yesterday a TV fell off a dresser onto his head.
      (It is unclear for which incident the patient is being treated at the hospital.)

3. Action verbs alone that do not describe instability, such as assemble, brake, collapse, drop, fix, hit, struck, and move.

4. Components of furniture such as a door, drawer, handle, knob, panel, table leaf, and tabletop.

5. Furniture intended to be sat upon or laid on, such as a bed, bench, bleacher, chair, couch, futon, glider, love seat, recliner, and seat.

6. Appliance (examples): air conditioner, blender, boiler, broiler, crock pot, fan, food processor, fryer, heater (electric or gas), rice cooker, stove hood/fan, toaster, toaster oven, trash compactor, and vacuum.

7. Electronics (examples): cable box, DVD/VCR player, video game system, radio, and speaker.

8. Storage furniture (examples): barrel, box, cage, cans, case, container, crate, hutch, tank, and trunk.

9. Other household items(examples): all baby furniture, all power tools, aquarium, book, candle, candleholder, figurine, fireplace, mantel, mirror, newspaper box, pan, podium, pot, railing, skillet, slot machine, statue, toolbox, TV tray table, vase, and yard compactor.