United States
Consumer Product Safety Commission

Senior Injuries and Deaths Associated with Consumer Products: 2024 Report

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Executive Summary

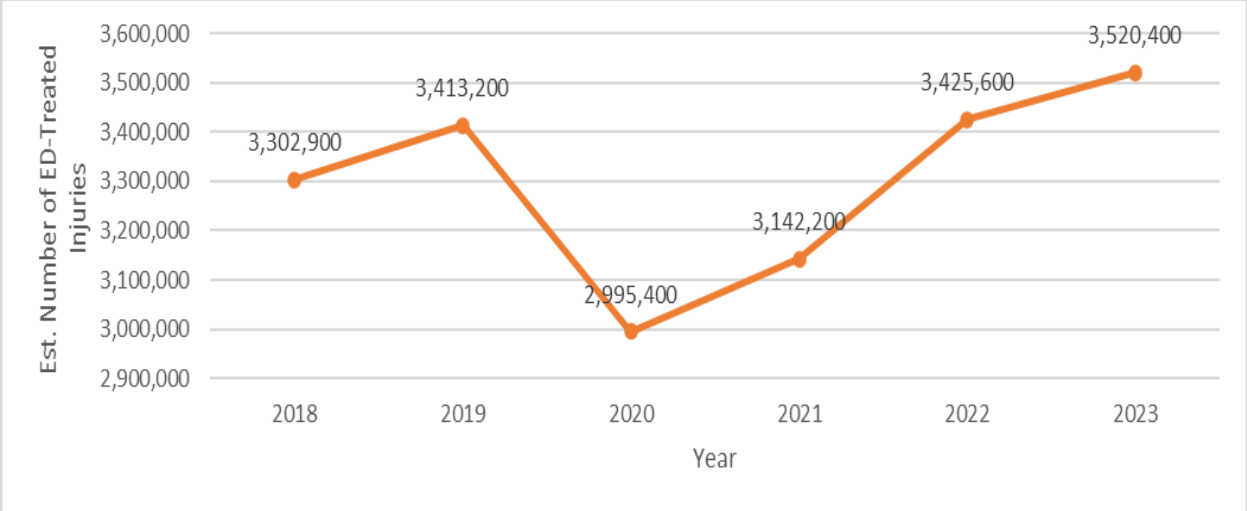
Overview

This report focuses on consumer product-associated injuries and fatalities to seniors ages 65 years and older in the U.S. Injuries represent emergency department (ED) visits as estimated from the National Electronic Injury Surveillance System (NEISS) national probability sample.[1] Fatalities represent estimated national average deaths based on the Center for Disease Control and Prevention (CDC) National Center for Health Statistics (NCHS) mortality database. For both injuries to seniors and senior fatalities, there are increasing linear trends over time, as seen in Figure 1 and Figure 2.

Injuries

Figure 1 presents the estimated number of ED-treated injuries to seniors ages 65 years and older that were associated with consumer products from 2018 through 2023, revealing an increase from 3,302,900 injuries in 2018 to 3,520,400 in 2023 and a notable dip in the COVID-19 years of 2020 and 2021. Despite this brief dip, which may be associated with unwillingness or inability to obtain ED treatment, the increasing linear trend for the six-year period is statistically significant at a 95-percent confidence level. Likewise, the injury estimates for the two most recent years, 2022 and 2023, are each statistically significantly higher than either 2020 or 2021 at a 95-percent confidence level.

Figure 1: Estimated Number of ED-Treated Injuries Involving All Consumer Products for Ages 65 Years and Older by Year, 2018-2023



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

For a more detailed analysis of these injuries, cases were confined to the two most recent years, 2022 and 2023, evaluated to determine whether they were under the jurisdiction of the CPSC (thereby creating a subset of all NEISS cases in Figure 1), and grouped into tiers, categories, and subcategories by hazard or product. For reference, ED-treated injuries to seniors were compared to ED-treated injuries to adults ages 25 to 64 years old. Highlights are

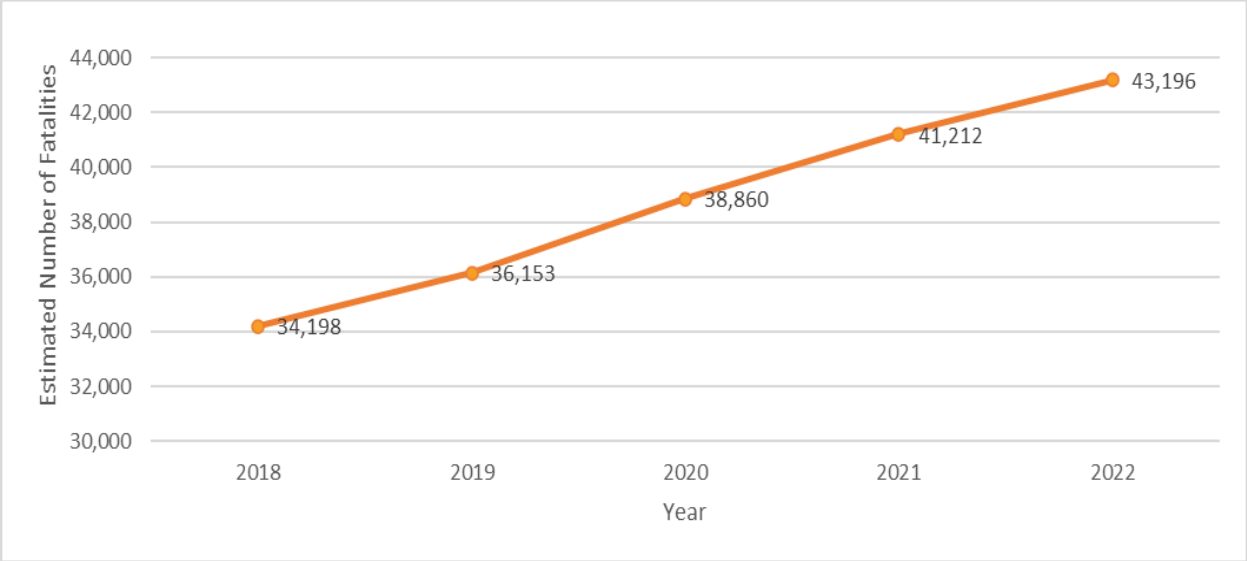
[1] A full list of product codes can be found in the NEISS Coding Manual (January 2024) found at January 2024 NEISS Coding Manual (cpsc.gov).

found in the Executive Summary below, but a key finding is that falls (not involving a riding product such as a bicycle) constitute 77 percent of all senior injuries (estimated annual averages of 2,453,500 fall injuries out of 3,177,300 total injuries). Seniors are 2.1 times as likely to be ED-treated as adults ages 25 to 64 years old for all injuries, and 6.5 times as likely to be ED-treated for serious injuries (i.e., those treated and transferred, hospitalized, or who die during treatment). For falls (not involving a riding product), seniors are 4.3 times as likely to be ED-treated as adults, and 9.9 times as likely for serious injuries. For non-fall injuries, seniors are slightly (0.8 times) less likely than adults to be ED-treated, but 1.8 times more likely to be treated for serious injuries.

Fatalities

Figure 2 presents the estimated number of fatalities to seniors ages 65 years and older that were associated with consumer products under the jurisdiction of the CPSC, revealing a year-over-year increase from 34,198 fatalities in 2018 to 43,196 in 2022. Notably, unlike the injury estimates, there is no pandemic-related drop in the years 2020 or 2021. This supports the hypothesis that the dip in ED-treated injuries is related to not seeking or being able to obtain ED treatment, rather than a decline in consumer product-related injuries to seniors during the COVID-19 pandemic.

Figure 2: Estimated Number of Annual Consumer Product-Related Fatalities for Ages 65 Years and Older, 2018-2022



Source: U.S. Center for Disease Control and Prevention (CDC) National Center for Health Statistics (NCHS) mortality data. Estimates are rounded to the nearest one fatality.

As with injuries, fatal cases for the most recent years available (2020-2022) were grouped into tiers and categories by product or hazard, and analyzed in further detail, in comparison to adults ages 25 to 64 years old. Highlights are detailed below, but one key finding mirrors a finding for injuries: of the estimated annual average 41,089 consumer product-related fatalities to seniors, 34,514 (84 percent) were due to falls. Whereas seniors died 10.4 times as frequently as adults ages 25 to 64 years old for all fatalities, for fall-related deaths they died 24.9 times as frequently as adults, and for non-fall deaths they died 2.6 times as frequently as adults.

Methodology

Categories are grouped under three primary (product/hazard) tiers:[2] Non-Mechanical hazards,[3] Riding Consumer Products,[4] and Non-Riding Product Mechanical hazards (which is the only tier to have subcategories based on product).[5] Categories and subcategories in the injury section are similar but not identical to categories in the fatality section due to different data sources. Injury categories were formed by determining which product/hazard was primarily responsible for the most severe injury in ED-treated incident scenarios. Fatality classification employs International Classification of Diseases Codes (ICD-10 codes)[6] to form fatality categories. Each injury and death case is placed in only one product/hazard category and subcategory.

The statistics presented in this report are not directly comparable to statistics released previously in CPSC reports concerning seniors due to refinement of the conventions for determining in-scope (NEISS) injuries and data sources used to determine fatality estimates. CPSC's 2022 report on consumer product-related injuries and deaths to seniors, for example, grouped product/hazard categories differently than in this report for injuries, and fatality counts were based on CPSC's Consumer Product Safety Risk Management System (CPSRMS) and the U.S. Fire Administration-maintained National Fire Incident Reporting System (NFIRS) database instead of CDC NCHS mortality data. In this report, the injury categorization methods allow for more detailed examination of injury hazards, and the CDC NCHS mortality data used allow for more accurate estimation of fatality counts.[7]

Appendix A presents the methodology for data extraction and selection criteria. Appendix B provides conventions for determining product or hazard categories and subcategories analyzed in this report. Appendix C shows the list of consumer product-related ICD-10 codes used in this report, along with brief descriptions of each code and the category which each code is placed. Appendix D shows descriptions and statistical highlights for injury and death categories and subcategories.

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[2] The term "product/hazard" is used to describe both the injury and fatality categorizations as cases are placed into categories based on either the product involved, the hazard scenario, or a combination of both. Product and hazard in combination make up all of the subcategories in the injury section. If a product/hazard did not easily fit into a product/hazard category it was placed into an Other/Unknown category for injuries and an Other/Unknown tier for fatalities.

[3] For injuries, the Non-Mechanical hazard tier categories include Fire-Related, Burns – Non-Fire Thermal, Burns – Scalding, Burns – Other/Electric Shock, Allergy/Dermatitis/Other Skin Issues, Anoxia/Aspiration/Submersion, Ingestion, and Poisoning. For fatalities, the Non-Mechanical hazard tier categories include Fire-Related, Burns - Contact with Hot Objects, Electric Shock, Drowning, Explosion, Poisoning, and Suffocation.

[4] For injuries, the Riding Consumer Products tier categories include Animal Riding (mostly horses), Bicycles and Accessories, Golf Carts, Micromobility, OHVs, and Other Riding Products. For fatalities, the Riding Consumer Products tier categories include Animal Riding, Bicycles, and Other Riding Products (except for micromobility products).

[5] For injuries, the Non-Riding Mechanical hazard tier categories include Cut/Pierce, Falls, Foreign Body, Overexertion, Struck Against/By, and Other/Unknown. No cases in this tier involve riding consumer products. For fatalities, the Non-Riding Product Mechanical hazard tier categories include Cut/Pierce, Entrapment, Falls, Foreign Body, Machinery, Overexertion, and Struck Against/By. Fatalities that do not fall under any of the categories above are grouped together in the Other/Unknown tier.

[6] The ICD-10 code is the variable within the NCHS mortality data which categorizes cases by product or hazard and is the variable used to categorize deaths in this report. See Appendix C for more details.

[7] The 2022 CPSC report can be found at: Consumer Product-Related Injuries and Deaths Among Adults 65 Years of Age and Older.

Highlights of the Report[8]

Analyzing the estimated annual average 3,177,300 ED-treated injuries (2022–2023) and the estimated annual average 41,089 fatalities (2020–2022) to seniors ages 65 years and older associated with consumer products in the U.S., staff noted the following:

Victims

- Estimated annual average number of ED-treated injuries (estimated number of injuries per 100,000 seniors of each age group in the U.S. population):
  - Seniors ages 65 to 74 years suffered 1,267,100 injuries (3,711.0 injuries per 100,000 people in this group), which is 39.9 percent of all senior injuries, whereas seniors ages 65 to 74 years are 58.2 percent of seniors in the U.S. population;
  - Seniors ages 75 to 84 years suffered 1,124,200 injuries (6,245.2 injuries per 100,000 people in this group), which is 35.4 percent of all senior injuries while this group is 30.7 percent of seniors in the U.S. population; and
  - Seniors ages 85 years and older suffered 785,900 injuries (11,967.6 injuries per 100,000 people in this group), which is 24.7 percent of all senior injuries versus. 11.2 percent of seniors in the U.S. population.
- Among the estimated annual average 2,453,500 ED-treated injuries involving falls that are associated with consumer products that are not riding products (estimated number of injuries per 100,000 seniors of each age group in the U.S. population):[9]
  - Seniors ages 65 to 74 years suffered 845,000 injuries (2,474.7 injuries per 100,000 people in this group), which is 34.4 percent of all senior fall injuries while seniors ages 65 to 74 years are 58.2 percent of seniors in the U.S. population;
  - Seniors ages 75 to 84 years suffered 896,900 injuries (4,982.5 injuries per 100,000 people in this group), which is 36.6 percent of all senior fall injuries versus 30.7 percent of seniors in the U.S. population; and
  - Seniors ages 85 years and older suffered 711,600 injuries (10,836.1 injuries per 100,000 people in this group), which is 29.0 percent of all senior fall injuries versus 11.2 percent of seniors in the U.S. population.
- Estimated annual average number of senior fatalities (estimated number of fatalities per 100,000 seniors of each age group in the U.S. population):
  - Seniors ages 65 to 74 years suffered 8,155 fatalities (24.6 fatalities per 100,000 people in this group), which is 19.8 percent of all senior fatalities versus. 59.0 percent of seniors in the U.S. population;
  - Seniors ages 75 to 84 years suffered 12,987 fatalities (78.2 fatalities per 100,000 people in this group), which is 31.6 percent of all senior fatalities as compared to 29.5 percent of seniors in the U.S. population who are in this age group; and
  - Seniors ages 85 years and older suffered 19,948 fatalities (307.9 fatalities per 100,000 people in this group), which is 48.5 percent of all senior fatalities versus 11.5 percent of seniors in the U.S. population.

[8] Injury estimates are rounded to the nearest hundred. Percentages based on NEISS estimates are based on the non-rounded estimates. Percentages may not sum to 100, due to rounding. Death estimates are rounded to the nearest one death. Percentages based on NCHS estimates are based on non-rounded estimates. Percentages may not sum to 100, due to rounding.

[9] Fall injuries not involving a riding consumer product account for 77 percent of all senior injuries.

- Among the estimated annual average 34,514 senior fatalities involving falls (estimated number of fatalities per 100,000 seniors of each age group in the U.S. population):[10]
    - Seniors ages 65 to 74 years suffered 5,567 fatalities (16.8 fatalities per 100,000 people in this group), which is 16.1 percent of all senior fall-related fatalities while this group is 59.0 percent of seniors in the U.S. population;
    - Seniors ages 75 to 84 years suffered 10,926 fatalities (65.8 fatalities per 100,000 in this group), which is 31.7 percent of all senior fall-related fatalities versus. 29.5 percent of seniors in the U.S. population; and
    - Seniors ages 85 years and older suffered 18,021 fatalities (278.2 fatalities per 100,000 people in this group), which is 52.2 percent of all senior fall-related fatalities compared to 11.5 percent of seniors in the U.S. population.

Product/Hazards

- Estimated annual average number of ED-treated injuries to seniors ages 65 years and older:
    - Non-Mechanical hazards account for 43,600 injuries (1.4 percent of all senior injuries) (74.3 injuries per 100,000 seniors in the U.S. population);
    - Riding consumer products account for 90,200 injuries (2.8 percent of all senior injuries) (153.7 injuries per 100,000 seniors in the U.S. population); and
    - Non-Riding products with mechanical hazards account for 3,043,400 injuries (95.8 percent of all senior injuries) (5,183.4 injuries per 100,000 seniors in the U.S. population).
- Estimated annual average number of ED-treated injuries to seniors ages 65 years and older among the 3,043,400 injuries due to non-riding consumer products with mechanical hazards:
    - Cut/Pierce hazards account for 129,600 injuries (4.3 percent of all non-riding consumer products with mechanical hazards) (220.8 injuries per 100,000 seniors in the U.S. population);
    - Fall hazards account for 2,453,500 injuries (80.6 percent) (4,178.7 injuries per 100,000 seniors in the U.S. population);
    - Foreign Body hazards account for 10,800 injuries (0.4 percent) (18.4 injuries per 100,000 seniors in the U.S. population);
    - Overexertion hazards account for 257,600 injuries (8.5 percent) (438.7 injuries per 100,000 seniors in the U.S. population);
    - Struck Against/By hazards account for 180,300 injuries (5.9 percent) (307.2 injuries per 100,000 seniors in the U.S. population); and
    - Other or Unknown hazards account for the remaining 11,500 injuries (0.4 percent) (19.6 injuries per 100,000 seniors in the U.S. population).
- Estimated annual average number of fatalities to seniors ages 65 years and older:
    - Non-Mechanical hazards account for 2,869 fatalities (7.0 percent of all senior fatalities) (5.1 fatalities per 100,000 seniors in the U.S. population);
    - Riding consumer products account for 571 fatalities (1.4 percent of all senior fatalities) (1.0 fatalities per 100,000 seniors in the U.S. population);

[10] Fall fatalities account for 84 percent of all senior fatalities.

- Non-Riding products with mechanical hazards account for 34,894 fatalities (84.9 percent of all senior fatalities) (62.0 fatalities per 100,000 seniors in the U.S. population); and
- Other or Unknown hazards account for the remaining 2,755 fatalities (6.7 percent of all senior fatalities) (4.9 fatalities per 100,000 seniors in the U.S. population).

Sex

- Estimated annual average number of ED-treated injuries to seniors ages 65 years and older:
  - Senior females are 1.1 times as likely to be ED-treated as senior males;
  - Senior females account for 1,855,400 injuries (5,736.0 injuries per 100,000 senior females in the U.S. population), which make up 58.4 percent of all senior injuries versus females' 55.1 percent share of the senior population; and
  - Senior males account for 1,321,600 injuries (5,012.3 injuries per 100,000 senior males in the U.S. population), which make up 41.6 percent of all senior injuries versus males' 44.9 percent share of the senior population.
- Estimated annual average number of ED-treated injuries to seniors ages 65 years and older involving falls not associated with riding consumer products:
  - Senior females are 1.3 times as likely to be ED-treated for fall injuries as senior males;
  - Senior females account for 1,520,100 injuries (4,699.3 injuries per 100,000 senior females in the U.S. population), which make up 62.0 percent of all senior injuries compared to their 55.1 percent share of the senior population; and
  - Senior males account for 933,300 injuries (3,539.4 injuries per 100,000 senior males in the U.S. population), which make up 38.0 percent of all senior injuries versus their 44.9 percent share of the senior population.
- Estimated annual average number of fatalities to seniors ages 65 years and older:
  - Senior males are 1.2 times as likely to experience a consumer product-related death as senior females;
  - Senior females account for 20,840 fatalities (67.1 fatalities per 100,000 senior females in the U.S. population), which make up 50.7 percent of all senior fatalities versus their 55.2 percent share of the senior population; and
  - Senior males account for 20,249 fatalities (80.3 fatalities per 100,000 senior males in the U.S. population), which make up 49.3 percent of all senior fatalities as opposed to their 44.8 percent share of the senior population.
- Estimated annual average number of fatalities to seniors ages 65 years and older involving falls:
  - Senior males are 1.1 times as likely to experience a fall-related death involving a consumer product as senior females;
  - Senior females account for 18,031 fatalities (58.0 fatalities per 100,000 senior females in the U.S. population), which make up 52.2 percent of all senior fatalities in comparison to their 55.2 percent share of the senior population; and
  - Senior males account for 16,483 fatalities (65.4 fatalities per 100,000 senior males in the U.S. population), which make up 47.8 percent of all senior fatalities versus their 44.8 percent share of the senior population.

Per 100,000 Injury Rate Comparisons of Adults (Ages 25 to 64 years) and Seniors (Ages 65 years and older)

- Based on the estimated annual average numbers of ED-treated injury rates per 100,000 people in the U.S. population for the adult and senior age groups:
  - Seniors are 2.1 times as likely to be ED-treated as adults ages 25 to 64; and
  - Seniors are 6.5 times as likely to be ED-treated as adults for serious injuries.[11]
- Based on the estimated annual average numbers of ED-treated injury rates per 100,000 people in the U.S. population involving falls not associated with riding consumer products for the adult and senior age groups:
  - Seniors are 4.3 times as likely to be ED-treated as adults; and
  - Seniors are 9.9 times as likely to be ED-treated as adults for serious injuries.
- Based on the estimated annual average numbers of ED-treated injury rates per 100,000 people in the U.S. population involving non-falls that are not associated with riding consumer products for the adult and senior age groups:
  - Seniors are 0.8 times as likely to be ED-treated as adults; and
  - Seniors are 1.8 times as likely to be ED-treated as adults for serious injuries.
- Based on the estimated annual average numbers of ED-treated injury rates per 100,000 people in the U.S. population involving overexertion injuries to the adult and senior age groups:
  - Seniors are 1.0 times as likely to be ED-treated as adults; and
  - Seniors are 3.7 times as likely to be ED-treated as adults for serious injuries.
- Based on the estimated annual average numbers of fatality rates per 100,000 people in the U.S. population for the adult and senior age groups:
  - Seniors died 10.4 times as frequently as adults;
  - Among fall-related deaths, seniors died 24.9 times as frequently as adults; and
  - Among non-fall-related deaths, seniors died 2.6 times as frequently as adults.

Race

- Estimated proportion of ED-treated injuries to seniors ages 65 years and older where race is known:[12]
  - Senior Whites account for 86.6 percent of all senior injuries, while making up 83.0 percent of the senior population;
  - Senior Blacks/African Americans account for 10.3 percent of all senior injuries, while making up 9.9 percent of the senior population;
  - Senior Asians account for 1.5 percent of all senior injuries, while making up 5.1 percent of the senior population;
  - Senior American Indians/Alaska Natives account for 0.3 percent of all senior injuries, while making up 0.8 percent of the senior population;
  - Senior Native Hawaiians/Pacific Islanders account for 0.1 percent of all senior injuries, while making up 0.2 percent of the senior population; and
  - Senior Multiracial/Other Known Races account for 1.2 percent of all senior injuries, while making up 1.1 percent of the senior population.

[11] Serious injuries include only patients who are treated and transferred, hospitalized, or die while receiving treatment.
[12] In 28.5 percent of all senior cases, the race of the patient is not known, and these cases are excluded from the percentages of known race patients.

- Estimated proportion of fatalities to seniors ages 65 years and older based on years 2021 through 2022:[13]
    - Senior Whites account for 91.1 percent of all senior fatalities, while making up 83.3 percent of the senior population;
    - Senior Blacks/African Americans account for 5.2 percent of all senior fatalities, while making up 9.8 percent of the senior population;
    - Senior Asians account for 2.8 percent of all senior fatalities, while making up 5.0 percent of the senior population;
    - Senior American Indians/Alaskan Natives account for 0.5 percent of all senior fatalities, while making up 0.8 percent of the senior population;
    - Senior Native Hawaiians/Pacific Islanders account for 0.1 percent of all senior fatalities, while making up 0.1 percent of the senior population; and
    - Senior Multiracial/Other Known Races account for 0.3 percent of all senior fatalities, while making up 1.0 percent of the senior population.

Hispanic Ethnicity

- Estimated proportion of ED-treated injuries to seniors ages 65 years and older among patients who are known to be Hispanic or not:[14]
    - Senior Hispanics account for 3.7 percent of all senior injuries, while making up 9.3 percent of the senior population; and
    - The percentages of senior Hispanic injuries are lower than the percentage of Hispanic seniors in the U.S. population in every product/hazard category.
- Estimated proportion of senior fatalities:
    - Senior Hispanics account for 5.0 percent of all senior fatalities, while making up 9.0 percent of the senior population; and
    - The only categories where there are higher proportions of senior Hispanic deaths compared to the proportion of Hispanics in the U.S. population for seniors (9.0 percent of seniors in the U.S. population are Hispanic) are deaths attributed with Burns [Contact with Hot Objects] (9.5 percent of 55 annual deaths), Bicycles and Accessories (11.0 percent of 325 annual deaths), Foreign Body (9.4 percent of 11 annual deaths), and Overexertion (12.3 percent of 5 annual deaths).

[13] Race-based fatality data covers 2021 onward (i.e., excluding 2020) due to differences in Race reporting prior to 2021.
[14] In 32.4 percent of all senior cases, it is unknown whether the patient is Hispanic, and these cases are excluded from the percentages of known ethnicity patients.

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Background on Data Selection

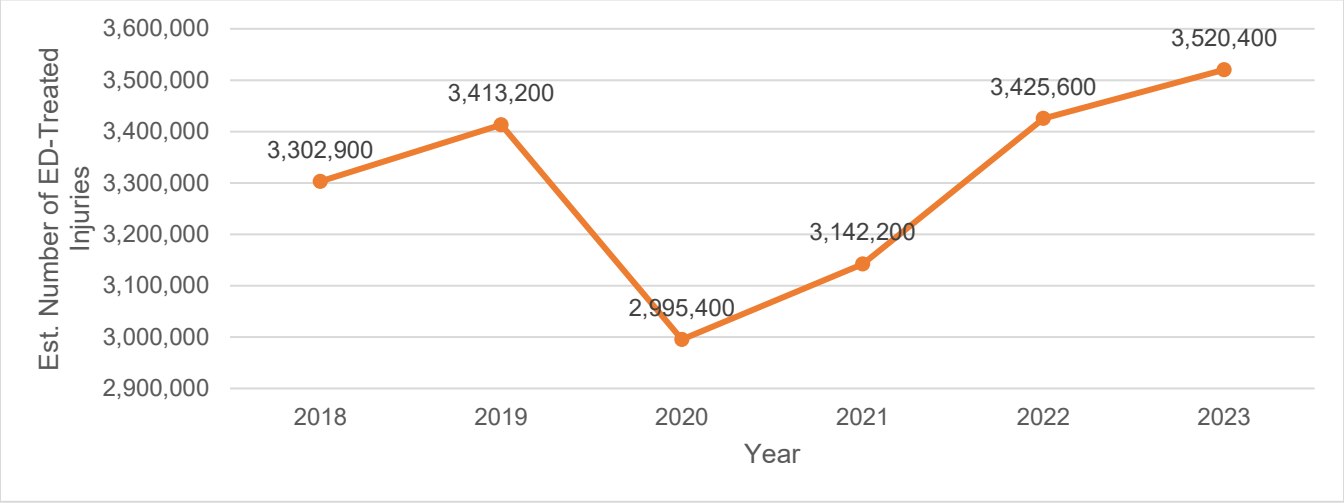
NEISS Injury Data Year Selection

The NEISS is used to estimate the national annual averages for number of ED-treated injuries occurring in the United States over the years 2022 through 2023, comparing estimates for seniors ages 65 years and older to adults ages 25 to 64 years old. Age 25 is selected as a cutoff due to developmental differences, life milestones, and economic stability of adults age 25 and over, compared to adults under the age of 25.[15]

Estimated annual averages for injuries are based on the most recently available two years of NEISS data, 2022 and 2023, because, as Figure 1 shows, 2020 and 2021 appear to be affected by the COVID-19 pandemic with unexpectedly low overall estimates compared to the years before and after, which is in line with other CPSC research into the effects of COVID-19 conditions at hospitals on injury-related hospital visits.[16]

Figure 1 shows the estimated number of ED-treated injuries to all seniors ages 65 years and older, for each year between 2018 and 2023, using every NEISS case for each year. Despite lower estimates for years 2020 and 2021, at a 95-percent confidence level, there is an increasing linear trend in the number of ED-treated injuries to seniors over the years 2018 through 2023. In addition, the overall injury estimates for 2022 and 2023 are each significantly higher than either 2020 or 2021 at a 95-percent confidence level.

Figure 1: Estimated Number of ED-Treated Injuries Involving All Consumer Products for Ages 65 Years and Older by Year, 2018-2023[17]



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

[15] The Pew Research Center reports that a higher percentage of young adults ages 25 to 30 years old hold full-time employment compared to young adults ages 18 to 24 years old: Young adults' economic and family milestones today vs. 30 years ago | Pew Research Center.

[16] 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.

[17] For analysis in this report, some NEISS cases from 2022 and 2023 have been excluded when no consumer product was found to contribute to an ED-treated injury, so the estimates in Figure 1 do not match estimates in the injury section of this report. All excluded cases and reasons for exclusions can be found in Table 37 in Appendix A.

An added benefit of using 2022 and 2023 data is that this report relies on CPSC's "Cause" variable, which codes injuries into overarching product/hazard categories, and which has no missing data since 2022. Table 1 shows the proportion of all NEISS cases for ages 25 years and older in which the Cause variable is coded, for each of the most recent six years.[18]

Table 1: Proportion of All NEISS Cases which Coded the Cause Variable for Ages 25 Years and Older by Year, 2018-2023

Year	# Cases Cause is Coded	Total NEISS Cases	% of NEISS Cases Coded for Cause
Total	**805,489**	**1,038,688**	**78%**
2018	110,351	180,248	61%
2019	115,181	179,489	64%
2020	103,768	162,594	64%
2021	135,344	175,512	77%
2022	163,073	163,073	100%
2023	177,772	177,772	100%

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

This report relies on Cause categories to form the Non-Riding Product Mechanical tier categories analyzed in the injury section; namely, for cases involving a mechanical hazard but not involving fire or a riding consumer product. The following Cause variable categories are in this report: Falls (Cause = 6), Struck Against/By (Cause = 7), Cut/Pierce (Cause = 8), Overexertion (Cause = 9), and Foreign Body (Cause = 15). See Table 34 in Appendix A for all categories of the Cause variable.

The Cause variable is also used to exclude some cases as out of scope. For example, when Cause is coded 16 (i.e., dog bite), 17 (i.e., other bite or sting), 18 (i.e., firearm gunshot), 20 (i.e., natural or environmental), 21 (i.e., adverse effects of therapeutic drugs), or 22 (i.e., adverse effects of surgery or medical care).

In the remaining Cause categories (i.e., Cause = 1-5; 10-14; 19; 88; and 99), for cases involving a mechanical hazard but not involving fire or a riding consumer product, case narratives were read to determine whether a case should be included and to determine which product/hazard category and subcategory[19] to place each case.

[18] NEISS cases with weights equal to zero (indicating they occurred at a hospital during an incomplete reporting period) are not included in the counts in Table 1. Ages 25 years and older are shown in Table 1 since this report analyzes summary statistics for adults ages 25 to 64 years to compare to seniors ages 65 years and older.
[19] The term "subcategory" is used to describe the product 'categories' (or "subcategories") under the umbrella "categories" defined in the Non-Riding Product Mechanical hazard tier. For example, Knives is a subcategory under the Cut/Pierce category in the Non-Riding Product Mechanical hazard tier.

NEISS Injury Data Methodology

NEISS cases are excluded if no consumer product under the jurisdiction of the CPSC is found to contribute to the ED-visit.[20] Of all 340,836 NEISS cases of adults and seniors ages 25 years and older who were ED-treated in 2022 and 2023, 9,119 cases were excluded due to not involving a consumer product (case inclusion and exclusion criteria as well as each exclusion reason and the numbers of cases excluded can be found in Table 37 and throughout Appendix A).[21] The remaining 331,717 NEISS cases of adults and seniors ages 25 years and older involved a consumer product and are therefore included in the analyses below.

While most category and inclusion determinations are based on NEISS coded variables, for cases where narratives were read for categorization determination, the case narratives were principally relied upon to determine inclusion or exclusion and to determine which category to place each case, in conjunction with other variables: Cause, fire involvement (i.e., fmv), product code (i.e., prod1, prod2, and prod3), primary diagnosis (i.e., diag1), and primary body part (i.e., bdpt).[22]

In this report, each NEISS case included was placed in a single category in one of three tiers: Non-Mechanical hazards, Riding Consumer Products, and Non-Riding Product Mechanical hazards. Then, each case in the Non-Riding Product Mechanical hazard tier was placed in a single product subcategory based on the primary product involved. Although more than one product or hazard may be coded in the NEISS or described in case narratives, only one product/hazard category (or subcategory) was selected as the primary or most severe reason for the ED-visit. Categories in the Riding Consumer Products tier are based on consumer product used whereas the categories in the other two tiers are based on hazard pattern. For NEISS cases that are coded to belong in more than one category or subcategory, staff determined which category or subcategory to place each case using a categorization hierarchy to consistently categorize similar cases.

When making these categorization determinations, staff considered patterns in narratives and other variables to consistently place these cases into appropriate categories. Data quality checks were performed by reading narratives to confirm inclusion criteria were met as well as to check for consistency of category and subcategory placement. Discussion on which narratives were read for inclusion or category placement can be found at the end of Appendix A. Descriptions of hierarchy and categorization are detailed in the ED-Treated Injuries section below and in Appendix B. For NCHS cases (i.e., fatalities), there are no narratives, so categorization is based on ICD-10 codes (see Appendix C for details on how ICD-10 codes are used in this report). All category and subcategory definitions can be found in Appendix D.

The following briefly describes the hierarchy methodology for how cases were placed into product/hazard categories. Fire-Related category cases took precedence over all other categories: if a case involved a fire it was placed in the fire-related category regardless of other hazards or products involved. For each case coded as fire related (i.e., the fmv variable = 1, 2, or 3), the case narrative was read to determine whether the case belongs in the Fire-Related

[20] CPSC has jurisdiction over almost all consumer products, while other agencies are primarily responsible for regulating cosmetics, drugs and medicine, food, medical devices, motor vehicles, and incidents while at work, among others. A more complete description list of products or cases not considered under CPSC jurisdiction can be found at: Products Under the Jurisdiction of Other Federal Agencies and Federal Links | CPSC.gov.

[21] NEISS cases with weights equal to zero (indicating they occurred at a hospital during an incomplete reporting period) are not included in the exclusion counts in Table 37 in Appendix A.

[22] See Table 38 through Table 40 for category definitions.

category, while all cases not coded as fire-related (i.e., fmv = 0) were assumed not to involve a fire. Cases where narratives describe incidents involving a fire or biproducts of a fire, like smoke, were placed in the Fire-related category.

Riding Consumer Products are grouped into categories based on product code (i.e., prod1, prod2, and prod3), and the Non-Mechanical hazard categories were categorized based on primary diagnosis (i.e., diag1). For the most part, the categories in these two tiers jointly took precedence over cases in the Non-Riding Product Mechanical hazard tier. Generally, if a case involved a riding consumer product or a non-mechanical hazard, then the case was placed into a category under one of those two tiers instead of in a Non-Riding Product Mechanical hazard tier category, unless the narrative warranted otherwise. In Appendix B, variable categorization of fire-related cases and non-mechanical primary diagnosis cases are presented in Table 38, and product codes for each riding consumer product category are presented in Table 39.

Most mechanical hazard cases not involving riding consumer products were primarily categorized based on the Cause variable. Appendix B contains categorization details for every category and subcategory in the Non-Riding Mechanical hazard tier. Categorization methods using the Cause variable are presented in Table 34 in Appendix A, and detailed categorization of the mechanical hazard categories not involving riding consumer products can be found in Appendix B.

For each category in each tier, Table 3 through Table 13 shows summary statistic comparisons between seniors ages 65 years and older (including senior age groups, 65 to 74 years old, 75 to 84 years old, and 85 years and older) and adults ages 25 to 64 years old; per 100,000 injuries in each population; and by sex, year, disposition, diagnosis, body part, location, race, and Hispanic ethnicity, respectively. Following the tables analyzing the categories from the three tiers, for each case in the Non-Riding Product Mechanical hazard tier, subcategories based on groupings of similar consumer products were formed for some categories where estimates were large enough to present reasonably large annual averages. For instance, for Cut/Pierce category cases, there are two product subcategories, Cut/Pierce Knives injuries and Cut/Pierce Saws injuries, and the remaining Cut/Pierce category injuries are placed in a catchall subcategory: Cut/Pierce Other injuries. Similarly, there are 25 Falls, zero Foreign Body, eight Overexertion, and six Struck Against/By product subcategories. Other than the Foreign Body category, each hazard category contains a catchall Other subcategory for all cases in each respective category that do not belong in any of the Non-Riding Product Mechanical hazard tier subcategories. The same series of summary statistics as seen with the categories are presented for the Non-Riding Product Mechanical hazard tier category subcategories in Table 14 through Table 24.

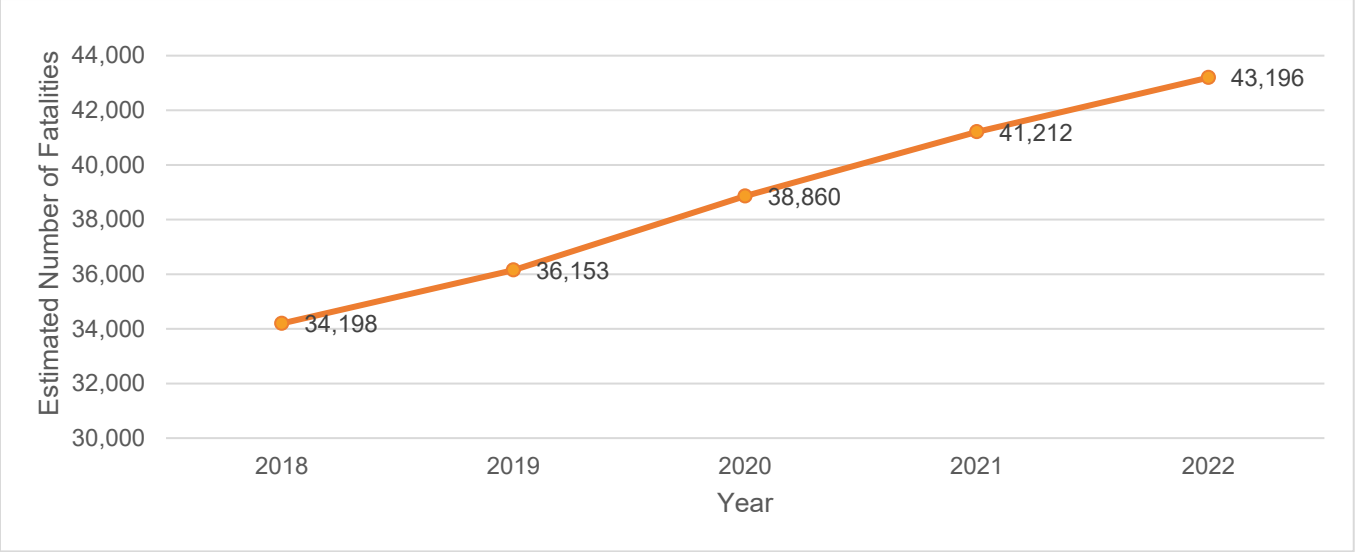
CDC NCHS Mortality Data Year Selection

Figure 2 shows the estimated number of fatalities to seniors ages 65 years and older related to consumer products, for each year between 2018 and 2022,[23] using a subset of consumer product-related ICD-10 codes relevant to CPSC's jurisdiction, of NCHS mortality data. Unlike the drop in the NEISS injuries depicted in Figure 1 for the years 2020 and 2021, it does not appear that the COVID-19 pandemic had much effect on the national estimated number of fatalities related to consumer products during these same years.

[23] As of the writing of this report, 2022 is the most recent year of the NCHS data processed by CPSC with agency-specific weights.

Whereas Figure 1 shows the estimated numbers of ED-treated injuries of all NEISS cases of seniors increasing from 2018 through 2023 in a linear pattern, despite lower estimates in 2020 and 2021 when people were hesitant to visit hospitals during the COVID-19 pandemic, Figure 2 shows an increasing, linear pattern in fatality estimates from 2018 through 2022 with no notable deviations year over year. Therefore, the three most recent years of available mortality data are analyzed.

Figure 2: Estimated Number of Annual Consumer Product-Related Fatalities for Ages 65 Years and Older, 2018-2022[24]



Source: U.S. Center for Disease Control and Prevention (CDC) National Center for Health Statistics (NCHS) mortality data. Estimates are rounded to the nearest one fatality.

CDC NCHS Mortality Data Methodology

CPSC has a database which includes fatalities, the Consumer Product Safety Risk Management System (CPSRMS),[25] but this database accounts for only deaths CPSC is aware of based on various methods of receiving records, which is anecdotal, is not as complete as the NCHS mortality data, and cannot be used to make national estimates.

Instead, this report relies on CDC NCHS mortality data to estimate national annual averages for the numbers of fatalities associated with consumer products occurring in the U.S., based on deaths occurring between 2020 and 2022, comparing seniors ages 65 years and older to adults ages 25 to 64 years old. The CDC provides a brief background description of the NCHS data: "NCHS has linked data from various surveys with death certificate records from the National Death Index (NDI). Linkage of the NCHS survey participant data with the NDI mortality

[24] See the CDC NCHS Mortality Data Methodology section below for further details about the death ratio weights, and Appendix B to see a full list of ICD-10 codes which death categories are based upon.
[25] CPSRMS is 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, and 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.

data provides the opportunity to conduct a vast array of outcome studies designed to investigate the association of a wide variety of health factors with mortality."[26]

CPSC processes these NCHS mortality data, assigning weights to estimate the percentage of ICD-10 codes that are within the scope of CPSC jurisdiction. These weights are based on special studies conducted by CPSC, dating initially back to the late 1970s and mid-1980s. CPSC conducted these special studies to determine the proportion of each ICD code that contain cases associated with consumer products by purchasing a subset of death certificates from U.S. states and reading every case narrative to determine which of these deaths involves a consumer product under CPSC jurisdiction.[27] This produced a weighting system devised to estimate the number of consumer product-related deaths occurring in the U.S. each year. In 2002, CPSC incorporated the shift from the way ICD codes are defined, from version ICD-9 to ICD-10, into the methodology of estimating consumer product-related deaths by again purchasing death certificates and performing an additional special study.[28] In 2016, CPSC conducted a robustness check by once again purchasing death certificates from U.S. states and reading their narratives to determine which deaths involved a consumer product under the CPSC jurisdiction. The results of this robustness check reaffirmed the accuracy of the weighting system.

Table 41 in Appendix C shows the list of ICD-10 codes, along with brief descriptions of products or hazards associated with deaths for each code, and the category which each code was placed for this report. Only the ICD-10 codes appearing in that table have been found to involve a consumer product in at least some of the case narratives read during the special studies. Cases excluded comprise the following: deaths which are work-related (i.e., workrel = Y), deaths to foreign residents (i.e., resident = 4), and deaths occurring while working for income (i.e., activity = 2). There is no narrative variable in the NCHS mortality data to describe incident scenarios, so the ICD-10 variable is the sole source used to categorize cases into product/hazard categories.

Combinations of the following variables, based on the percentages of cases involving consumer products found in the special studies, contribute the most to how weights are assigned to each included NCHS case: ICD-10 code (e.g., death scenario), location of death, and age at time of death. Each case is given a weight value between 0 and 1.0, corresponding to the proportion of times similar cases involved consumer products in the special study. Thus, two cases with the same ICD-10 code may receive different weights if victims are different ages or the death locations differ among the two cases.

For illustration purposes, suppose in the special study that 83 percent of deaths to victims between the ages of 65 and 74 years old who are found jammed between objects (e.g., ICD-10 code W23) at a public location involved a consumer product under CPSC jurisdiction, and 17 percent of cases did not involve such a consumer product. Then, a case in this group, and cases similar to it, would receive a weight of 0.83, and, when summed into estimates, each

[26] More information about the NCHS data can be found here: NCHS Data Linked to NDI Mortality Files.
[27] CPSC has jurisdiction over almost all consumer products, while other agencies are primarily responsible for regulating cosmetics, drugs and medicine, food, medical devices, motor vehicles, incidents while at work, among others. A more complete description list of products or cases not considered under CPSC jurisdiction can be found at: Products Under the Jurisdiction of Other Federal Agencies and Federal Links | CPSC.gov.
[28] Further reading on how weights are created to estimate the number of deaths occurring in the U.S. related to consumer products can be found here: Methodology for Estimating Consumer Product Related Deaths in the United States for the U.S. Consumer Product Safety Commission.

of these cases would count as 0.83 deaths. The national estimates are the sum of these weights.

Micromobility Deaths

Although the injury section above reports on micromobility products (i.e., e-bikes, e-scooters, and hoverboards), the death section below does not report on micromobility products because CPSC does not have access to ICD-10 code V00 (e.g., deaths involving roller skates, micromobility products, standing electric scooters [e-scooters], other standing micromobility pedestrian conveyances, other pedestrian conveyances, and rolling-type pedestrian conveyances).[29] Consequently, for micromobility products only, fatality data relies on CPSRMS and is reported in Table 2.[30]

Table 2 shows the minimum numbers of fatalities known to have occurred between 2020 and 2022 involving micromobility products in the CPSRMS, by sex (shown in parentheses). Among all senior micromobility deaths CPSC is aware of, 82 percent (23 out of 28 deaths) were to males. Of the known 28 micromobility deaths to seniors, 20 (71 percent) involved e-bikes, 7 (25 percent) involved e-scooters, and 1 (4 percent) involved a hoverboard. There were the same number of micromobility deaths to seniors ages 85 years and older as seniors ages 75 to 84 years (4 deaths each), and there were over four times as many known adult micromobility deaths (122 deaths) as senior micromobility deaths (28 deaths) occurring between 2020 and 2022.

Table 2: (Minimum) Number of Reported Fatalities Associated with Micromobility Products by Year based on CPSC's CPSRMS database, 2020-2022; (Male) (Female) (Unknown Sex)

Micromobility Products	Adults Ages 25 to 64 Years	Seniors Ages 65 Years and Older	65 to 74 Years	75 to 84 Years	85 Years and Older
All Micromobility Products	**122** (98) (22) (2)	**28** (23) (5) (0)	**20** (18) (2) (0)	**4** (3) (1) (0)	**4** (2) (2) (0)
E-Bikes	67 (55) (12) (0)	20 (18) (2) (0)	18 (16) (2) (0)	2 (2) (0) (0)	0 (0) (0) (0)
E-Scooters	51 (40) (9) (2)	7 (5) (2) (0)	2 (2) (0) (0)	1 (1) (0) (0)	4 (2) (2) (0)
Hoverboards	4 (3) (1) (0)	1 (0) (1) (0)	0 (0) (0) (0)	1 (0) (1) (0)	0 (0) (0) (0)

Source: U.S. Consumer Product Safety Commission: CPSRMS. The counts in this table constitute all micromobility deaths to victims known to be ages 25 years and older in CPSC's CPSRMS database, assumed to be a minimum number of micromobility deaths which occurred between 2020 and 2022. There are 22 deaths to victims of unknown ages not included in Table 2. Note that these are deaths reported to CPSC rather than a census of micromobility deaths occurring in the U.S.

[29] V00 was not on the ICD-10 list at the time CPSC initiated the special studies.

[30] A CPSC report on micromobility injuries and fatalities posted in October 2024 can be found here: Micromobility Products-Related Deaths, Injuries, and Hazard Patterns: 2017–2023 | CPSC.gov.

Emergency Department-Treated Injuries

Introduction

There are an estimated annual average 3,177,300 ED-treated injuries to seniors ages 65 years and older, and an estimated annual average 4,369,300 ED-treated injuries to adults ages 25 to 64 years old, associated with consumer products in the U.S., for the years 2022 and 2023.

These statistics are further broken down into product/hazard tiers—Non-Mechanical, Riding Consumer Products, and Non-Riding Product Mechanical. In the sections below, each product/hazard tier is listed with the product categories they comprise. Refer to Appendix B for category definitions and categorization methodology, and Appendix D for a brief description of products and incident scenarios constituting each category, including proportions of products, product codes, or diagnoses which compose each category.

Non-Mechanical Hazard Tier[31]

Non-Mechanical hazard tier injuries include the following categories: Fire-Related, Burns - Non-Fire Thermal, Burns – Scalding, Burns – Other/Electric Shock, Allergy/Dermatitis/Other Skin Issues, Anoxia/Aspiration/Submersion, Ingestion, and Poisoning. Among the estimated 3,177,300 annual average ED-treated injuries to seniors, 43,600 injuries (1 percent) are due to Non-Mechanical hazards.

Riding Consumer Products Tier[32]

Riding Consumer Products tier injuries include the following categories: Animal Riding, Bicycles and Accessories (hereafter, Bicycles), Golf Carts, Micromobility, Off Highway Vehicles (i.e., OHVs), and Other Riding Consumer Products, which includes all other riding consumer products not incorporated into the other riding consumer product categories. Among the estimated 3,177,300 annual average ED-treated injuries to seniors, 90,200 injuries (3 percent) are associated with Riding Consumer Products. The proportion of included cases in each riding consumer product category which are motor vehicle related are in Table 42 in Appendix D.

Non-Riding Product Mechanical Hazard Tier[33]

Non-Riding Product Mechanical hazard tier injuries include the following categories: Cut/Pierce, Falls, Foreign Body, Overexertion, Struck Against/By, and Other/Unknown—which includes all other non-riding consumer products not incorporated into the other non-riding consumer product categories. Among the estimated 3,177,300 annual average ED-treated injuries to seniors, 3,043,400 injuries (96 percent) involve Non-Riding Product Mechanical hazards. Falls (not involving riding consumer products) constitute the most injuries to seniors,

[31] Non-Mechanical hazard tier categories are based on a fire-related incident variable (i.e., fmv), the primary diagnosis variable (i.e., diag1), case narratives (which are defined in Table 38), and further methodology and details about categorization is discussed in Appendix B.
[32] Riding Consumer Products tier categories are based on product codes prod1, prod2, and prod3, which are defined in Table 39, and further methodology is discussed in Appendix B.
[33] Non-Riding Product Mechanical hazard tier categories are based on case narratives and the Cause variable, as defined in Table 34 and Table 35 in Appendix A.

accounting for an annual average 2,453,500 ED-treated injuries, or 77 percent of all senior injuries, compared to falls constituting 38 percent of all adult injuries.

Product/Hazard Category Injury Analysis

There is an estimated annual average 3,177,300 ED-treated injuries to seniors ages 65 years and older, and an estimated annual average 4,369,300 ED-treated injuries to adults ages 25 to 64 years old associated with consumer products in the U.S., based on the years 2022 and 2023. Among the estimated annual average ED-treated injuries to seniors, 43,600 injuries (1 percent) are associated with Non-Mechanical hazards, 90,200 injuries (3 percent) are associated with Riding Consumer Products, and 3,043,400 injuries (96 percent) are associated with Non-Riding Products with Mechanical hazards. Falls is the category with the most injuries to seniors, accounting for an estimated annual average 2,453,500 ED-treated injuries, or 77 percent of all annually ED-treated senior injuries.

In many of the tables below (i.e., Tables 5; 8-13), instead of listing the estimated annual average number of ED-treated injuries to seniors and adults for the various statistical analyses for each product/hazard category, two percentages are shown to compare proportions of all ED-treated injuries between two groups—namely, comparing the percentage of female ED-treated injuries and percentage of male ED-treated injuries for each product/hazard category in Table 5, and comparing the percentage of adult ED-treated injuries and the percentage of senior ED-treated injuries for each product/hazard category by disposition, diagnosis, body part injured, location of injury, race, and Hispanic ethnicity in Table 8 through Table 13, respectively.

Comparing the percentages of total estimates better conveys the magnitude of difference between the age or sex groups rather than viewing subsets of estimated numbers out of the total injuries for each group, side-by-side, because there are often more total injuries in one group than the other group being compared.

For example, the Micromobility category in Table 8, which compares adult and senior age groups based on percentage breakdowns of injury severity for micromobility-related ED-treated injuries, shows that of all senior ED-treated micromobility-related injuries, 23.1 percent result in a hospitalization whereas 13.9 percent of adult ED-treated micro mobility-related injuries result in a hospitalization. This means that out of all ED-treated micromobility-related injuries, nearly twice the proportion of seniors are hospitalized compared to the proportion of adults hospitalized. If the estimated annual average number of ED-treated injuries were presented instead of these two percentages, the comparison would have been an estimated annual average 8,600 ED-treated hospitalization injuries to adults involving micromobility products versus 1,700 injuries for seniors—indicating that there are more than five times as many adult hospitalizations annually than annual senior hospitalizations involving micromobility products but obfuscating the fact that, relatively speaking, seniors have a higher injury rate for this hazard area (given the estimated annual average 61,600 ED-treated micromobility-related injuries to adults vs. 7,200 for seniors).

To recap, although there are more than five times as many overall adult annual hospitalizations than seniors involving micromobility products, seniors experience a hospitalization rate due to ED-treated micromobility injuries nearly twice as frequently as adults. This is even more surprising when considering the percentage of micromobility-related injuries involving a motor vehicle in each age group shown in Table 42 in Appendix D. In 27 percent of adult and 13 percent of senior ED-treated micromobility-related injuries a motor vehicle is involved. Micromobility injuries involving a motor vehicle tend to result in more

serious injuries than incidents not involving a motor vehicle, so the fact that a higher proportion of adult micromobility-related ED-treated injuries involve a motor vehicle while the proportion of adults being hospitalized is much lower than the proportion of seniors is telling.

To calculate the number of estimated annual average ED-treated injuries in the tables containing only percentages (i.e., Tables 5; 8-13), simply multiply the percentages by the corresponding total number of estimated annual average number of ED-treated injuries appearing in Table 3 for each cell in the tables. Note that the annual estimates in the tables below are rounded to the nearest 100 and percentages are rounded to the nearest tenth of a percent, therefore calculations based on these rounded numbers will have a small rounding error.

For example, in Table 8, adult and senior age groups are compared based on percentage breakdowns by injury severity for each category. In the Falls category in this table, 31.7 percent of Falls injuries to seniors result in a hospitalization, while only 13.4 percent of adult Falls injuries result in a hospitalization. To get the annual average estimates for the number of ED-treated seniors due to Falls resulting in a hospitalization, multiply the total number of senior Falls injuries in Table 3 (2,453,500) by the percent of senior Falls injuries which result in a hospitalization in Table 8 (31.7 percent). Therefore, there is an estimated annual average 777,800 (e.g., 2,453,500 * 0.317 = 777,759.5) ED-treated injuries to seniors resulting from Falls that require a hospitalization. The actual unrounded estimate for this number is 777,375, meaning calculating using the numbers from the Tables below results in an overestimate by 384.5 injuries (777,759.5 – 777,375 = 384.5) or by a factor of 0.05 percent (1 – (777,759.5 / 777,375) = 0.00049).

Table 3 shows the estimated annual average number of ED-treated injuries **by age group** and product/hazard category. The proportion of senior injuries to seniors in each age group are shown for each category, as well as the proportion of each senior age group among all seniors in the U.S. population.

In the Micromobility category in Table 3, among all senior injuries, 73.3 percent of all ED-treated micromobility injuries to seniors are to seniors ages 65 to 74 years, while seniors ages 65 to 74 years make up 58.2 percent of the senior population, which means a much larger proportion of senior ED-treated injuries involving micromobility products are to seniors 65 to 74 years compared to the proportion of this age group among all seniors in the U.S. population. Conversely, 6.3 percent of all ED-treated micromobility injuries to seniors are to seniors ages 85 years and older compared to the 11.2 percent of the senior population they make up, which means a much smaller proportion of senior ED-treated injuries involving micromobility products are to seniors 85 years and older compared to the proportion of this age group among all seniors in the U.S. population.

In the Falls category, a much larger proportion of senior Falls injuries are to seniors ages 85 years and older (29.0 percent of all senior Falls injuries), compared to the proportion of seniors ages 85 years and older in the U.S. population (11.2 percent of all seniors).

Table 3: Annual Average Estimated Number of ED-Treated Injuries for Age Groups by Product/Hazard, 2022-2023 (Percent of the Annual Average Estimated Number of ED-Treated Injuries of Seniors Ages 65 Years for each Senior Age Group)

Product/Hazard	Adults Ages 25 to 64 Years	Seniors Ages 65 Years and Older	65 to 74 Years	75 to 84 Years	85 Years and Older
Annual Average U.S. Population Estimate	**171,786,073**	**58,714,346**	**34,145,871**	**18,001,767**	**6,566,709**
Percent of the U.S. Senior Population			**58.2%**	**30.7%**	**11.2%**
Annual Average Injuries	**4,369,300**	**3,177,300**	**1,267,100**	**1,124,200**	**785,900**
Percent of Senior Injuries		**100%**	**39.9%**	**35.4%**	**24.7%**
Non-Mechanical	**188,500**	**43,600**	**27,000 (61.8%)**	**12,900 (29.5%)**	**3,800 (8.7%)**
Fire-Related	37,200	11,300	6,700 (59.7%)	3,700 (32.7%)	900 (7.6%)
Burns - Non-Fire Thermal	22,500	5,100	3,500 (68.3%)	1,200 (23.3%)	– (8.4%)
Burns – Scalding	27,400	6,400	4,100 (64.1%)	1,800 (28.6%)	– (7.3%)
Burns – Other/ Electric Shock	26,300	4,900	3,400 (69.1%)	1,300 (25.6%)	– (5.3%)
Allergy/Dermatitis/ Other Skin Issues	35,300	6,000	3,400 (55.9%)	1,900 (31.8%)	700 (12.4%)
Anoxia/Aspiration/ Submersion	11,300	3,300	2,000 (61.0%)	1,000 (31.5%)	– (7.5%)
Ingestion	10,600	2,000	1,200 (58.8%)	– (22.4%)	– (18.8%)
Poisoning	17,700	4,600	2,700 (58.1%)	1,500 (32.9%)	– (8.9%)
Riding Consumer Products	**422,700**	**90,200**	**57,900 (64.2%)**	**26,600 (29.5%)**	**5,700 (6.3%)**
Animal Riding	20,500	4,300	3,200 (74.1%)	1,100 (25.9%)	– (0.0%)
Bicycles and Accessories	192,300	51,700	35,400 (68.6%)	13,800 (26.8%)	– (4.7%)
Golf Carts	8,700	–	– (40.4%)	– (48.2%)	– (11.4%)
Micromobility	61,600	7,200	5,300 (73.3%)	1,500 (20.4%)	– (6.3%)
OHVs	44,500	4,700	2,800 (58.9%)	1,800 (37.5%)	– (3.6%)
Other Riding Products	95,100	15,000	8,200 (55.1%)	4,900 (32.9%)	1,800 (12.0%)
Non-Riding Product Mechanical	**3,758,200**	**3,043,400**	**1,182,300 (38.8%)**	**1,084,700 (35.6%)**	**776,400 (25.5%)**
Cut/Pierce	595,100	129,600	83,300 (64.3%)	37,400 (28.8%)	8,900 (6.9%)
Falls	1,664,200	2,453,500	845,000 (34.4%)	896,900 (36.6%)	711,600 (29.0%)
Foreign Body	68,000	10,800	7,100 (65.6%)	2,600 (24.4%)	1,100 (10.1%)
Overexertion	761,600	257,600	143,700 (55.8%)	86,500 (33.6%)	27,400 (10.6%)
Struck Against/By	645,600	180,300	98,100 (54.4%)	57,300 (31.8%)	24,900 (13.8%)
Other/Unknown	23,800	11,500	5,000 (43.7%)	4,000 (34.5%)	2,500 (21.7%)

Source: U.S. Consumer Product Safety Commission: NEISS. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Estimates are rounded to the nearest hundred and therefore may not add up to the total. Percentages are rounded to the nearest tenth of a percent, and therefore may not sum to 100.

Table 4 shows the estimated annual average ED-treated **injury rates per 100,000 people in the U.S. population** for each age group, and in parentheses are the estimated annual average numbers of ED-treated **injury rates for *serious* injuries**—that is, ED-treated injuries which result in death, hospitalization, or being treated and transferred (i.e., disp = 8, 4, or 2, respectively)—for the adult and senior age groups for each product/hazard category. In addition, in the second column of Table 4, injury rate ratios comparing the per 100,000 estimates of ED-treated injuries, and in parentheses comparing the ratios of per 100,000 estimates of serious ED-treated injuries, of the senior age group with respect to the adult age group for each product/hazard category are presented. Injury estimates per 100,000 individuals in the population and injury rate ratios are also presented in Table 6, comparing males to females. The following paragraphs describe how estimates of per 100,000 individuals in the U.S. population and injury rate ratio estimates in Tables 4, 6, 15, 17, 26, and 28 are calculated and interpreted.

The injury rates per 100,000 people in the U.S. population for each age group are computed by dividing the average annual estimates from Table 3 by the average annual number of people living in the U.S. population for the respective age group during the years the estimates represent (i.e., the annual average population over the years 2022 through 2023 given in the first row of Table 3), and then multiplying the quotient by 100,000. Since annual estimates are based on the years 2022 and 2023, using U.S. Census data, population averages over the 2-year period are used in injuries per 100,000 calculations for each age group.

For example, in the Fire-Related category in Table 3 there is an estimated annual average 11,300 ED-treated fire-related injuries to seniors (which is based on the unrounded estimate of 11,252 injuries), and there is an annual average 58,714,346 seniors living in the U.S. population over the years 2022 through 2023. Therefore, there is an estimated annual average 19.2 (11,252 / 58,714,346 * 100,000 = 19.2) ED-treated Fire-Related injuries to seniors per 100,000 seniors in the U.S. population over the years 2022 and 2023. Unrounded estimates are used in all per 100,000 and injury rate ratio calculations in this report, so calculations using rounded table estimates may lead to slightly different results than per 100,000 estimates shown in the tables.

Injury rate ratios standardize the injury comparisons between two groups, such as seniors with respect to adults in Table 4 and males with respect to females in Table 6. In Table 4, injury rate ratios compare the proportion of seniors in the U.S. population who are ED-treated with the proportion of adults in the U.S. population who are ED-treated by illuminating how much more or less frequently the proportion of the former group compares to the proportion of the latter group. More simply, the injury rate ratio compares how much more or less frequently seniors are ED-treated than adults in the U.S. population. These injury rate ratios are computed by simply dividing the per 100,000 estimates of the senior age group over the per 100,000 estimates of the adult age group, for each product/hazard category, thereby quantifying the magnitude of the difference between the adult and senior age groups being ED-treated.

Injury rate ratio values equal to 1.0 indicate seniors and adults experience ED-treated injuries at the same frequency in the U.S. population. Injury rate ratio values greater than 1.0 in Table 4 indicate seniors experience ED-treated injuries more frequently than adults in the U.S. population for that product/hazard category. Conversely, injury rate ratio values less than 1.0 indicate seniors experience ED-treated injuries less frequently than adults in the U.S. population for that product/hazard category. And the value's distance from 1.0 expresses the percentage of how much more frequently or infrequently seniors experience ED-treated injuries compared to adults.

For instance, a value of 2.1 indicates that there are about 210 percent or 2.1 times as many senior ED-treated injuries as adult ED-treated injuries in the U.S. population for the given product/hazard category; or, for about every 2,100 senior ED-treated injuries there are 1,000 adult ED-treated injuries in the U.S. population. Similarly, a value of 0.4 indicates that there are about 40 percent, or 0.4 times, as many senior ED-treated injuries as adult ED-treated injuries in the U.S. population for the given product/hazard category; or, for every 400 senior ED-treated injuries there are 1,000 adult ED-treated injuries in the U.S. population.

For example, the second column in Table 4 shows that among Struck Against/By ED-treated injuries, seniors are ED-treated 0.8 times as frequently (307.2/375.8 = 0.8), but ED-treated for serious injuries 1.9 times as frequently as adults (29.3/15.2 = 1.9). This means that adults are ED-treated as a result of Struck Against/By injuries more frequently than seniors, but seniors are ED-treated for serious injuries as a result of Struck Against/By injuries more frequently than adults. In general, Struck Against/By injuries appear to result in more serious injuries to seniors than adults.

For injury rate ratios less than 1.0 in Table 4, to calculate the injury rate ratio of adults *with respect to* seniors, or in other words, to find out how much higher is the rate that adults are being ED-treated than seniors in the U.S. population, simply divide the adult per 100,000 estimate over the senior per 100,000 estimate.

For example, in the Micromobility category, the injury rate ratio comparing seniors *with respect to* adults is 0.3, so seniors are ED-treated about 0.3 times or 30 percent as frequently as adults in the U.S. population. About 35.9 adults per 100,000 adults in the U.S. population and 12.3 seniors per 100,000 seniors in the U.S. population are ED-treated annually for an injury associated with a micromobility product, such as an e-bike or e-scooter. Therefore, the proportion of adults in the U.S. who are ED-treated is about 2.9 (35.9 / 12.3 = 2.9) times, or 290 percent, as frequently as the proportion of seniors in the U.S. for injuries involving micromobility products.

Note that in Table 4, the per 100,000 estimates are rounded to the first decimal place, but injury rate ratios are computed without using the rounded, per 100,000 estimates presented in the table. Therefore, some injury rate ratio values do not appear accurate, such as the Anoxia/Aspiration/Submersion injury rate ratio estimate for all ED-treated injuries, which is shown to be 0.9 (the unrounded estimate is 0.851) in Table 4 rather than 0.8 (which is the result from computations using the rounded adult and senior Table 4 values [e.g., 5.6 / 6.6 = 0.848 and rounded to 0.8]). The rounded adult per 100,000 estimate is 6.6, and the rounded senior estimate is 5.6, while the injury ratio rate estimate is 0.9. The reason the injury rate ratio is 0.9 is because the unrounded per 100,000 adult estimate is actually 6.604, and the unrounded senior estimate is actually 5.622.

Among all ED-treated injuries from all categories, seniors are 2.1 times as likely as adults to be ED-treated and 6.5 times as likely to be ED-treated for serious injuries in the U.S. population—keeping in mind that 77 percent of all senior injuries and 38 percent of adult injuries are associated with Falls injuries. This means that Falls injuries have more influence over all injuries to seniors than all injuries to adults. For Falls injuries, seniors are 4.3 times as likely as adults to be ED-treated and 9.9 times as likely to be ED-treated for serious injuries in the U.S. population, whereas for non-Falls injuries, they are 0.8 times as likely as adults to be ED-treated and 1.8 times as likely to be ED-treated for serious injuries in the U.S. population.

The injury rate ratios comparing seniors with respect to adults for serious ED-treated injuries are higher than the injury rate ratios for all ED-treated injuries for every product/hazard category except Foreign Body (injury rate ratio and serious injury rate ratio are 0.5 each, for seniors compared to adults), for estimates that are reportable (c.f., Golf Carts). This means injuries in every reportable product/hazard category appear to result in as serious or more serious injuries to seniors than adults. The product/hazard categories with the biggest difference between the injury rate ratios of serious injuries compared to all injuries is Overexertion injuries (injury rate ratio is 1.0 and serious injury rate ratio is 3.7, for seniors compared to adults).

Among all ED-treated injuries, adults are treated at a higher rate than seniors in the U.S. population in every product/hazard category *except for* Falls (injury rate ratio of 4.3, for seniors compared to adults), and the frequency is about the same among adults and seniors for Overexertion injuries (injury rate ratio of 1.0). Meanwhile, among serious ED-treated injuries, seniors are treated at as high of rate or a higher rate than adults in the U.S. population in every product/hazard category *except for* Micromobility (injury rate ratio of 0.6), OHVs (injury rate ratio of 0.5), Other Riding Products (injury rate ratio of 0.8), Cut/Pierce (injury rate ratio of 0.9), and Foreign Body injuries (injury rate ratio of 0.5).

Comparing per 100,000 injury rates for ED-treated and serious ED-treated injuries among the three senior age groups, staff noted the following:

- Among all Non-Mechanical hazard injuries:
    - seniors ages 65 to 74 years are ED-treated more frequently than the other two senior groups, while seniors ages 75 to 84 years are ED-treated for serious injuries slightly more frequently than the other two senior groups; and
    - although seniors ages 85 years and older experience a bit less frequent ED-treatments, the frequency of serious ED-treated injuries is not much different than the other two senior age groups.
- Among Riding Consumer Products injuries:
    - seniors in the younger two senior age groups, ages 65 to 74 years and 75 to 84 years, are ED-treated and ED-treated for serious injuries more frequently than seniors ages 85 years and older;
    - in the Bicycles and Micromobility categories, seniors ages 65 to 74 years are ED-treated more frequently than seniors ages 75 to 84 years; and
    - in the Other Riding Products category, all three senior groups experience ED-treated injuries at about the same rate.
- Among Non-Riding Product Mechanical hazard injuries:
    - in the Cut/Pierce category, seniors in the younger two senior age groups are ED-treated at rates considerably higher than the oldest senior age group;
    - in the Falls category, seniors ages 85 years and older are ED-treated and ED-treated for serious injuries at over two times the rate as seniors ages 75 to 84 years, and seniors ages 85 years and older are ED-treated at over four times the rate for ED-treated injuries and ED-treated for serious injuries at over five and a half times the rate as seniors ages 65 to 74 years old;
    - in the Foreign Body category, all three senior age groups experience ED-treated injuries at about the same rate, but seniors ages 85 years and older experience serious ED-treated injuries at a higher rate than seniors in the other two senior age groups;

- in the Overexertion category, seniors ages 75 to 84 years are ED-treated slightly more frequently than the other two senior age groups, while seniors in the older two age groups are ED-treated for serious injuries at higher rates than the youngest senior age group; and
- in the Struck Against/By category, as seniors progress into older age groups, the frequency of ED-treated and serious ED-treated injuries goes up.

Table 4: Injury Rate (per 100,000 Population) for Age Groups and Injury Rate Ratio Comparisons for Seniors with Respect to Adults by Product/Hazard, 2022-2023 (Serious Injuries)

Product/Hazard	Injury Rate Ratio for Seniors Compared to Adults	Adults Ages 25 to 64 Years	Seniors Ages 65 Years and Older	65 to 74 Years	75 to 84 Years	85 Years and Older
Annual Average Per 100,000 Population: All Injuries (Serious Injuries)	**2.1 (6.5)**	**2,543.8 (251.1)**	**5,411.4 (1,621.4)**	**3,711.0 (905.0)**	**6,245.2 (1,976.2)**	**11,967.6 (4,374.3)**
Non-Mechanical	**0.7 (1.2)**	**109.7 (15.1)**	**74.3 (18.7)**	**78.9 (17.5)**	**71.5 (21.7)**	**57.7 (16.5)**
Fire-Related	0.9 (1.2)	21.7 (7.1)	19.2 (8.4)	19.7 (8.0)	20.4 (9.6)	13.0 (–)
Burns - Non-Fire Thermal	0.7 (1.2)	13.1 (1.4)	8.8 (1.8)	10.3 (2.2)	6.7 (–)	– (–)
Burns – Scalding	0.7 (1.0)	15.9 (1.9)	10.9 (1.8)	12.0 (–)	10.1 (–)	– (–)
Burns – Other/ Electric Shock	0.5 (1.3)	15.3 (1.0)	8.4 (1.3)	10.0 (–)	7.0 (–)	– (–)
Allergy/Dermatitis/ Other Skin Issues	0.5 (–)	20.6 (0.5)	10.2 (–)	9.8 (–)	10.6 (–)	11.3 (–)
Anoxia/Aspiration/ Submersion	0.9 (–)	6.6 (1.2)	5.6 (–)	5.9 (–)	5.8 (–)	– (–)
Ingestion	0.6 (–)	6.2 (1.1)	3.4 (–)	3.4 (–)	– (–)	– (–)
Poisoning	0.8 (1.8)	10.3 (1.0)	7.9 (1.8)	7.9 (–)	8.5 (–)	– (–)
Riding Consumer Products	**0.6 (1.1)**	**246.0 (40.2)**	**153.7 (43.9)**	**169.7 (47.7)**	**148.1 (43.9)**	**86.4 (–)**
Animal Riding	0.6 (1.0)	11.9 (2.4)	7.3 (2.4)	9.4 (3.1)	6.2 (–)	– (–)
Bicycles and Accessories	0.8 (–)	111.9 (17.5)	88.0 (–)	103.8 (–)	76.8 (–)	– (–)
Golf Carts	– (–)	5.1 (–)	– (–)	– (–)	– (–)	– (–)
Micromobility	0.3 (0.6)	35.9 (5.4)	12.3 (3.3)	15.5 (3.8)	8.2 (–)	– (–)
OHVs	0.3 (0.5)	25.9 (6.1)	8.0 (3.1)	8.1 (2.6)	9.8 (5.0)	– (–)
Other Riding Products	0.5 (0.8)	55.3 (7.7)	25.5 (6.2)	24.1 (7.0)	27.3 (4.0)	27.4 (–)
Non-Riding Product Mechanical	**2.4 (8.0)**	**2,187.7 (195.8)**	**5,183.4 (1,558.8)**	**3,462.4 (839.7)**	**6,025.6 (1,910.6)**	**11,823.5 (4,334.0)**
Cut/Pierce	0.6 (0.9)	346.4 (11.4)	220.8 (10.1)	244.1 (11.1)	207.6 (9.4)	136.0 (–)
Falls	4.3 (9.9)	968.8 (144.6)	4,178.7 (1,431.9)	2,474.7 (733.9)	4,982.5 (1,762.1)	10,836.1 (4,156.6)

Foreign Body	0.5 (0.5)	39.6 (1.8)	18.4 (–)	20.8 (–)	14.6 (–)	16.6 (–)
Overexertion	1.0 (3.7)	443.3 (21.8)	438.7 (79.7)	420.9 (67.6)	480.4 (96.1)	416.9 (97.5)
Struck Against/By	0.8 (1.9)	375.8 (15.2)	307.2 (29.3)	287.2 (22.3)	318.5 (33.7)	379.8 (53.5)
Other/Unknown	1.4 (6.7)	13.8 (1.0)	19.6 (6.9)	14.7 (4.0)	22.1 (8.6)	38.1 (–)

Source: U.S. Consumer Product Safety Commission: NEISS. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Per 100,000 estimates are rounded to the nearest tenth and therefore may not add up to the total.

To compare **sex-based differences** between the estimated numbers of injuries to males and females, Table 5 presents the percent of the estimated annual average number of ED-treated injuries to males, and the percent of injuries to females in parentheses, for each age group and category, and the U.S. population percentages for males and females for the respective age groups for comparison purposes. For consistency, males are listed first in all tables comparing sexes in this report since males experience higher rates of injuries per 100,000 population than females (see Table 6) in most product/hazard categories, and since ratio values greater than one, or ratios of the sex with the higher rate compared to the sex with the lower rate, are easier to interpret.

If the proportion of male or female injuries is higher than the proportion of males or females in the U.S. population for a particular age group and category, then that sex is at a higher risk than the opposite sex for that particular age group and category of interest. Although senior females account for higher proportions of all ED-treated injuries than males, in fact, they are only disproportionately represented in two categories, Animal Riding injuries (69.3 percent) and Falls injuries (62.0 percent), compared to the percentage of senior females in the U.S. population (55.1 percent). There are higher proportions of senior male ED-treated injuries in most product/hazard categories but, since 77 percent of all injuries are Falls injuries, senior females account for more total ED-treated senior injuries compared to their share of the U.S. population. Among all ED-treated injuries to seniors, a slightly higher proportion are female (58.4 percent) compared to the proportion of female seniors in the U.S. population (55.1 percent), and the proportion of injuries to seniors in each of the three senior age groups is relatively slightly higher for females than the proportions of females in the U.S. population. Among all injuries to seniors ages 65 to 74 years, 53.7 percent are to females (vs. a population share of 52.9 percent); among all injuries to seniors ages 75 to 84 years, 58.4 percent are to females (vs. a population share of 55.8 percent); and among all injuries to seniors ages 85 years and older, 66.0 percent are to females (vs. a population share of 64.6 percent). Meanwhile, among all injuries, a slightly higher proportion of ED-treated adults (i.e., ages 25-64) are male (54.2 percent) compared to their proportion of the U.S. population (50.2 percent). Therefore, a higher percentage of adult males are being ED-treated than adult females, and a higher percentage of senior females in each senior age group are being ED-treated than senior males, when compared to the proportions of females and males in each respective age group in the U.S. population.

In the Fire-Related category, consider the percentages of ED-treated injuries to females and the percentages of females in the U.S. population for each of the three senior age groups. In the oldest age group, ages 85 years and older, the percentage of female fire-related injuries (62.8 percent) is about the same as the percentage of females in the U.S. population for that age group (64.6 percent). Meanwhile the percentage of female fire-related injuries is far lower than percentage of females in the U.S. population for the 75 to 84 years age group (38.5

percent of fire-related injuries and 55.8 percent of the U.S. population are female) and the 65 to 74 years age group (36.3 percent of fire-related injuries and 52.9 percent of the U.S. population are female). Therefore, senior females and males are being treated at about the same frequencies for fire-related injuries in the 85 years and older age group, while a higher percentage of senior males are being ED-treated for fire-related injuries than senior females in the younger two senior age groups compared to their proportions of the U.S. population of seniors.

Senior males also account for a far higher percentage of all Riding Consumer Products (70.1 percent of such injuries are to males) compared to the percentage of senior males in the U.S. population (44.9 percent), taking into account the Animal Riding category which has a higher percentage of senior female injuries compared to their U.S. population share. The percentage of senior male injuries are much higher than the percent of males in the U.S. population (44.9 percent) for each of these riding consumer product categories: Bicycles (72.9 percent), Golf Carts (57.7 percent), Micromobility products (64.9 percent), OHVs (77.6 percent), and Other Riding Products (77.6 percent).

Likewise, senior males account for a higher percentage of Burns – Other/Electric Shock injuries (69.2 percent), Cut/Pierce injuries (65.4 percent), Fire-Related injuries (61.0 percent), and Foreign Body injuries (59.9 percent) compared to the percentage of senior males in the U.S. population (44.9 percent). Most of the percentages of females and males in the categories not mentioned above are close to the percentages of females and males in the U.S. population for each senior age group.

In fact, senior females account for proportions of injuries at least five percent higher than the proportions of senior females in the population in only two categories: Animal Riding injuries (69.3 percent) and Falls injuries (62.0 percent) compared to the percentage of senior females in the U.S. population (55.1 percent).

Table 5: Percent of the Annual Average Estimated Number of ED-Treated Injuries for Age Groups by Product/Hazard and Sex, 2022-2023; Male (Female)

Product/Hazard	Adults Ages 25 to 64 Years	Seniors Ages 65 Years and Older	65 to 74 Years	75 to 84 Years	85 Years and Older
Percent of the U.S. Population Male (Female)	50.2% (49.8%)	44.9% (55.1%)	47.1% (52.9%)	44.2% (55.8%)	35.4% (64.6%)
Percent of All Injuries	54.2% (45.7%)	41.6% (58.4%)	46.3% (53.7%)	41.6% (58.4%)	34.0% (66.0%)
Non-Mechanical	51.1% (48.8%)	51.9% (48.1%)	53.0% (47.0%)	52.5% (47.5%)	42.3% (57.7%)
Fire-Related	60.9% (39.1%)	61.0% (39.0%)	63.7% (36.3%)	61.5% (38.5%)	37.2% (62.8%)
Burns - Non-Fire Thermal	52.2% (47.8%)	46.1% (53.9%)	49.9% (50.1%)	38.3% (61.7%)	36.7% (63.3%)
Burns – Scalding	37.7% (62.3%)	41.2% (58.8%)	41.7% (58.3%)	41.9% (58.1%)	33.5% (66.5%)
Burns – Other/ Electric Shock	61.3% (38.7%)	69.2% (30.8%)	67.5% (32.5%)	73.6% (26.4%)	70.9% (29.1%)
Allergy/Dermatitis/ Other Skin Issues	48.9% (51.1%)	44.1% (55.9%)	42.1% (57.9%)	49.0% (51.0%)	40.3% (59.7%)
Anoxia/Aspiration/ Submersion	41.0% (58.9%)	53.9% (46.1%)	53.0% (47.0%)	50.1% (49.9%)	76.8% (23.2%)

Ingestion	56.0% (43.9%)	53.2% (46.8%)	54.3% (45.7%)	74.0% (26.0%)	25.1% (74.9%)
Poisoning	43.1% (56.6%)	41.0% (59.0%)	42.4% (57.6%)	36.5% (63.5%)	48.9% (51.1%)
Riding Consumer Products	**73.5% (26.4%)**	**70.1% (29.9%)**	**67.5% (32.5%)**	**73.7% (26.3%)**	**79.0% (21.0%)**
Animal Riding	31.3% (68.7%)	30.7% (69.3%)	28.1% (71.9%)	38.2% (61.8%)	– –
Bicycles and Accessories	77.3% (22.7%)	72.9% (27.1%)	70.0% (30.0%)	78.8% (21.2%)	83.1% (16.9%)
Golf Carts	54.3% (45.7%)	57.7% (42.3%)	54.0% (46.0%)	56.9% (43.1%)	74.2% (25.8%)
Micromobility	70.3% (29.7%)	64.9% (35.1%)	62.8% (37.2%)	73.1% (26.9%)	63.1% (36.9%)
OHVs	70.4% (29.6%)	77.6% (22.4%)	76.8% (23.2%)	81.1% (18.9%)	55.2% (44.8%)
Other Riding Products	80.3% (19.6%)	77.6% (22.4%)	77.0% (23.0%)	77.0% (23.0%)	82.2% (17.8%)
Non-Riding Product Mechanical	**52.2% (47.7%)**	**40.6% (59.4%)**	**45.1% (54.9%)**	**40.7% (59.3%)**	**33.7% (66.3%)**
Cut/Pierce	63.0% (37.0%)	65.4% (34.6%)	65.4% (34.6%)	67.6% (32.4%)	56.0% (44.0%)
Falls	45.1% (54.8%)	38.0% (62.0%)	41.6% (58.4%)	38.7% (61.3%)	33.1% (66.9%)
Foreign Body	63.4% (36.5%)	59.9% (40.1%)	66.5% (33.5%)	52.6% (47.4%)	34.0% (66.0%)
Overexertion	54.0% (46.0%)	47.1% (52.9%)	50.2% (49.8%)	45.1% (54.9%)	37.0% (63.0%)
Struck Against/By	57.2% (42.8%)	46.7% (53.3%)	48.8% (51.2%)	46.9% (53.1%)	37.9% (62.1%)
Other/Unknown	56.1% (43.8%)	51.0% (49.0%)	57.3% (42.7%)	48.2% (51.8%)	42.7% (57.3%)

Source: U.S. Consumer Product Safety Commission: NEISS. Percentages are rounded to the nearest tenth of a percent and therefore may not add up to the total. Total Percentages Include Patients with Other or Unknown Sex. There are 100 cases out of 331,752 which are patients with Other or Unknown Sex, which is 0.03% of all cases for all ages 25 years and older.

Table 6 presents another way to observe differences between male and female groups by standardizing the populations of males and females by calculating annual estimates per 100,000 people in the U.S. population for each sex, and then comparing those per 100,000 estimates with the same injury rate ratios described above Table 4.

Table 6 shows comparisons of the estimated annual average numbers of ED-treated **injury rates per 100,000 people in the U.S. population for males and females** along with injury rate ratios comparing the per 100,000 estimate for males with respect to the per 100,000 estimate for females for each category. Injury rate ratios greater than 1.0 in Table 6 indicate that a higher percentage of males in that U.S. population are ED-treated than the percentage of females in that U.S. population, for a particular product/hazard category. Conversely, injury rate ratios less than 1.0 indicate that a higher percentage of females in that U.S. population are ED-treated than the percentage of males in that U.S. population, for a particular product/hazard category. Injury rate ratios equal to 1.0 indicate that the percentage of males and females are ED-treated at the same rate.

For instance, an injury rate ratio value of 2.0 in Table 6 would mean that males are ED-treated at 2.0 times, 200 percent times, or twice as frequently as females for the given category and age group. Similarly, an injury rate ratio value of 0.4 in Table 6 would means that males are ED-treated at 0.4 times, or 40 percent as frequently as females.

For injury rate ratios less 1.0 in Table 6, to calculate the injury rate ratio of females with respect to males, or in other words, to find out how much higher is the rate that females are

being ED-treated than males in the U.S. population, simply divide the females per 100,000 estimate over the males per 100,000 estimate for each category and age group.

For example, in the Burns – Scalding category, the injury rate ratio for all senior injuries, which is comparing males with respect to females, is 0.9, so males are ED-treated about 0.9 times or 90 percent as frequently as females in the U.S. population. About 10.0 males per 100,000 males in the senior U.S. population and 11.6 females per 100,000 females in the senior U.S. population are ED-treated annually as a result of a scalding burn injury related to a consumer product. Therefore, females are ED-treated about 1.1 (11.1 / 10.0 = 1.11) times, or 111 percent as frequently as males among seniors in the U.S. population for injuries involving Burns – Scalding injuries. Note that in Table 6, the per 100,000 estimates are rounded to the first decimal place but injury rate ratios are computed without using the rounded per 100,000 estimates presented in the table. Therefore, some injury rate ratio values do not appear accurate due to unrounded estimates that are presented in the table.

Senior females are ED-treated 1.1 (5,736.0 / 5,012.3 = 1.14) times as frequently as senior males in the U.S. population. Among all ED-treated injuries to adults, females and males are ED-treated at about the same rate, having an injury rate ratio equal to 1.0.

Injury rate ratios of per 100,000 estimates comparing senior males with respect to senior females are smaller than 1.0 in only four categories: Animal Riding (injury rate ratio of 0.5), Falls (injury rate ratio of 0.8), Burns – Scalding (injury rate ratio of 0.9), and Poisoning (injury rate ratio of 0.9), which means senior females are ED-treated more frequently than senior males in these categories, after standardizing for population. Injury rate ratios of per 100,000 estimates of senior females compared to senior males are equal to 1.0 in two categories: Burns - Non-Fire Thermal and Allergy/Dermatitis/Other Skin Issues. In every other category, for all seniors, the injury rate ratio value is greater than 1.0, which means senior males are ED-treated more frequently than senior females in the U.S. population in those categories. In all of the categories not mentioned above, senior males are ED-treated more frequently than senior females.

Among the Falls category, females are ED-treated at a higher rate than males in all three senior age groups, seniors ages 65 to 74 years (2,733.5 females and 2,183.3 males per 100,000 population, respectively), seniors ages 75 to 84 years old (5,477.8 females and 4,356.9 males, per 100,000 population respectively), seniors ages 85 years and older (11,226.0 females and 10,123.7 males per 100,000 population, respectively), as well as the adult age group (1,067.6 females and 870.3 males per 100,000 population, respectively).

Senior males are about 4.3 times more likely to be ED-treated than senior females for injuries involving OHVs and Other Riding Products. Among seniors ages 75 to 84 years, males are more than four and a half times (injury rate ratio of 4.7) more likely to be ED-treated for injuries involving Bicycles than their female counterparts, while among seniors ages 65 to 74 years, males are over two and a half times (injury rate ratio of 2.6) as likely as their female counterparts to be ED-treated for injuries involving Bicycles.

Table 6: Injury Rate (per 100,000 Population) for Age Groups by Sex and Injury Rate Ratio Comparisons of Males With Respect To Females by Product/Hazard, 2022-2023; (Male) (Female)

Product/Hazard	Adults Ages 25 to 64 Years	Seniors Ages 65 Years and Older	65 to 74 Years	75 to 84 Years	85 Years and Older
All Injuries, Annual Average Per 100,000 Male (Female)	**1.2 (2,745.5) (2,337.3)**	**0.9 (5,012.3) (5,736.0)**	**1.0 (3,646.8) (3,767.1)**	**0.9 (5,875.5) (6,537.7)**	**0.9 (11,504.3) (12,220.8)**
Non-Mechanical	**1.0 (111.6) (107.6)**	**1.3 (85.9) (64.8)**	**1.3 (88.9) (70.1)**	**1.4 (84.9) (60.9)**	**1.3 (68.9) (51.6)**
Fire-Related	1.5 (26.3) (17.0)	1.9 (26.0) (13.6)	2.0 (26.6) (13.5)	2.0 (28.4) (14.1)	– (–) (–)
Burns - Non-Fire Thermal	1.1 (13.6) (12.6)	1.0 (9.0) (8.6)	1.1 (10.9) (9.7)	– (–) (–)	– (–) (–)
Burns – Scalding	0.6 (11.9) (20.0)	0.9 (10.0) (11.6)	0.8 (10.6) (13.2)	0.9 (9.6) (10.5)	– (–) (–)
Burns – Other/ Electric Shock	1.6 (18.7) (11.9)	2.8 (12.9) (4.7)	2.3 (14.3) (6.1)	3.5 (11.6) (3.3)	– (–) (–)
Allergy/ Dermatitis/ Other Skin Issues	0.9 (20.0) (21.1)	1.0 (10.0) (10.4)	0.8 (8.8) (10.8)	1.2 (11.7) (9.7)	– () (–)
Anoxia/ Aspiration/ Submersion	0.7 (5.4) (7.8)	1.4 (6.7) (4.7)	1.3 (6.6) (5.2)	(–) (–)	– (–) (–)
Ingestion	1.3 (6.9) (5.4)	1.4 (4.0) (2.9)	– (4.0) (–)	– (–) (–)	– (–) (–)
Poisoning	0.8 (8.8) (11.7)	0.9 (7.2) (8.4)	0.8 (7.1) (8.6)	– (–) (9.6)	– (–) (–)
Riding Consumer Products	**2.8 (360.0) (130.7)**	**2.9 (239.8) (83.5)**	**2.3 (243.1) (104.2)**	**3.5 (246.9) (69.8)**	**6.9 (192.7) (28.0)**
Animal Riding	0.5 (7.4) (16.5)	0.5 (5.0) (9.2)	0.4 (5.6) (12.7)	– (–) (6.9)	– –
Bicycles and Accessories	3.4 (172.1) (51.0)	3.3 (143.0) (43.2)	2.6 (154.1) (58.9)	4.7 (137.0) (29.2)	– (–) (–)
Golf Carts	1.2 (5.5) (4.6)	– (–) (–)	– (–) (–)	– (–) (–)	– (–) (–)
Micromobility	2.3 (50.2) (21.4)	2.3 (17.8) (7.9)	1.9 (20.7) (10.9)	– (13.6) (–)	– (–) (–)
OHVs	2.3 (36.3) (15.4)	4.3 (13.9) (3.3)	3.7 (13.2) (3.6)	– (18.0) (–)	– (–) (–)
Other Riding Products	4.1 (88.5) (21.8)	4.3 (44.0) (10.3)	3.8 (39.4) (10.5)	4.2 (47.6) (11.3)	– (63.5) (–)
Non-Riding Product Mechanical	**1.1 (2,273.8) (2,098.9)**	**0.8 (4,686.6) (5,587.6)**	**0.9 (3,314.8) (3,592.9)**	**0.9 (5,543.8) (6,407.0)**	**0.9 (11,242.7) (12,141.2)**
Cut/Pierce	1.7 (434.4) (257.3)	2.3 (321.4) (138.7)	2.1 (338.7) (159.7)	2.6 (317.6) (120.4)	2.3 (215.1) (92.7)
Falls	0.8 (870.3) (1,067.6)	0.8 (3,539.4) (4,699.3)	0.8 (2,183.3) (2,733.5)	0.8 (4,356.9) (5,477.8)	0.9 (10,123.7) (11,226.0)
Foreign Body	1.7 (50.0) (29.0)	1.8 (24.6) (13.4)	2.2 (29.3) (13.2)	1.4 (17.4) (12.4)	– (–) (16.9)
Overexertion	1.2 (476.2) (409.7)	1.1 (459.8) (421.5)	1.1 (448.2) (396.6)	1.0 (490.3) (472.5)	1.1 (435.2) (406.8)
Struck Against/By	1.3 (427.6) (323.1)	1.1 (319.2) (297.2)	1.1 (297.4) (277.9)	1.1 (337.5) (303.4)	1.1 (406.8) (365.0)
Other/Unknown	1.3 (15.4) (12.2)	1.3 (22.2) (17.4)	1.5 (17.9) (11.9)	1.2 (24.0) (20.5)	– (–) (33.8)

Source: U.S. Consumer Product Safety Commission: NEISS. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Per 100,000 estimates are rounded to the nearest tenth and therefore may not add up to the total.

Table 7 shows the estimated total number of ED-treated senior injuries for each category **by year of incident**. There are an estimated 4,600 poisoning injuries over the two years, and of those, 59 percent (2,700 injuries) occurred in 2023. Not shown in Table 7, other than the Poisoning category, in the rest of the categories the difference between estimates from 2022 and 2023 differ by no more than 8 percent (i.e., at most a 54-percent to 46-percent split).

Table 7: Estimated Total Number of ED-Treated Injuries to Seniors Ages 65 Years and Older by Product/Hazard and Year, 2022-2023 (Percent of the Estimated Number of ED-Treated Injuries to Seniors Ages 65 Years and Older)

Product/Hazard	2022	2023	Total
Annual Total Estimated Number of Injuries (Percent of the Total Estimate)	**1,573,600 (100.0%)**	**1,603,600 (100.0%)**	**3,177,300 (100.0%)**
Non-Mechanical	**21,100 (1.3%)**	**22,600 (1.4%)**	**43,600 (1.4%)**
Fire-Related	5,400 (0.3%)	5,800 (0.4%)	11,300 (0.4%)
Burns - Non-Fire Thermal	2,400 (0.2%)	2,800 (0.2%)	5,100 (0.2%)
Burns – Scalding	3,100 (0.2%)	3,300 (0.2%)	6,400 (0.2%)
Burns – Other/ Electric Shock	2,500 (0.2%)	2,400 (0.2%)	4,900 (0.2%)
Allergy/Dermatitis/ Other Skin Issues	3,100 (0.2%)	2,900 (0.2%)	6,000 (0.2%)
Anoxia/Aspiration/ Submersion	1,800 (0.1%)	1,500 (0.1%)	3,300 (0.1%)
Ingestion	900 (0.1%)	1,100 (0.1%)	2,000 (0.1%)
Poisoning	1,900 (0.1%)	2,700 (0.2%)	4,600 (0.1%)
Riding Consumer Products	**46,100 (2.9%)**	**44,100 (2.8%)**	**90,200 (2.8%)**
Animal Riding	2,100 (0.1%)	2,200 (0.1%)	4,300 (0.1%)
Bicycles and Accessories	27,200 (1.7%)	24,400 (1.5%)	51,700 (1.6%)
Golf Carts	3,600 (0.2%)	3,700 (0.2%)	7,300 (0.2%)
Micromobility	3,500 (0.2%)	3,800 (0.2%)	7,200 (0.2%)
OHVs	2,100 (0.1%)	2,600 (0.2%)	4,700 (0.1%)
Other Riding Products	7,400 (0.5%)	7,500 (0.5%)	15,000 (0.5%)
Non-Riding Product Mechanical	**1,506,400 (95.7%)**	**1,537,000 (95.8%)**	**3,043,400 (95.8%)**
Cut/Pierce	64,500 (4.1%)	65,100 (4.1%)	129,600 (4.1%)
Falls	1,219,100 (77.5%)	1,234,400 (77.0%)	2,453,500 (77.2%)
Foreign Body	5,200 (0.3%)	5,600 (0.3%)	10,800 (0.3%)
Overexertion	121,100 (7.7%)	136,400 (8.5%)	257,600 (8.1%)
Struck Against/By	90,700 (5.8%)	89,600 (5.6%)	180,300 (5.7%)
Other/Unknown	5,700 (0.4%)	5,800 (0.4%)	11,500 (0.4%)

Source: U.S. Consumer Product Safety Commission: NEISS. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Estimates and column percentages are rounded and therefore may not add up to the totals.

Table 8 presents the percent of the estimated annual average number of ED-treated injuries to seniors (i.e., ages 65 and older), and the percent of injuries to adults (i.e., ages 25-64) in parentheses, for each age group and category **by severity of injury**. Categories where percentages are higher in serious injury dispositions—that is, treated and transferred, hospitalization, and fatality categories (disp = 2, 4, and 8, respectively)—suggest that the age group with the higher percentage in these columns experiences more severe injuries than the other age group in that particular injury category.

For example, of all senior annual average ED-treated injuries associated with Falls, 31.7 percent resulted in a hospitalization, whereas of all adult Falls injuries 13.4 percent resulted in a hospitalization—about 2.4 times as high (31.7 / 13.4 = 2.37) for seniors compared to adults.

Injuries to seniors involving consumer products appear to result in more serious injuries than injuries to adults in just about every category of injury, as the percentage of senior injuries resulting in a hospitalization is higher than the percentage of adult injuries resulting in a hospitalization for every category except the Ingestion category.

The percent of Overexertion injuries resulting in a hospitalization to seniors (17.0 percent) is nearly four times higher than adults (4.5 percent), and the percent of Allergy/Dermatitis/Other Skin Issues injuries resulting in a hospitalization to seniors (9.4 percent) is more than five times higher than adults (1.8 percent).

Table 8: Percent of the Annual Average Estimated Number of ED-Treated Injuries to Seniors Ages 65 Years and Older by Product/Hazard and Disposition, 2022-2023 (Percent of the Annual Average Estimated Number of ED-Treated Injuries to Adults Ages 25 to 64 Years)

Product/Hazard	Treated & Released	Treated & Transferred	Hospitalized	Fatality	Other
Percent of All Injuries	**66.7%** (85.8%)	**2.2%** (1.2%)	**27.6%** (8.6%)	**0.2%** (0.1%)	**3.3%** (4.3%)
Non-Mechanical	**70.5%** (80.8%)	**4.3%** (3.4%)	**20.3%** (10.0%)	**0.6%** (0.4%)	**4.3%** (5.4%)
Fire-Related	52.0% (63.6%)	9.2% (9.0%)	33.3% (22.9%)	1.1% (0.9%)	4.4% (3.6%)
Burns - Non-Fire Thermal	77.5% (83.5%)	3.1% (2.6%)	17.0% (8.3%)	0.0% (0.0%)	2.4% (5.5%)
Burns – Scalding	80.7% (83.1%)	4.4% (4.0%)	12.1% (7.7%)	0.0% (0.0%)	2.7% (5.3%)
Burns – Other/ Electric Shock	81.7% (85.6%)	2.3% (1.5%)	12.2% (4.9%)	0.6% (0.0%)	3.2% (8.0%)
Allergy/Dermatitis/ Other Skin Issues	86.8% (94.6%)	0.7% (0.5%)	9.4% (1.8%)	0.0% (0.0%)	3.1% (3.1%)
Anoxia/Aspiration/ Submersion	57.3% (75.9%)	2.4% (2.6%)	32.0% (11.6%)	3.2% (3.4%)	5.1% (6.5%)
Ingestion	74.9% (75.2%)	2.3% (2.7%)	13.6% (15.1%)	0.0% (0.0%)	9.2% (6.9%)
Poisoning	68.2% (82.3%)	2.3% (0.9%)	20.9% (8.9%)	0.0% (0.0%)	8.6% (7.9%)
Riding Consumer Products	**68.6%** (78.7%)	**2.8%** (1.9%)	**25.3%** (14.3%)	**0.4%** (0.2%)	**2.8%** (5.0%)
Animal Riding	65.4% (76.7%)	6.0% (3.6%)	26.6% (16.2%)	0.0% (0.0%)	2.0% (3.5%)
Bicycles and Accessories	67.8% (78.7%)	2.1% (1.3%)	26.8% (14.1%)	0.3% (0.2%)	3.1% (5.6%)

Golf Carts	73.0% (79.6%)	1.7% (1.8%)	23.0% (16.6%)	1.1% (0.4%)	1.2% (1.6%)
Micromobility	68.8% (80.2%)	3.0% (1.1%)	23.1% (13.9%)	0.6% (0.1%)	4.6% (4.7%)
OHVs	58.8% (72.9%)	6.5% (4.1%)	32.1% (19.4%)	0.6% (0.2%)	2.0% (3.4%)
Other Riding Products	73.1% (80.6%)	3.6% (2.1%)	20.1% (11.8%)	0.6% (0.1%)	2.6% (5.4%)
Non-Riding Product Mechanical	**66.6% (86.8%)**	**2.1% (1.0%)**	**27.8% (7.9%)**	**0.2% (0.1%)**	**3.3% (4.2%)**
Cut/Pierce	93.6% (92.9%)	1.1% (0.7%)	3.5% (2.6%)	0.0% (0.0%)	1.8% (3.8%)
Falls	62.3% (80.6%)	2.4% (1.4%)	31.7% (13.4%)	0.2% (0.1%)	3.5% (4.5%)
Foreign Body	91.0% (90.2%)	0.9% (1.2%)	3.7% (3.4%)	0.0% (0.0%)	4.4% (5.2%)
Overexertion	79.0% (91.8%)	1.0% (0.4%)	17.0% (4.5%)	0.2% (0.0%)	2.8% (3.3%)
Struck Against/By	88.1% (91.2%)	0.9% (0.8%)	8.5% (3.3%)	0.1% (0.0%)	2.4% (4.7%)
Other/Unknown	59.5% (89.0%)	1.1% (0.5%)	33.0% (6.4%)	1.2% (0.5%)	5.3% (3.5%)

Source: U.S. Consumer Product Safety Commission: NEISS. Percentages are rounded to the nearest tenth of a percent and therefore may not add up to the total. The Other dispositions include “held for observation”, “left without being seen”, and “unknown or not stated.”

Table 9 presents the percent of the estimated annual average number of ED-treated injuries to seniors, and the percent of injuries to adults in parentheses, for each age group and category **by primary diagnosis of injury**. In most categories, percentages of primary diagnosis of injuries do not differ much between adults and seniors because the nature of injuries suffered in most categories are likely to be roughly the same types of injuries regardless of age.

In the Falls category, the percentages of Falls injuries diagnosed as fractures (25.5 percent of senior injuries; and 20.6 percent of adult injuries) and internal organ injuries (22.7 percent of senior injuries; and 14.9 percent of adult injuries) are higher for seniors than for adults, while the percentages of Falls injuries diagnosed as sprains or strains (2.6 percent of senior injuries; and 9.7 percent of adult injuries) are higher for adults than for seniors. Among each Riding Consumer Products category, there are higher percentages of sprain and strain injuries to adults than to seniors, but other than that, the percentage comparisons of the other diagnoses among seniors and adults in each Riding Consumer Products category are not drastically different.

Among all Fire-Related injuries, 35.1 percent of senior and 22.9 percent of adult injuries are diagnosed as anoxia injuries (i.e., diag1 = 65), and 54.1 percent of senior and 44.6 percent of adult injuries are diagnosed as thermal burn injuries (i.e., diag1 = 51). All of the categories in the Non-Mechanical tier, other than the Fire-Related category, were placed in their respective categories based on how the cases were coded in the NEISS primary diagnosis variable (i.e., diag1). The primary diagnoses for each of these non-mechanical categories are listed in Table 38 in Appendix B.

Table 9: Percent of the Annual Average Estimated Number of ED-Treated Injuries to Seniors Ages 65 Years and Older by Product/Hazard and Diagnosis, 2022-2023 (Percent of the Annual Average Estimated Number of ED-Treated Injuries to Adults Ages 25 to 64 Years)

Product/Hazard	Contusions, Abrasions	Fractures	Internal Organ	Lacerations	Sprains, Strains	Other
Percent of All Injuries	**12.9%** (11.1%)	**22.2%** (14.5%)	**18.8%** (8.3%)	**10.9%** (16.8%)	**4.3%** (11.2%)	**31.1%** (38.1%)
Non-Mechanical	**1.5%** (0.9%)	**0.5%** (0.3%)	**0.6%** (0.1%)	**0.3%** (0.4%)	**0.1%** (0.1%)	**97.0%** (98.1%)
Fire-Related	2.2% (0.8%)	1.5% (1.3%)	1.9% (0.3%)	0.6% (1.4%)	0.1% (0.2%)	93.8% (95.9%)
Burns - Non-Fire Thermal	0.0% (0.2%)	0.0% (0.0%)	0.0% (0.3%)	0.2% (0.0%)	0.0% (0.3%)	99.8% (99.1%)
Burns – Scalding	1.6% (0.0%)	0.0% (0.2%)	0.0% (0.0%)	0.0% (0.0%)	0.0% (0.0%)	98.4% (99.7%)
Burns – Other/ Electric Shock	3.8% (4.4%)	0.0% (0.1%)	0.8% (0.2%)	0.0% (0.4%)	0.8% (0.2%)	94.6% (94.7%)
Allergy/Dermatitis/ Other Skin Issues	1.5% (0.5%)	0.0% (0.0%)	0.0% (0.0%)	0.7% (0.1%)	0.0% (0.0%)	97.8% (99.4%)
Anoxia/Aspiration/ Submersion	0.0% (0.3%)	1.0% (0.0%)	0.8% (0.0%)	0.0% (0.0%)	0.0% (0.0%)	98.2% (99.7%)
Ingestion	0.0% (0.0%)	0.0% (0.0%)	0.0% (0.0%)	0.0% (0.0%)	0.0% (0.0%)	100.0% (100.0%)
Poisoning	1.0% (0.3%)	0.0% (0.0%)	0.0% (0.0%)	0.0% (0.0%)	0.0% (0.2%)	99.0% (99.4%)
Riding Consumer Products	**14.8%** (16.2%)	**30.5%** (28.9%)	**17.0%** (12.4%)	**9.2%** (9.9%)	**4.5%** (7.7%)	**24.1%** (24.9%)
Animal Riding	12.9% (14.5%)	36.6% (32.8%)	22.2% (15.7%)	6.1% (4.2%)	3.6% (8.2%)	18.7% (24.6%)
Bicycles and Accessories	15.9% (16.7%)	32.1% (26.5%)	16.2% (12.2%)	8.4% (10.5%)	3.4% (6.8%)	24.0% (27.3%)
Golf Carts	12.7% (18.7%)	26.0% (24.0%)	19.9% (22.7%)	12.2% (12.5%)	6.4% (7.7%)	22.8% (14.5%)
Micromobility	19.8% (17.5%)	31.9% (30.7%)	19.0% (13.2%)	7.6% (10.6%)	5.0% (6.9%)	16.8% (21.1%)
OHVs	11.1% (13.8%)	36.0% (32.2%)	18.9% (15.1%)	11.4% (10.5%)	4.7% (8.0%)	17.9% (20.5%)
Other Riding Products	11.5% (15.6%)	23.0% (30.4%)	15.2% (9.4%)	11.3% (9.2%)	7.2% (10.0%)	31.9% (25.5%)
Non-Riding Product Mechanical	**13.0%** (11.0%)	**22.3%** (13.6%)	**19.1%** (8.3%)	**11.1%** (18.3%)	**4.3%** (12.2%)	**30.3%** (36.6%)
Cut/Pierce	1.2% (0.9%)	3.6% (2.2%)	0.3% (0.2%)	72.8% (75.2%)	0.0% (0.1%)	22.1% (21.5%)
Falls	14.2% (14.7%)	25.5% (20.6%)	22.7% (14.9%)	8.5% (8.4%)	2.6% (9.7%)	26.5% (31.7%)
Foreign Body	7.2% (6.4%)	0.0% (0.2%)	0.3% (0.2%)	0.9% (1.0%)	0.0% (0.0%)	91.6% (92.2%)
Overexertion	0.9% (0.8%)	9.2% (6.7%)	0.5% (0.2%)	0.2% (0.1%)	24.5% (35.7%)	64.8% (56.5%)
Struck Against/By	21.9% (23.6%)	12.4% (16.2%)	12.3% (9.1%)	18.4% (15.5%)	2.3% (3.6%)	32.6% (31.9%)
Other/Unknown	7.0% (5.1%)	2.2% (1.1%)	7.2% (3.6%)	3.9% (2.3%)	0.1% (0.0%)	79.6% (87.9%)

Source: U.S. Consumer Product Safety Commission: NEISS. Percentages are rounded to the nearest tenth of a percent and therefore may not add up to the total.

Table 10 presents the percent of the estimated annual average number of ED-treated injuries to seniors, and the percent of injuries to adults in parentheses, for each age group and category **by primary body part injured**. In most categories, percentages of the primary body part injured do not differ much between adults and seniors, because the nature of injuries suffered in most categories are likely to be roughly the same types of injuries regardless of age.

In the Falls category, the percentages of Falls injuries which involve head or neck injuries (42.1 percent of senior injuries; and 32.1 percent of adult injuries) are higher for seniors than for adults, while the percentages of Falls injuries involving leg or feet injuries (11.3 percent of senior injuries; and 22.6 percent of adult injuries) are higher for adults than for seniors.

In the Overexertion category, the percentages of Overexertion injuries which involve torso and shoulder injuries (58.7 percent of senior injuries; and 49.8 percent of adult injuries) and all parts of the body injuries (5.2 percent of senior injuries; and 2.3 percent of adult injuries) are higher for seniors than for adults, while the percentages of Overexertion injuries which involve leg or feet injuries (23.2 percent of senior injuries; and 35.7 percent of adult injuries) are higher for adults than for seniors.

Table 10: Percent of the Annual Average Estimated Number of ED-Treated Injuries to Seniors Ages 65 Years and Older by Product/Hazard and Body Part, 2022-2023 (Percent of the Annual Average Estimated Number of ED-Treated Injuries to Adults Ages 25 to 64 Years)

Product/Hazard	Arm, Hand	Head, Neck	Leg, Feet	Torso, Shoulder	All Parts of the Body (50% or more)	Other
Percent of All Injuries	**13.1%** (24.1%)	**36.0%** (22.9%)	**14.3%** (24.5%)	**28.7%** (23.9%)	**2.3%** (2.4%)	**5.5%** (2.1%)
Non-Mechanical	**18.0%** (22.2%)	**19.5%** (19.9%)	**16.5%** (13.4%)	**10.1%** (11.1%)	**29.3%** (25.6%)	**6.7%** (7.8%)
Fire-Related	13.4% (24.1%)	26.0% (22.0%)	10.5% (10.9%)	10.4% (9.2%)	37.0% (32.3%)	2.6% (1.5%)
Burns - Non-Fire Thermal	50.9% (60.1%)	5.8% (7.6%)	23.8% (19.4%)	18.1% (12.1%)	0.8% (0.2%)	0.8% (0.7%)
Burns – Scalding	30.1% (35.6%)	7.6% (9.5%)	47.0% (36.3%)	13.6% (17.7%)	0.0% (0.3%)	1.6% (0.6%)
Burns – Other/ Electric Shock	14.3% (11.2%)	61.8% (59.3%)	9.6% (6.8%)	3.2% (4.5%)	11.0% (17.0%)	0.0% (1.3%)
Allergy/Dermatitis/ Other Skin Issues	18.2% (18.4%)	26.0% (25.1%)	20.7% (14.3%)	20.5% (23.6%)	11.5% (14.6%)	3.1% (4.0%)
Anoxia/Aspiration/ Submersion	0.0% (0.4%)	2.9% (2.0%)	1.2% (0.0%)	0.8% (1.5%)	85.7% (83.7%)	9.4% (12.4%)
Ingestion	0.0% (0.0%)	0.0% (0.0%)	0.0% (0.0%)	0.0% (0.1%)	2.2% (0.4%)	97.8% (99.5%)
Poisoning	0.0% (0.7%)	2.0% (1.7%)	0.8% (0.0%)	0.2% (1.0%)	96.3% (96.2%)	0.8% (0.4%)
Riding Consumer Products	**14.4%** (18.0%)	**28.9%** (28.0%)	**18.4%** (22.0%)	**35.3%** (30.1%)	**2.0%** (1.0%)	**1.0%** (0.9%)
Animal Riding	7.6% (10.2%)	29.6% (27.9%)	10.5% (14.4%)	51.6% (46.3%)	0.8% (0.4%)	0.0% (0.9%)
Bicycles and Accessories	15.0% (17.4%)	28.3% (28.1%)	16.9% (21.0%)	36.4% (30.9%)	2.4% (1.4%)	1.0% (1.1%)
Golf Carts	13.9% (15.0%)	34.5% (40.4%)	24.9% (23.0%)	24.0% (20.6%)	1.6% (0.4%)	1.0% (0.6%)
Micromobility	15.7% (19.6%)	35.6% (33.3%)	19.7% (22.5%)	26.6% (23.6%)	1.3% (0.4%)	1.0% (0.6%)
OHVs	15.8% (15.5%)	27.3% (33.5%)	17.8% (15.9%)	36.5% (33.6%)	1.4% (0.6%)	1.2% (0.9%)
Other Riding Products	13.4% (21.3%)	25.3% (20.7%)	22.1% (28.1%)	35.8% (28.3%)	1.9% (0.8%)	1.5% (0.8%)
Non-Riding Product Mechanical	**13.0%** (24.9%)	**36.5%** (22.5%)	**14.1%** (25.3%)	**28.8%** (23.9%)	**2.0%** (1.4%)	**5.7%** (2.0%)

Cut/Pierce	75.5% (77.1%)	3.2% (3.9%)	20.2% (16.7%)	0.8% (2.0%)	0.3% (0.2%)	0.0% (0.1%)
Falls	9.4% (12.5%)	42.1% (32.1%)	11.3% (22.6%)	28.7% (26.9%)	1.7% (1.8%)	6.8% (4.2%)
Foreign Body	37.0% (23.4%)	49.3% (58.5%)	4.0% (4.4%)	9.3% (13.3%)	0.4% (0.2%)	0.0% (0.3%)
Overexertion	7.6% (7.9%)	4.3% (3.8%)	23.2% (35.7%)	58.7% (49.8%)	5.2% (2.3%)	1.0% (0.3%)
Struck Against/By	23.0% (29.8%)	29.8% (31.3%)	37.0% (30.8%)	9.2% (7.4%)	0.6% (0.4%)	0.4% (0.3%)
Other/Unknown	5.2% (4.4%)	30.9% (68.0%)	11.1% (7.2%)	12.7% (8.9%)	22.1% (6.8%)	17.9% (4.6%)

Source: U.S. Consumer Product Safety Commission: NEISS. Percentages are rounded to the nearest tenth of a percent and therefore may not add up to the total.

Table 11 presents the percent of the estimated annual average number of ED-treated injuries to seniors, and the percent of injuries to adults in parentheses, for each age group and category **by location of injury**. The last column, consisting of the proportion of cases in each category occurring at unspecified locations, should be considered when attempting to draw conclusions based on the other percentages for each category in the table.

Incidents occurring at home (i.e., loc = 1), and mobile or manufactured home locations (i.e., loc = 6), are in the Home Locations column. The Other Known Location cases include incidents occurring at farms or ranches (i.e., loc = 2), industrial locations (i.e., loc = 7), and school or daycare locations (i.e., loc = 8).

Incidents that occur at adult care and nursing home facilities are coded in the “Other Public Property” location (i.e., loc = 5). Case narratives which contain “nursi”, that are also coded other public property (i.e., loc = 5), should identify the minimum proportion of other public property cases which occurred at nursing home facilities. The following are the percentage of all cases coded as Other Public Property in which case narratives include “nursi”, and are presumed to be the minimum proportion of cases occurring in nursing home facilities:

- Non-Mechanical hazard tier: 16.9 percent of senior injuries and 0.9 percent of adult injuries;
- Riding Consumer Products tier: 0.9 percent of senior injuries and 0.0 percent of adult injuries;
- Non-Rider Mechanical hazard tier: 35.1 percent of senior injuries and 4.9 percent of adult injuries; and
- Falls category: 37.1 percent of senior injuries and 7.2 percent of adult injuries.

Aside from understanding that a decent proportion of injuries are at unspecified or unknown locations, note that larger proportions of cases occurring at other public property likely occurred at nursing homes in the senior age group compared to the proportion of cases in the adult age group.

In every Riding Consumer Products category except for OHVs, there are higher proportions of adults injured in street or highway locations compared to seniors. This aligns with a higher proportion of adults than seniors involved in motor-vehicle incidents as seen in Table 42 in Appendix B.

Table 11: Percent of the Annual Average Estimated Number of ED-Treated Injuries to Seniors Ages 65 Years and Older by Product/Hazard and Location, 2022-2023 (Percent of the Annual Average Estimated Number of ED-Treated Injuries to Adults Ages 25 to 64 Years)

Product/Hazard	Home Locations	Other Public Property	Place of Recreation or Sports	Street or Highway	Other Known Location	Unspecified Location
Percent of All Injuries	**53.5%** (37.9%)	**16.5%** (8.1%)	**3.1%** (9.2%)	**0.9%** (3.3%)	**0.1%** (0.2%)	**25.9%** (41.2%)
Non-Mechanical	**64.2%** (51.6%)	**4.6%** (6.8%)	**2.5%** (2.3%)	**0.2%** (0.4%)	**0.0%** (0.2%)	**28.6%** (38.8%)
Fire-Related	82.2% (72.2%)	2.6% (4.6%)	0.8% (0.9%)	0.2% (0.3%)	0.0% (0.0%)	14.2% (21.9%)
Burns - Non-Fire Thermal	63.2% (49.1%)	1.8% (2.8%)	0.2% (0.9%)	0.0% (0.1%)	0.0% (0.0%)	34.9% (47.1%)
Burns – Scalding	51.6% (49.3%)	4.9% (4.1%)	0.6% (0.9%)	0.0% (0.3%)	0.0% (0.0%)	42.9% (45.4%)
Burns – Other/ Electric Shock	61.3% (40.5%)	2.1% (5.8%)	2.2% (2.5%)	0.0% (0.9%)	0.0% (0.9%)	34.5% (49.5%)
Allergy/Dermatitis/ Other Skin Issues	50.0% (46.0%)	6.0% (8.1%)	6.5% (4.3%)	0.0% (0.4%)	0.0% (0.1%)	37.6% (41.1%)
Anoxia/Aspiration/ Submersion	76.9% (63.9%)	3.4% (4.6%)	11.2% (9.9%)	0.0% (0.1%)	0.0% (0.3%)	8.5% (21.2%)
Ingestion	41.3% (22.0%)	12.6% (24.2%)	1.8% (0.3%)	0.0% (0.3%)	0.0% (0.0%)	44.3% (53.2%)
Poisoning	61.5% (52.3%)	10.5% (10.7%)	0.8% (1.1%)	0.8% (0.7%)	0.0% (0.3%)	26.4% (35.1%)
Riding Consumer Products	**14.0%** (5.5%)	**8.9%** (8.9%)	**9.0%** (10.4%)	**24.3%** (30.8%)	**0.7%** (0.3%)	**43.1%** (44.1%)
Animal Riding	12.7% (11.5%)	5.0% (5.3%)	23.6% (30.6%)	0.7% (1.9%)	9.1% (4.3%)	48.9% (46.5%)
Bicycles and Accessories	3.9% (2.1%)	9.1% (10.0%)	6.3% (7.0%)	33.8% (40.9%)	0.1% (0.1%)	46.8% (39.9%)
Golf Carts	7.3% (4.1%)	7.6% (5.8%)	31.0% (29.1%)	4.5% (8.4%)	0.1% (0.0%)	49.5% (52.7%)
Micromobility	6.4% (3.1%)	19.6% (9.7%)	4.2% (1.1%)	36.4% (47.2%)	0.0% (0.0%)	33.5% (39.0%)
OHVs	23.1% (9.3%)	7.2% (7.0%)	15.9% (19.8%)	11.1% (7.5%)	1.7% (0.3%)	41.0% (56.1%)
Other Riding Products	53.5% (11.0%)	5.5% (8.0%)	3.3% (12.9%)	6.0% (18.9%)	0.5% (0.0%)	31.2% (49.2%)
Non-Riding Product Mechanical	**54.5%** (40.9%)	**16.9%** (8.1%)	**3.0%** (9.4%)	**0.2%** (0.4%)	**0.1%** (0.1%)	**25.3%** (41.0%)
Cut/Pierce	53.8% (45.5%)	2.8% (2.6%)	2.3% (3.0%)	0.1% (0.1%)	0.1% (0.1%)	40.9% (48.7%)
Falls	56.4% (47.2%)	19.3% (11.5%)	1.9% (6.4%)	0.2% (0.3%)	0.1% (0.1%)	22.2% (34.5%)
Foreign Body	43.4% (36.3%)	3.9% (3.4%)	0.5% (0.7%)	0.3% (0.2%)	0.0% (0.1%)	52.0% (59.4%)
Overexertion	41.7% (29.9%)	7.4% (5.8%)	13.1% (19.9%)	0.4% (0.5%)	0.1% (0.2%)	37.4% (43.7%)
Struck Against/By	48.1% (34.5%)	9.6% (7.8%)	4.0% (11.1%)	0.2% (0.5%)	0.2% (0.2%)	38.0% (45.9%)
Other/Unknown	61.4% (28.4%)	13.9% (7.7%)	6.2% (26.8%)	0.3% (0.5%)	0.0% (0.0%)	18.3% (36.5%)

Source: U.S. Consumer Product Safety Commission: NEISS. Percentages are rounded to the nearest tenth of a percent and therefore may not add up to the total. Incidents that occur at adult care and nursing home facilities are in the "Other Public Property" location.

Table 12 presents the percent of the estimated annual average number of ED-treated injuries to seniors, and the percent of injuries to adults in parentheses, for each age group and category **by race**, based only on cases where the race of the individual is known. Cases where

the race of the individual is unknown are *not* considered in the percentages in Table 12. Among all estimated annual average number of ED-treated injuries, in 28.5 percent of senior injuries and in 23.6 percent of adult injuries the race is unknown.

The first row in the table shows the U.S. population shares for race for the adult and senior age groups, which can be used to compare to percentages of the same age groups in the table to see if percentages of ED-treated injuries for each age group and race are higher, lower, or about the same as their percentages in the U.S. population.

The percentages of senior injuries to Whites are at least 9 percent higher than the percent of Whites among seniors in the U.S. population (83.0 percent) in the Animal Riding (96.9 percent), Golf carts (94.8 percent), Ingestion (93.6 percent), OHVs (95.8 percent), and Other Riding Products (92.1 percent) categories. The percentages of senior injuries to Whites are lower in each Non-Mechanical category except the Ingestion category compared to the percentage of Whites among seniors in the U.S. population. In the Falls category, 87.0 percent of senior injuries where race is known are to Whites, while Whites make up 83.0 percent seniors in the U.S. population.

The percentages of senior injuries to Blacks are higher in every Non-Mechanical category except Ingestion (5.9 percent) and lower in every Rider Consumer Product category except Micro Mobility (13.2 percent), compared to their percentage of the senior U.S. population (9.9 percent).

From 2022 through 2023, of the patients where race is known that are categorized as Black, compared to the U.S. population categorized as Black, there are:

- about the same percentages of Black senior injuries (10.3 percent of injuries vs 9.9 percent in the population); and
- considerably higher percentages of Black adult injuries (23.1 percent of injuries vs. 13.9 percent in the population).

The percentages of adult and senior ED-treated injuries to Asians are lower than the percentages of Asians in the U.S. population for each age group in every category except for the Burns – Scalding category, where 5.7 percent of all injuries to seniors where race is known are to Asian seniors, compared to 5.1 percent of seniors in the U.S. population being Asian.

From 2022 through 2023, of the patients where race is known that are categorized as Asian, compared to the U.S. population categorized as Asian, there are:

- considerably lower percentages of Asian senior injuries (1.5 percent of injuries vs. 5.1 percent in the population); and
- considerably lower percentages of Asian adult injuries (1.9 percent of injuries vs. 7.0 percent in the population).

From 2022 through 2023, of the patients where race is known that are categorized as American Indian/Alaskan Native, compared to the U.S. population categorized as American Indian/Alaskan Native, there are:

- lower percentages of American Indian/Alaskan Native senior injuries (0.3 percent of injuries vs. 0.8 percent in the population); and

- lower percentages of American Indian/Alaskan Native adult injuries (0.7 percent of injuries vs. 1.3 percent in the population).

From 2022 through 2023, of the patients where race is known that are categorized as Native Hawaiian/Pacific Islander, compared to the U.S. population categorized as Native Hawaiian/Pacific Islander, there are:

- lower percentages of Native Hawaiian/Pacific Islander senior injuries (0.1 percent of injuries vs. 0.2 percent in the population); and
- lower percentages of Native Hawaiian/Pacific Islander adult injuries (0.2 percent of injuries vs. 0.3 percent in the population).

From 2022 through 2023, of the patients where race is known that are categorized as Multiracial/Other Known Races, compared to the U.S. population categorized as Multiracial/Other Known Races, there are:

- slightly higher percentages of Multiracial/Other Known Races senior injuries (1.2 percent of injuries vs. 1.1 percent in the population); and
- slightly higher percentages of Multiracial/Other Known Races adult injuries (2.9 percent of injuries vs. 2.2 percent in the population).

Table 12: Percent of the Annual Average Estimated Number of ED-Treated Injuries to Seniors Ages 65 Years and Older by Product/Hazard and Race, 2022-2023 (Percent of the Annual Average Estimated Number of ED-Treated Injuries to Adults Ages 25 to 64 Years)

Product/Hazard	White	Black/African American	Asian	American Indian/Alaska Native	Native Hawaiian/Pacific Islander	Multiracial/Other Known Races
Percent in the U.S. Population	**83.0%** (75.3%)	**9.9%** (13.9%)	**5.1%** (7.0%)	**0.8%** (1.3%)	**0.2%** (0.3%)	**1.1%** (2.2%)
Percent of All Injuries	**86.6%** (71.1%)	**10.3%** (23.1%)	**1.5%** (1.9%)	**0.3%** (0.7%)	**0.1%** (0.2%)	**1.2%** (2.9%)
Non-Mechanical	**73.8%** (65.2%)	**21.6%** (28.5%)	**2.9%** (2.1%)	**0.7%** (0.8%)	**0.1%** (0.2%)	**1.0%** (3.1%)
Fire-Related	78.8% (70.0%)	18.1% (25.4%)	1.6% (1.2%)	0.8% (0.8%)	0.0% (0.2%)	0.8% (2.3%)
Burns - Non-Fire Thermal	76.2% (69.0%)	19.6% (25.9%)	3.1% (1.7%)	0.7% (0.9%)	0.2% (0.1%)	0.2% (2.5%)
Burns – Scalding	68.1% (57.2%)	24.3% (31.7%)	5.7% (5.4%)	0.8% (0.6%)	0.2% (0.3%)	1.0% (4.8%)
Burns – Other/ Electric Shock	76.7% (71.2%)	18.2% (23.0%)	4.5% (1.8%)	0.0% (0.5%)	0.0% (0.0%)	0.6% (3.5%)
Allergy/Dermatitis/ Other Skin Issues	67.8% (60.0%)	23.4% (35.0%)	4.4% (1.6%)	1.6% (0.7%)	0.0% (0.3%)	2.8% (2.4%)
Anoxia/Aspiration/ Submersion	66.7% (65.8%)	30.6% (28.5%)	2.7% (0.8%)	0.0% (0.1%)	0.0% (0.2%)	0.0% (4.6%)
Ingestion	93.6% (69.0%)	5.9% (22.9%)	0.5% (1.8%)	0.0% (3.1%)	0.0% (0.2%)	0.0% (3.0%)
Poisoning	66.5% (61.3%)	30.6% (32.5%)	0.5% (1.7%)	0.9% (1.0%)	0.0% (0.7%)	1.5% (2.8%)
Riding Consumer Products	**89.1%** (74.8%)	**7.1%** (18.7%)	**1.4%** (2.2%)	**0.3%** (0.8%)	**0.0%** (0.2%)	**2.0%** (3.4%)
Animal Riding	96.9% (92.6%)	1.2% (2.4%)	0.0% (1.3%)	0.0% (0.3%)	0.0% (0.0%)	1.9% (3.5%)

Bicycles and Accessories	86.5% (73.8%)	8.6% (19.1%)	1.6% (2.6%)	0.4% (0.7%)	0.1% (0.2%)	2.8% (3.5%)
Golf Carts	94.8% (87.4%)	2.3% (9.6%)	1.8% (1.6%)	0.0% (0.0%)	0.0% (0.0%)	1.1% (1.4%)
Micromobility	82.3% (63.9%)	13.2% (27.0%)	1.8% (3.5%)	0.7% (0.9%)	0.0% (0.4%)	2.0% (4.3%)
OHVs	95.8% (84.1%)	2.7% (11.5%)	0.0% (0.5%)	0.0% (1.0%)	0.0% (0.0%)	1.5% (2.9%)
Other Riding Products	92.1% (74.5%)	5.5% (19.8%)	1.5% (1.7%)	0.3% (0.9%)	0.0% (0.2%)	0.7% (2.9%)
Non-Riding Product Mechanical	**86.7% (71.0%)**	**10.3% (23.3%)**	**1.4% (1.8%)**	**0.3% (0.7%)**	**0.1% (0.2%)**	**1.2% (2.9%)**
Cut/Pierce	89.6% (75.4%)	7.9% (18.3%)	1.2% (2.2%)	0.2% (0.7%)	0.1% (0.3%)	1.0% (3.1%)
Falls	87.0% (72.1%)	10.0% (22.5%)	1.5% (1.7%)	0.3% (0.7%)	0.1% (0.2%)	1.2% (2.8%)
Foreign Body	79.9% (69.1%)	15.5% (24.7%)	2.9% (1.8%)	0.1% (0.6%)	0.0% (0.2%)	1.6% (3.5%)
Overexertion	84.1% (67.5%)	13.1% (26.9%)	1.2% (2.0%)	0.4% (0.7%)	0.1% (0.3%)	1.0% (2.7%)
Struck Against/By	85.1% (68.3%)	11.5% (25.8%)	1.6% (1.8%)	0.4% (0.8%)	0.2% (0.2%)	1.1% (3.0%)
Other/Unknown	88.2% (70.5%)	8.9% (23.7%)	1.4% (1.3%)	0.4% (0.4%)	0.1% (0.5%)	0.9% (3.6%)

Source: U.S. Consumer Product Safety Commission: NEISS. Percentages are rounded to the nearest tenth of a percent and therefore may not add up to the total. The percentages in Table 12 exclude cases where the race of the patient is not known. In 28.5 percent of all senior cases and in 23.6 percent of all adult cases, the race of the patient is not known, and these cases are excluded from the percentages of known race patients calculated in Table 12.

Table 13 presents the percent of the estimated annual average number of ED-treated injuries to seniors, and the percent of injuries to adults in parentheses, for each age group and category **by whether individuals are Hispanic**, based on cases where it is known if the patient is or is not Hispanic. Cases where it is unknown whether the individual is Hispanic or not are not considered in the percentages in Table 13. Among all estimated annual average number of ED-treated injuries, in 32.4 percent of senior injuries and in 27.6 percent of adult injuries it is unknown whether the patient is Hispanic.

The first row in the table shows the U.S. population percentages for Hispanics and non-Hispanics for the adult and senior age groups, which can be used to compare to percentages of the same age groups in the table to see if percentages of ED-treated injuries for each age group are higher, lower, or about the same as their percentages seen in the U.S. population. Notice that, when comparing the percentages of injuries in each group to their corresponding population share, a larger proportion of adults in the U.S. population are Hispanic (18.9 percent) compared to the proportion of seniors in the U.S. population who are Hispanic (9.3 percent).

The percentages of adult and senior injuries that are to Hispanic individuals are lower than the percentage of Hispanics in the U.S. population in every category for each age group. In most categories, the percentages of senior injuries that are to Hispanics are less than half their corresponding population share.

Table 13: Percent of the Annual Average Estimated Number of ED-Treated Injuries to Seniors Ages 65 Years and Older by Product/Hazard and a Comparison of Hispanic and Non-Hispanic Seniors With the U.S. Population, 2022-2023 (Percent of the Annual Average Estimated Number of ED-Treated Injuries to Adults Ages 25 to 64 Years)

Product/Hazard	Hispanic	Non-Hispanic
Percent in the U.S. Population	**9.3%** (18.9%)	**90.7%** (81.1%)
Percent of All Injuries	**3.7%** (10.1%)	**96.3%** (89.9%)
Non-Mechanical	**3.5%** (11.3%)	**96.5%** (88.7%)
Fire-Related	2.3% (9.4%)	97.7% (90.6%)
Burns - Non-Fire Thermal	1.9% (8.8%)	98.1% (91.2%)
Burns – Scalding	5.0% (13.0%)	95.0% (87.0%)
Burns – Other/Electric Shock	4.5% (10.7%)	95.5% (89.3%)
Allergy/Dermatitis/Other Skin Issues	4.3% (10.2%)	95.7% (89.8%)
Anoxia/Aspiration/Submersion	3.1% (13.7%)	96.9% (86.3%)
Ingestion	0.0% (13.9%)	100.0% (86.1%)
Poisoning	7.1% (16.9%)	92.9% (83.1%)
Riding Consumer Products	**3.1%** (11.1%)	**96.9%** (88.9%)
Animal Riding	2.0% (8.0%)	98.0% (92.0%)
Bicycles and Accessories	3.3% (12.3%)	96.7% (87.7%)
Golf Carts	3.9% (7.4%)	96.1% (92.6%)
Micromobility	4.1% (12.6%)	95.9% (87.4%)
OHVs	3.9% (10.3%)	96.1% (89.7%)
Other Riding Products	2.0% (9.6%)	98.0% (90.4%)
Non-Riding Product Mechanical	**3.7%** (9.9%)	**96.3%** (90.1%)
Cut/Pierce	3.5% (11.1%)	96.5% (88.9%)
Falls	3.8% (9.2%)	96.2% (90.8%)
Foreign Body	7.0% (12.7%)	93.0% (87.3%)
Overexertion	3.5% (9.6%)	96.5% (90.4%)
Struck Against/By	3.7% (10.5%)	96.3% (89.5%)
Other/Unknown	3.0% (14.3%)	97.0% (85.7%)

Source: U.S. Consumer Product Safety Commission: NEISS. Percentages are rounded to the nearest tenth of a percent and therefore may not add up to the total. The percentages in Table 13 exclude cases where it is unknown whether the patient is Hispanic. In 32.4 percent of all senior cases and in 27.6 percent of all adult cases, it is unknown whether the patient is Hispanic, and these cases are excluded from the percentages of known race patients calculated in Table 13.

Non-Riding Product Mechanical Hazard Tier Subcategories[34]

Among the cases in the Non-Riding Product Mechanical hazard tier categories, every case is categorized into a product subcategory. Similar products producing the largest estimates in each category are grouped into product subcategories, and summary statistics for these subcategories are provided in Table 14 through Table 24.

For each category, if a case primarily involves a product that does not belong to one of the product subcategories, then the case was placed in the Other subcategory of each category. Cases in the Foreign Body and Other/Unknown hazard categories in Table 3 through Table 13 are the same cases that make up the corresponding subcategories in Table 14 through Table 24. The products that make up each product subcategory are listed in Table 40 in Appendix B.

There are an estimated annual average 3,043,400 ED-treated injuries to seniors ages 65 years and older, and an estimated annual average 3,758,200 ED-treated injuries to adults ages 25 to 64 years old associated with Non-Riding Mechanical consumer products in the U.S., based on the years 2022 and 2023. Among the estimated annual average number of ED-treated injuries to seniors, 129,600 injuries (4.3 percent) are due to Cut/Pierce injuries, 2,453,500 (80.6 percent) are due to Falls injuries, 10,800 (0.4 percent) are due to Foreign Body injuries, 257,600 (8.5 percent) are due to Overexertion injuries, 180,300 (5.9 percent) are due to Struck Against/By injuries, and 11,500 (0.4 percent) are due to Other/Unknown category injuries. Statistical breakdowns of each product/hazard subcategory can be found in Table 14 through Table 24. Refer to Appendix B for categorization definitions, methodology, and brief descriptions about the kinds of cases found in each subcategory; refer to Appendix D for descriptions and statistical highlights of each product subcategory in the Non-Riding Product Mechanical hazard tier, including proportions of products and product codes which compose each subcategory.

Non-Riding Product Mechanical Product/Hazard Subcategory Analysis

The same statistical breakdowns presented for each category in Table 3 through Table 13 above are presented for each product/hazard subcategory in Table 14 through Table 24. Calculations of the estimated annual average number of ED-treated injuries in the tables containing only percentages can be done by multiplying those percentages (i.e., percentages from Tables 16 and 19-24) by the corresponding overall estimated number of injuries appearing in Table 14 for each age group and for each category. Refer to subcategory sections above and in

Table 14 shows the estimated annual average number of ED-treated, Non-Riding Product Mechanical injuries **by age group** and product/hazard subcategory. The proportion of senior injuries to seniors in each age group are shown for each category, as well as the proportion of each senior age group among all seniors in the U.S. population.the Refer to language above Table 3 on how to interpret or calculate estimates in the tables below.

While seniors ages 85 years and older make up 11.2 percent of seniors in the U.S. population, the proportion seniors ages 85 years and older make up at least 30 percent of all senior injuries, in the following Falls category product subcategories: Beds (34.9 percent), Carpet/Rug (31.8 percent), Chairs/Sofas (32.9 percent), Clothing (38.3 percent), Counters/Sinks (30.9 percent), Floors [no other products] (35.2 percent), Furniture [various]

[34]Non-Riding Product Mechanical hazard tier subcategories are based on product codes prod1, prod2, and prod3, which are defined in Table 40 in Appendix B.

(31.0 percent), House Structure Surfaces (31.1 percent), Kitchen (32.6 percent), and Toilets (33.1 percent).

Table 14: Annual Average Estimated Number of ED-Treated Injuries for Age Groups by Product/Hazard, 2022-2023 (Percent of the Annual Average Estimated Number of ED-Treated Injuries of Seniors Ages 65 Years for each Senior Age Group)

Product/Hazard	Adults Ages 25 to 64 Years	Seniors Ages 65 Years and Older	65 to 74 Years	75 to 84 Years	85 Years and Older
Annual Average U.S. Population Estimate	**171,786,073**	**58,714,346**	**34,145,871**	**18,001,767**	**6,566,709**
Percent of the U.S. Senior Population			**58.2%**	**30.7%**	**11.2%**
All Non-Riding Product Mechanical Injuries, Annual Average	**3,758,200**	**3,043,400**	**1,182,300**	**1,084,700**	**776,400**
Percent of Senior Total		**100%**	**38.8%**	**35.6%**	**25.5%**
Cut/Pierce	**595,100**	**129,600**	**83,300 (64.3%)**	**37,400 (28.8%)**	**8,900 (6.9%)**
Knives	198,100	31,200	21,000 (67.2%)	8,800 (28.2%)	1,400 (4.6%)
Saws	55,000	21,100	13,500 (63.8%)	6,700 (31.6%)	1,000 (4.6%)
Other	341,900	77,300	48,900 (63.2%)	21,900 (28.3%)	6,500 (8.5%)
Falls	**1,664,200**	**2,453,500**	**845,000 (34.4%)**	**896,900 (36.6%)**	**711,600 (29.0%)**
Balconies/Decks/Porches	39,300	36,300	15,200 (41.8%)	13,900 (38.3%)	7,200 (19.9%)
Bathtubs/Showers	103,800	104,900	38,400 (36.6%)	39,700 (37.8%)	26,900 (25.6%)
Beach Chairs/ Benches/Bleachers	9,800	9,700	4,200 (43.3%)	3,600 (37.5%)	1,900 (19.2%)
Beds	127,400	373,700	109,100 (29.2%)	134,100 (35.9%)	130,400 (34.9%)
Boxes	10,400	14,000	6,300 (45.4%)	4,900 (35.1%)	2,700 (19.6%)
Brooms/Mops/Vacuums	6,600	8,700	3,800 (44.1%)	2,900 (32.9%)	2,000 (23.0%)
Carpet/Rug	21,200	81,200	23,100 (28.5%)	32,300 (39.8%)	25,800 (31.8%)
Chairs/Sofas	77,400	200,800	60,700 (30.2%)	74,000 (36.9%)	66,100 (32.9%)
Clothing	12,500	41,100	10,900 (26.6%)	14,500 (35.1%)	15,700 (38.3%)
Counters/Sinks	16,200	21,600	7,400 (34.2%)	7,500 (34.8%)	6,700 (30.9%)
Elevators/Escalators	6,400	10,400	3,900 (37.9%)	3,500 (34.0%)	2,900 (28.1%)
Exercise Activity	34,400	27,200	13,800 (51.0%)	9,000 (33.0%)	4,400 (16.1%)
Floor (no other products)	230,200	579,100	165,400 (28.6%)	209,900 (36.2%)	203,900 (35.2%)
Footwear	21,400	46,400	15,700 (33.8%)	18,900 (40.6%)	11,900 (25.6%)
Furniture (various)	54,800	100,000	32,900 (32.8%)	36,100 (36.1%)	31,000 (31.0%)
House Structure Surfaces	61,600	102,700	32,600 (31.8%)	38,100 (37.1%)	32,000 (31.1%)
Kitchen	6,100	17,500	5,300 (30.5%)	6,500 (37.0%)	5,700 (32.6%)
Ladders	87,500	53,100	32,100 (60.4%)	16,700 (31.4%)	4,400 (8.2%)
Outdoor Work/Lawn Tools	18,400	32,900	13,200 (40.2%)	13,000 (39.4%)	6,700 (20.4%)
Pet Products	22,200	23,300	12,000 (51.4%)	8,400 (36.1%)	2,900 (12.5%)

Ramps/Stairs/Steps	399,400	278,200	126,400 (45.4%)	102,600 (36.9%)	49,200 (17.7%)
Recreation/Sports	113,300	39,300	22,700 (57.8%)	13,100 (33.3%)	3,500 (9.0%)
Stools	11,700	16,400	6,600 (40.1%)	6,100 (37.0%)	3,700 (22.9%)
Toilets	35,900	97,600	28,200 (28.9%)	37,000 (37.9%)	32,300 (33.1%)
Waste	6,900	14,600	4,900 (33.8%)	6,000 (40.9%)	3,700 (25.3%)
Other	129,300	122,900	50,100 (40.8%)	44,800 (36.5%)	28,000 (22.7%)
Foreign Body	**68,000**	**10,800**	**7,100 (65.6%)**	**2,600 (24.4%)**	**1,100 (10.1%)**
Overexertion	**761,600**	**257,600**	**143,700 (55.8%)**	**86,500 (33.6%)**	**27,400 (10.6%)**
Beds	43,900	23,600	11,000 (46.4%)	8,700 (36.7%)	4,000 (17.0%)
Boxes	34,800	11,100	6,300 (56.4%)	3,800 (34.0%)	1,100 (9.6%)
Chairs/Sofas	28,800	19,200	8,000 (41.9%)	7,700 (39.9%)	3,500 (18.2%)
Clothing/Footwear	31,200	11,900	6,400 (53.7%)	3,600 (30.0%)	1,900 (16.3%)
Exercise Activity	112,500	36,700	21,100 (57.4%)	12,100 (32.8%)	3,600 (9.8%)
Outdoor Work/Lawn Tools	31,200	19,700	12,300 (62.3%)	6,100 (31.0%)	1,300 (6.7%)
Ramps/Stairs/Steps	79,500	21,900	13,400 (61.0%)	6,800 (31.2%)	1,700 (7.8%)
Recreation/Sports	182,200	34,000	20,400 (60.0%)	– (34.4%)	1,900 (5.6%)
Other	217,400	79,300	44,900 (56.6%)	26,100 (32.9%)	8,300 (10.5%)
Struck Against/By	**645,600**	**180,300**	**98,100 (54.4%)**	**57,300 (31.8%)**	**24,900 (13.8%)**
Beds	22,400	9,400	4,300 (45.7%)	3,000 (32.3%)	2,100 (22.0%)
Chairs/Sofas	15,200	7,400	3,000 (40.6%)	2,700 (36.2%)	1,700 (23.2%)
Furniture (various)	64,800	26,500	13,600 (51.4%)	8,700 (32.8%)	4,200 (15.8%)
House Structure Surfaces	140,300	36,500	18,300 (50.1%)	12,000 (33.0%)	6,200 (16.9%)
Outdoor Work/Lawn Tools	19,200	8,900	5,700 (64.1%)	2,500 (28.4%)	700 (7.5%)
Other	383,600	91,700	53,200 (58.0%)	28,400 (30.9%)	10,100 (11.0%)
Other/Unknown	**23,800**	**11,500**	**5,000 (43.7%)**	**4,000 (34.5%)**	**2,500 (21.7%)**

Source: U.S. Consumer Product Safety Commission: NEISS. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Estimates are rounded to the nearest hundred and therefore may not add up to the total.

Table 15 shows the estimated annual average numbers of ED-treated, Non-Riding Product Mechanical **injury rates per 100,000 people in the U.S. population**, and in parentheses are the estimated annual average numbers of ED-treated **injury rates per 100,000 people in the U.S. treated for *serious* injuries** for the adult and senior age groups for each product/hazard subcategory. In addition, in the second column of Table 15, injury rate ratios comparing the per 100,000 estimates of ED-treated injuries, and in parentheses comparing the ratios of per 100,000 estimates of *serious* ED-treated injuries, of the senior age group *with respect to* the adult age group for each product/hazard subcategory are presented. A serious injury includes an ED-treated injury which results in a death, hospitalization, or being treated and transferred (i.e., disp = 8, 4, or 2, respectively). Injury estimates per 100,000 individuals in the population and injury rate ratios are also presented in Table 17, comparing males to females. Refer to language above Table 4 for illustrations on how to interpret or calculate estimates in Table 15 and Table 17.

Of all Non-Riding Product Mechanical hazard ED-treated injuries, seniors are 2.4 times as likely as adults to be ED-treated, and 8.0 times as likely to be ED-treated for serious injuries,

than their shares in the U.S. population. The only subcategory where adults are ED-treated more often than seniors for serious injuries is in the Cut/Pierce Other subcategory (injury rate ratio value is 0.7 and serious injury rate ratio value is 0.8).

The largest disparities when comparing injury rates for seniors and adults who are treated for serious ED-treated injuries are the Carpet/Rug Falls and Clothing Falls subcategories, where seniors are 25.2 times as likely to be ED-treated for serious injuries than adults due to Carpet/Rug Falls, and 20.4 times as likely to be ED-treated for serious injuries than adults due to Clothing Falls. The next largest injury rate ratios comparing seniors with respect to adults for serious ED-treated injuries are Falls involving Footwear (injury rate ratio value for serious injuries of 17.7), Kitchen (injury rate ratio value for serious injuries of 15.2), Beds (injury rate ratio value for serious injuries of 14.9), Chairs/Sofas (injury rate ratio value for serious injuries of 14.8), Waste (injury rate ratio value for serious injuries of 13.1), and Toilets (injury rate ratio value for serious injuries of 12.2). Notice that Falls while partaking in activities associated with all of these product subcategories are mostly associated with routine home activities.

Comparing the differences between the injury rates of seniors to adults for *all* injuries to those injury rates of seniors to adults for *serious* injuries, the product/hazard subcategories with the biggest differences are Overexertion injuries involving Beds (all injury rate ratio is 1.6 and serious injury rate ratio is 7.6), Boxes (all injury rate ratio is 0.9 and serious injury rate ratio is 4.9), Chairs/Sofas (all injury rate ratio is 1.9 and serious injury rate ratio is 8.0), and Clothing/Footwear (all injury rate ratio is 1.1 and serious injury rate ratio is 4.5).

Comparing per 100,000 injury rates for ED-treated and serious ED-treated injuries among the three senior groups where estimates are reported, staff noted the following:

- Among Cut/Pierce injuries:
    - seniors ages 65 to 74 years are ED-treated slightly more frequently than seniors ages 75 to 84 years, and both younger senior age groups are ED-treated more frequently than the oldest age group.
- Among Falls Injuries:
    - seniors ages 85 years and older are treated more frequently for ED-treated and serious ED-treated injuries than the younger two senior age groups in every subcategory except Ladders, Pet Products, and Recreation/Sports;
    - seniors ages 75 to 84 years are treated more frequently for ED-treated and serious ED-treated injuries than seniors ages 65 to 74 years in every subcategory except Ladders; and
    - the largest disparity in the rates seniors ages 85 years and older experiencing ED-treated and serious ED-treated injuries compared to the younger two senior age groups are in the Beds, Clothing, and Floors subcategories, where seniors ages 85 years and older are ED-treated and ED-treated for serious injuries at more than 2.5 times as frequently as seniors ages 75 to 84 years, and more than six times as frequently as the youngest senior age group for each of those product subcategories, respectively.
- Among Overexertion Injuries:
    - seniors ages 85 and older and seniors ages 75 to 84 years are ED-treated for serious injuries more frequently than seniors ages 65 to 74 years; and
    - seniors ages 75 to 84 years are ED-treated more frequently for all injuries than the younger and older senior age groups.

- Among Struck Against/By Injuries:
  - seniors ages 85 years and older are ED-treated more frequently for all and serious injuries than the younger two senior age groups; and
  - seniors ages 75 to 84 years are ED-treated more frequently for all and serious ED-treated injuries than seniors ages 65 to 74 years.

Table 15: Injury Rate (per 100,000 Population) for Age Groups and Injury Rate Ratio Comparisons for Seniors with Respect to Adults by Product/Hazard Injury Rate, 2022-2023 (Serious Injuries)

Product/Hazard	Injury Rate Ratio for Seniors Compared to Adults	Adults Ages 25 to 64 Years	Seniors Ages 65 Years and Older	65 to 74 Years	75 to 84 Years	85 Years and Older
Annual Average Per 100,000 Population: All Injuries (Serious Injuries)	**2.4 (8.0)**	**2,187.7 (195.8)**	**5,183.4 (1,558.8)**	**3,462.4 (839.7)**	**6,025.6 (1,910.6)**	**11,823.5 (4,334.0)**
Cut/Pierce	**0.6 (0.9)**	**346.4 (11.4)**	**220.8 (10.1)**	**244.1 (11.1)**	**207.6 (9.4)**	**136.0 (–)**
Knives	0.5 (–)	115.3 (1.9)	53.2 (–)	61.5 (–)	48.9 (–)	21.7 (–)
Saws	1.1 (1.4)	32.0 (2.2)	35.9 (3.1)	39.4 (3.0)	37.0 (3.7)	14.7 (–)
Other	0.7 (0.8)	199.0 (7.2)	131.7 (6.1)	143.2 (7.0)	121.7 (5.0)	99.6 (–)
Falls	**4.3 (9.9)**	**968.8 (144.6)**	**4,178.7 (1,431.9)**	**2,474.7 (733.9)**	**4,982.5 (1,762.1)**	**10,836.1 (4,156.6)**
Balconies/Decks/Porches	2.7 (4.8)	22.9 (3.7)	61.9 (17.7)	44.4 (10.7)	77.3 (21.8)	110.1 (42.8)
Bathtubs/Showers	3.0 (8.2)	60.4 (7.6)	178.7 (61.9)	112.4 (31.4)	220.6 (82.6)	409.0 (163.8)
Beach Chairs/Benches/ Bleachers	2.9 (6.3)	5.7 (0.6)	16.5 (3.7)	12.3 (2.0)	20.2 (5.1)	28.4 (–)
Beds	8.6 (14.9)	74.2 (15.4)	636.4 (229.1)	319.6 (109.6)	745.0 (271.3)	1,986.1 (735.0)
Boxes	3.9 (10.4)	6.1 (0.6)	23.8 (5.8)	18.6 (4.3)	27.2 (7.0)	41.7 (10.2)
Brooms/Mops/Vacuums	3.9 (–)	3.8 (–)	14.9 (3.8)	11.3 (1.9)	16.0 (4.9)	30.5 (10.6)
Carpet/Rug	11.2 (25.2)	12.3 (1.5)	138.3 (39.0)	67.6 (15.8)	179.3 (51.2)	393.0 (126.5)
Chairs/Sofas	7.6 (14.8)	45.1 (8.2)	342.0 (121.2)	177.8 (56.5)	411.2 (153.4)	1,006.0 (369.4)
Clothing	9.6 (20.4)	7.3 (1.2)	70.0 (25.0)	32.0 (9.5)	80.3 (31.8)	239.7 (86.4)
Counters/Sinks	3.9 (8.1)	9.4 (1.3)	36.7 (10.8)	21.6 (6.9)	41.7 (11.2)	101.6 (29.4)
Elevators/Escalators	4.7 (9.1)	3.7 (0.4)	17.7 (3.9)	11.5 (2.2)	19.6 (4.0)	44.5 (–)
Exercise Activity	2.3 (5.6)	20.0 (2.1)	46.3 (12.0)	40.5 (8.5)	49.7 (–)	66.5 (–)
Floor (no other products)	7.4 (14.1)	134.0 (29.9)	986.3 (419.5)	484.2 (190.2)	1,165.8 (505.6)	3,104.6 (1,375.6)
Footwear	6.3 (17.7)	12.5 (1.2)	79.1 (20.4)	45.9 (9.4)	104.7 (30.4)	180.8 (50.4)
Furniture (various)	5.3 (11.5)	31.9 (4.0)	170.4 (45.4)	96.2 (21.4)	200.8 (55.1)	472.7 (143.4)
House Structure Surfaces	4.9 (9.3)	35.8 (5.3)	174.9 (49.6)	95.5 (25.1)	211.6 (56.4)	486.9 (157.9)
Kitchen	8.5 (15.2)	3.5 (0.7)	29.8 (10.3)	15.6 (5.0)	35.9 (12.5)	86.7 (31.6)
Ladders	1.8 (3.2)	51.0 (9.7)	90.5 (31.0)	93.9 (29.7)	92.6 (–)	66.6 (29.1)
Outdoor Work/Lawn Tools	5.2 (8.8)	10.7 (1.5)	56.0 (13.0)	38.7 (7.1)	72.0 (16.4)	102.3 (34.3)
Pet Products	3.1 (7.1)	12.9 (1.4)	39.7 (9.9)	35.1 (6.5)	46.8 (13.0)	44.3 (18.7)
Ramps/Stairs/Steps	2.0 (5.6)	232.5 (26.4)	473.8 (148.4)	370.1 (95.7)	570.1 (193.8)	749.2 (297.5)
Recreation/Sports	1.0 (–)	66.0 (5.3)	67.0 (–)	66.5 (–)	72.7 (–)	53.6 (–)
Stools	4.1 (9.1)	6.8 (0.8)	27.9 (7.3)	19.2 (3.5)	33.7 (10.7)	57.0 (17.4)

Toilets	8.0 (12.2)	20.9 (5.6)	166.2 (68.2)	82.7 (32.7)	205.5 (84.1)	492.3 (208.7)
Waste	6.2 (13.1)	4.0 (0.6)	24.8 (7.4)	14.4 (3.8)	33.1 (11.2)	56.2 (15.5)
Other	2.8 (5.7)	75.3 (9.3)	209.4 (52.6)	146.8 (30.7)	249.0 (60.9)	425.8 (143.6)
Foreign Body	**0.5 (–)**	**39.6 (1.8)**	**18.4 (–)**	**20.8 (–)**	**14.6 (–)**	**16.6 (–)**
Overexertion	**1.0 (3.7)**	**443.3 (21.8)**	**438.7 (79.7)**	**420.9 (67.6)**	**480.4 (96.1)**	**416.9 (97.5)**
Beds	1.6 (7.6)	25.5 (0.8)	40.3 (6.4)	32.1 (4.1)	48.2 (8.1)	61.0 (13.4)
Boxes	0.9 (4.9)	20.3 (0.5)	19.0 (2.4)	18.4 (–)	21.0 (4.0)	16.3 (–)
Chairs/Sofas	1.9 (8.0)	16.8 (0.7)	32.7 (5.4)	23.6 (3.4)	42.5 (6.8)	53.1 (11.7)
Clothing/Footwear	1.1 (4.5)	18.2 (0.7)	20.3 (3.3)	18.7 (2.3)	19.8 (4.0)	29.5 (–)
Exercise Activity	1.0 (–)	65.5 (5.1)	62.6 (–)	61.7 (–)	66.9 (–)	55.1 (–)
Outdoor Work/Lawn Tools	1.8 (4.1)	18.2 (1.8)	33.6 (7.5)	36.0 (7.6)	34.0 (8.3)	20.1 (–)
Ramps/Stairs/Steps	0.8 (2.6)	46.3 (2.6)	37.3 (6.7)	39.1 (5.9)	38.0 (8.2)	26.0 (–)
Recreation/Sports	0.5 (–)	106.1 (4.7)	58.0 (–)	59.8 (–)	– (–)	29.1 (–)
Other	1.1 (3.4)	126.5 (4.9)	135.1 (16.5)	131.5 (13.4)	145.0 (17.9)	126.6 (29.3)
Struck Against/By	**0.8 (1.9)**	**375.8 (15.2)**	**307.2 (29.3)**	**287.2 (22.3)**	**318.5 (33.7)**	**379.8 (53.5)**
Beds	1.2 (2.8)	13.0 (0.6)	16.1 (1.7)	12.6 (–)	16.9 (–)	31.6 (–)
Chairs/Sofas	1.4 (4.5)	8.8 (0.4)	12.6 (1.6)	8.8 (–)	14.9 (–)	26.1 (–)
Furniture (various)	1.2 (3.5)	37.7 (1.0)	45.1 (3.6)	39.8 (2.5)	48.2 (4.0)	63.8 (–)
House Structure Surfaces	0.8 (1.8)	81.7 (3.3)	62.1 (6.0)	53.5 (4.0)	66.9 (6.9)	94.0 (13.9)
Outdoor Work/Lawn Tools	1.4 (2.5)	11.2 (0.7)	15.1 (1.6)	16.7 (–)	14.0 (–)	10.2 (–)
Other	0.7 (1.6)	223.3 (9.3)	156.2 (14.7)	155.8 (12.2)	157.6 (17.1)	154.0 (21.3)
Other/Unknown	**1.4 (6.7)**	**13.8 (1.0)**	**19.6 (6.9)**	**14.7 (4.0)**	**22.1 (8.6)**	**38.1 (–)**

Source: U.S. Consumer Product Safety Commission: NEISS. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Per 100,000 estimates are rounded to the nearest tenth and therefore may not add up to the total.

To compare **sex-based differences in Non-Riding Product Mechanical injuries**, Table 16 presents the percent of the estimated annual average number of ED-treated, injuries to males, and the percent of injuries to females in parentheses, for each age group and product/hazard subcategory, and the U.S. population percentages for males and females for the respective age groups for comparison purposes. If the proportion of male or female injuries is higher than the proportion of males or females in the U.S. population for a particular age group and subcategory, then that sex is at a higher risk than the opposite sex in the U.S. population for that particular age group and subcategory of interest.

Among all Non-Riding Product Mechanical hazard injuries, a slightly higher proportion of seniors are female (59.4 percent) compared to the proportion of female seniors in the U.S. population (55.1 percent). The proportion of injuries to seniors in each of the three senior age groups is relatively slightly higher for females than the proportions of females in the U.S. population for each of the three senior age groups.

The biggest difference between the percentages of senior female and male injuries and the percentages of senior females and males in the U.S. population is in the Cut/Pierce category and Saws subcategory, where 96.3 percent of injuries are to males, while 44.9 percent of seniors in the U.S. population are male.

There is a higher proportion of senior female Falls injuries compared to the proportion of female seniors in the U.S. population (55.1 percent) in every product subcategory except for Ladders (32.9 percent), Outdoor Work/Lawn Tools (46.5 percent), and Recreation/Sports (47.5 percent); a higher proportion of senior female Overexertion injuries in every product subcategory except for Exercise Activity (48.3 percent), Outdoor Work/Lawn Tools (31.4 percent), and Recreation/Sports (30.7 percent); and a higher proportion of senior female Struck Against/By injuries in every product subcategory except for Outdoor Work/Lawn Tools (32.6 percent).

The largest product/hazard subcategory disparities comparing proportions of senior female and male injuries to their U.S. population proportions were in the following categories, where the percentage of injuries to females were notably higher than their 55.1-percent share of the senior population: Brooms/Mops/Vacuums Falls (80.3 percent), Carpet/Rug Falls (72.7 percent), Footwear Falls (75.9 percent), Kitchen Falls (69.9 percent), and Pet Products Falls (75.4 percent).

Table 16: Percent of the Annual Average Estimated Number of ED-Treated Injuries for Age Groups by Product/Hazard and Sex, 2022-2023 Male (Female)

Product/Hazard	Adults Ages 25 to 64 Years	Seniors Ages 65 Years and Older	65 to 74 Years	75 to 84 Years	85 Years and Older
Percent of the U.S. Population Male (Female)	50.2% (49.8%)	44.9% (55.1%)	47.1% (52.9%)	44.2% (55.8%)	35.4% (64.6%)
Percent of All Non-Riding Product Mechanical Injuries	52.2% (47.7%)	40.6% (59.4%)	45.1% (54.9%)	40.7% (59.3%)	33.7% (66.3%)
Cut/Pierce	63.0% (37.0%)	65.4% (34.6%)	65.4% (34.6%)	67.6% (32.4%)	56.0% (44.0%)
Knives	56.9% (43.1%)	49.8% (50.2%)	49.1% (50.9%)	53.1% (46.9%)	39.4% (60.6%)
Saws	92.8% (7.2%)	96.3% (3.6%)	95.7% (4.3%)	97.1% (2.9%)	100.0% (0.0%)
Other	61.7% (38.2%)	63.2% (36.7%)	64.0% (36.0%)	64.6% (35.4%)	53.1% (46.9%)
Falls	45.1% (54.8%)	38.0% (62.0%)	41.6% (58.4%)	38.7% (61.3%)	33.1% (66.9%)
Balconies/Decks/Porches	47.5% (52.5%)	41.4% (58.6%)	46.3% (53.7%)	38.1% (61.9%)	37.6% (62.4%)
Bathtubs/Showers	41.1% (58.9%)	41.9% (58.1%)	44.6% (55.4%)	41.6% (58.4%)	38.6% (61.4%)
Beach Chairs/Benches/ Bleachers	55.8% (43.7%)	40.3% (59.7%)	41.7% (58.3%)	43.1% (56.9%)	31.5% (68.5%)
Beds	47.9% (52.0%)	39.2% (60.8%)	44.0% (56.0%)	40.2% (59.8%)	34.0% (66.0%)
Boxes	38.9% (61.1%)	33.5% (66.5%)	34.1% (65.9%)	28.6% (71.4%)	40.6% (59.4%)
Brooms/Mops/Vacuums	24.5% (75.5%)	19.7% (80.3%)	19.8% (80.2%)	22.3% (77.7%)	15.9% (84.1%)
Carpet/Rug	33.0% (67.0%)	27.3% (72.7%)	25.5% (74.5%)	29.1% (70.9%)	26.8% (73.2%)
Chairs/Sofas	45.2% (54.8%)	39.2% (60.8%)	43.3% (56.7%)	40.1% (59.9%)	34.6% (65.4%)
Clothing	31.9% (68.1%)	33.3% (66.7%)	30.5% (69.5%)	36.1% (63.9%)	32.7% (67.3%)
Counters/Sinks	47.5% (52.3%)	37.2% (62.8%)	38.9% (61.1%)	38.7% (61.3%)	33.7% (66.3%)
Elevators/Escalators	42.8% (57.2%)	32.0% (68.0%)	30.1% (69.9%)	30.8% (69.2%)	35.9% (64.1%)
Exercise Activity	44.5% (55.5%)	44.6% (55.4%)	41.3% (58.7%)	46.1% (53.9%)	52.3% (47.7%)

Floor (no other products)	43.4% (56.6%)	36.5% (63.4%)	41.6% (58.4%)	37.7% (62.3%)	31.2% (68.8%)
Footwear	28.0% (72.0%)	24.1% (75.9%)	20.7% (79.3%)	24.0% (76.0%)	28.5% (71.5%)
Furniture (various)	44.8% (55.2%)	37.4% (62.6%)	43.4% (56.6%)	37.2% (62.8%)	31.3% (68.7%)
House Structure Surfaces	45.4% (54.6%)	36.8% (63.2%)	41.4% (58.6%)	36.6% (63.4%)	32.3% (67.7%)
Kitchen	41.7% (58.3%)	30.1% (69.9%)	34.4% (65.6%)	32.1% (67.9%)	23.9% (76.1%)
Ladders	74.9% (25.0%)	67.1% (32.9%)	68.6% (31.4%)	67.2% (32.8%)	54.8% (45.2%)
Outdoor Work/Lawn Tools	57.8% (42.2%)	53.4% (46.5%)	54.1% (45.9%)	53.7% (46.1%)	51.6% (48.4%)
Pet Products	22.8% (77.2%)	24.6% (75.4%)	22.3% (77.7%)	27.2% (72.8%)	26.3% (73.7%)
Ramps/Stairs/Steps	39.2% (60.8%)	37.4% (62.6%)	37.2% (62.8%)	38.3% (61.7%)	36.2% (63.8%)
Recreation/Sports	54.9% (45.1%)	52.5% (47.5%)	52.3% (47.7%)	52.6% (47.4%)	53.8% (46.2%)
Stools	46.8% (53.1%)	38.1% (61.9%)	45.8% (54.2%)	36.4% (63.6%)	27.3% (72.7%)
Toilets	39.7% (60.1%)	34.1% (65.9%)	35.5% (64.5%)	36.7% (63.3%)	29.8% (70.2%)
Waste	46.2% (53.8%)	41.7% (58.3%)	47.9% (52.1%)	41.5% (58.5%)	34.0% (66.0%)
Other	48.1% (51.9%)	38.2% (61.8%)	42.7% (57.3%)	37.4% (62.6%)	31.5% (68.5%)
Foreign Body	**63.4% (36.5%)**	**59.9% (40.1%)**	**66.5% (33.5%)**	**52.6% (47.4%)**	**34.0% (66.0%)**
Overexertion	**54.0% (46.0%)**	**47.1% (52.9%)**	**50.2% (49.8%)**	**45.1% (54.9%)**	**37.0% (63.0%)**
Beds	42.0% (58.0%)	36.1% (63.9%)	37.7% (62.3%)	37.4% (62.6%)	28.7% (71.3%)
Boxes	49.1% (50.9%)	43.6% (56.4%)	45.7% (54.3%)	40.8% (59.2%)	40.8% (59.2%)
Chairs/Sofas	46.3% (53.7%)	34.8% (65.2%)	38.8% (61.2%)	33.7% (66.3%)	28.1% (71.9%)
Clothing/Footwear	34.7% (65.2%)	33.6% (66.4%)	39.4% (60.6%)	28.5% (71.5%)	23.9% (76.1%)
Exercise Activity	53.8% (46.2%)	51.7% (48.3%)	53.8% (46.2%)	49.5% (50.5%)	46.9% (53.1%)
Outdoor Work/Lawn Tools	69.8% (30.2%)	68.6% (31.4%)	71.5% (28.5%)	65.5% (34.5%)	56.2% (43.8%)
Ramps/Stairs/Steps	36.4% (63.6%)	37.6% (62.4%)	39.2% (60.8%)	34.9% (65.1%)	36.3% (63.7%)
Recreation/Sports	73.6% (26.2%)	69.3% (30.7%)	69.9% (30.1%)	69.4% (30.6%)	63.1% (36.9%)
Other	48.7% (51.2%)	41.3% (58.7%)	44.1% (55.9%)	38.9% (61.1%)	34.0% (66.0%)
Struck Against/By	**57.2% (42.8%)**	**46.7% (53.3%)**	**48.8% (51.2%)**	**46.9% (53.1%)**	**37.9% (62.1%)**
Beds	40.7% (59.3%)	42.5% (57.5%)	48.1% (51.9%)	44.0% (56.0%)	28.6% (71.4%)
Chairs/Sofas	40.2% (59.4%)	31.8% (68.2%)	28.9% (71.1%)	32.1% (67.9%)	36.5% (63.5%)
Furniture (various)	41.6% (58.4%)	35.9% (64.0%)	34.1% (65.6%)	40.3% (59.7%)	32.2% (67.8%)
House Structure Surfaces	56.2% (43.8%)	41.6% (58.4%)	41.7% (58.3%)	43.5% (56.5%)	37.5% (62.5%)
Outdoor Work/Lawn Tools	73.3% (26.7%)	67.4% (32.6%)	66.9% (33.1%)	71.7% (28.3%)	55.3% (44.7%)
Other	61.0% (38.9%)	51.4% (48.6%)	54.2% (45.8%)	49.7% (50.3%)	41.5% (58.5%)
Other/Unknown	**56.1% (43.8%)**	**51.0% (49.0%)**	**57.3% (42.7%)**	**48.2% (51.8%)**	**42.7% (57.3%)**

Source: U.S. Consumer Product Safety Commission: NEISS. Percentages are rounded to the nearest tenth of a percent and therefore may not add up to the total. Total Percentages Include Patients with Other or Unknown Sex. There are 85 cases out of 297,889 which are patients with Other or Unknown Sex, which is 0.03% of all cases for all ages 25 years and older.

Table 17 shows comparisons of the estimated annual average numbers of ED-treated, Non-Riding Product Mechanical **injury rates per 100,000 people in the U.S. population for males and females along with an injury rate ratio comparing the per 100,000 estimates for males *with respect to* the per 100,000 estimates for females** for each product/hazard subcategory. Injury rate ratio numbers greater than 1.0 in Table 17 indicate that a higher percentage of males in the U.S. population are ED-treated than the percentage of females in the U.S. population who are ED-treated for a particular product/hazard subcategory. Conversely, injury rate ratio numbers less than 1.0 indicate that a higher percentage of females in the U.S. population are ED-treated than the percentage of males in the U.S. population who are ED-treated for a particular product/hazard subcategory. Injury rate ratio numbers equal to 1.0 indicate that the percentage of males and percentage of females are ED-treated at about the same rate in the U.S. population.

Recall in Table 6, among the falls category, there are about twice as many falls per 100,000 in the population to seniors ages 85 years and older compared to seniors ages 75 to 84 years old, and about four times as many falls to seniors ages 85 years and older than seniors ages 65 to 74 years. There are estimated annual averages of 4,699.3 falls per every 100,000 senior females in the U.S. population and 3,539.4 falls per every 100,000 senior males in the U.S. population. Table 17 breaks out all Falls injuries into product subcategories to show how many estimated annual average ED-treated injuries per 100,000 in the U.S. population there are for each sex and product/hazard subcategory and for each age group, and to show how much more frequently one sex is ED-treated than the other for each product/hazard subcategory.

Observing the same product/hazard subcategories discussed above Table 16, senior males are 32.5 times more likely to be ED-treated than senior females for Saws Cut/Pierce injuries. Among senior Falls injuries, males are 2.5 times more likely to be ED-treated for Ladders injuries, 1.4 times more likely for Outdoor Work/Lawn Tools injuries, and 1.4 times more likely for Recreation/Sports injuries. Among Foreign Body injuries to seniors, males are 1.8 times as likely to be ED-treated compared to females. Among Overexertion injuries to seniors, males are 1.3 times more likely to be ED-treated for Exercise Activity injuries, 2.7 times more likely for Outdoor Work/Lawn Tools injuries, and 2.8 times as likely for Recreation/Sports injuries. Among Struck Against/By injuries to seniors, males are 2.5 times more likely to be ED-treated for Outdoor Work/Lawn Tools injuries.

Senior females are more likely to experience injuries than senior males in most of the other product/hazard subcategories not mentioned above. The subcategories with the smallest injury rate ratios for senior males with respect to senior females shown in Table 17 are those in which females are ED-treated at the highest rates compared to males. Females are:

- 3.3 (21.7 / 6.5 = 3.34) times as likely to be ED-treated for Brooms/Mops/Vacuums Falls injuries as males;
- 2.6 (109.0 / 42.3 = 2.58) times as likely to be ED-treated for Footwear Falls injuries as males;
- 2.5 (54.4 / 21.7 = 2.51) times as likely to be ED-treated for Pet Products Falls injuries as males; and
- 2.2 (182.4 / 84.1 = 2.17) times as likely to be ED-treated for Carpet/Rug Falls injuries as males.
- 1.9 (37.8 / 20.0 = 1.89) times as likely to be ED-treated for Kitchen Falls injuries as males.

When comparing the product/hazard injury rate ratios of males with respect to females among the three senior age groups, there is little variation, with a handful of product/hazard exceptions. The largest difference is in the 65 to 74 years old age group (where males are 0.8 times as likely) and the 85 years and older age group (where males are 2.0 times as likely) in Exercise Activity Falls. For Exercise Activity Overexertion injuries, males ages 65 to 74 years are 1.3 times as likely and males ages 85 years and older are 1.6 times as likely as their female counterparts to be ED-treated.

Table 17: Injury Rate (per 100,000 Population) for Age Groups by Sex and Injury Rate Ratio Comparisons of Males With Respect To Females by Product/Hazard, 2022-2023; (Male) (Female)

Product/Hazard	Adults Ages 25 to 64 Years	Seniors Ages 65 Years and Older	65 to 74 Years	75 to 84 Years	85 Years and Older
All Injuries, Annual Average Per 100,000 Male (Female)	1.1 (2,273.8) (2,098.9)	0.8 (4,686.6) (5,587.6)	0.9 (3,314.8) (3,592.9)	0.9 (5,543.8) (6,407.0)	0.9 (11,242.7) (12,141.2)
Cut/Pierce	**1.7 (434.4) (257.3)**	**2.3 (321.4) (138.7)**	**2.1 (338.7) (159.7)**	**2.6 (317.6) (120.4)**	**2.3 (215.1) (92.7)**
Knives	1.3 (130.6) (99.8)	1.2 (59.0) (48.5)	1.1 (64.2) (59.2)	1.4 (58.7) (41.1)	– (–) (20.3)
Saws	12.8 (59.2) (4.6)	32.5 (77.0) (2.4)	– (80.0) (–)	– (81.2) (–)	– (41.5) (–)
Other	1.6 (244.6) (153.0)	2.1 (185.5) (87.8)	2.0 (194.5) (97.3)	2.3 (177.7) (77.3)	2.1 (149.4) (72.3)
Falls	**0.8 (870.3) (1,067.6)**	**0.8 (3,539.4) (4,699.3)**	**0.8 (2,183.3) (2,733.5)**	**0.8 (4,356.9) (5,477.8)**	**0.9 (10,123.7) (11,226.0)**
Balconies/Decks/Porches	0.9 (21.6) (24.2)	0.9 (57.1) (65.8)	1.0 (43.7) (45.1)	0.8 (66.7) (85.8)	1.1 (116.9) (106.4)
Bathtubs/Showers	0.7 (49.5) (71.5)	0.9 (166.9) (188.4)	0.9 (106.4) (117.8)	0.9 (207.8) (230.7)	1.1 (445.5) (388.9)
Beach Chairs/Benches/ Bleachers	1.3 (6.3) (5.0)	0.8 (14.8) (17.9)	0.8 (10.9) (13.6)	1.0 (19.7) (20.6)	0.8 (25.2) (30.1)
Beds	0.9 (70.7) (77.6)	0.8 (555.1) (702.6)	0.9 (298.5) (338.1)	0.8 (678.1) (798.0)	0.9 (1,908.8) (2,028.5)
Boxes	0.6 (4.7) (7.5)	0.6 (17.7) (28.8)	0.6 (13.4) (23.1)	0.5 (17.7) (34.8)	1.2 (47.7) (38.3)
Brooms/Mops/Vacuums	0.3 (1.9) (5.8)	0.3 (6.5) (21.7)	0.3 (4.7) (17.1)	0.4 (8.1) (22.2)	– (–) (39.8)
Carpet/Rug	0.5 (8.1) (16.6)	0.5 (84.1) (182.4)	0.4 (36.5) (95.3)	0.5 (118.0) (227.8)	0.7 (296.9) (445.7)
Chairs/Sofas	0.8 (40.6) (49.6)	0.8 (298.7) (377.1)	0.9 (163.3) (190.4)	0.8 (372.9) (441.5)	1.0 (981.7) (1,019.4)
Clothing	0.5 (4.6) (10.0)	0.6 (51.9) (84.8)	0.5 (20.7) (42.0)	0.7 (65.5) (92.0)	0.9 (221.4) (249.7)
Counters/Sinks	0.9 (8.9) (9.9)	0.7 (30.4) (41.9)	0.7 (17.9) (25.0)	0.8 (36.6) (45.8)	0.9 (96.6) (104.4)
Elevators/Escalators	0.7 (3.2) (4.3)	0.6 (12.6) (21.9)	0.5 (7.4) (15.3)	0.6 (13.7) (24.4)	1.0 (45.1) (44.2)
Exercise Activity	0.8 (17.8) (22.4)	1.0 (46.0) (46.5)	0.8 (35.5) (45.0)	1.1 (51.9) (48.0)	2.0 (98.1) (49.2)
Floor (no other products)	0.8 (115.6) (152.5)	0.7 (802.6) (1,135.9)	0.8 (427.6) (534.7)	0.8 (995.5) (1,300.7)	0.8 (2,737.0) (3,305.4)
Footwear	0.4 (7.0) (18.0)	0.4 (42.3) (109.0)	0.3 (20.2) (68.9)	0.4 (56.9) (142.6)	0.7 (145.7) (200.1)
Furniture (various)	0.8 (28.4) (35.4)	0.7 (141.9) (193.6)	0.9 (88.6) (103.0)	0.7 (169.2) (225.9)	0.8 (417.4) (503.0)
House Structure Surfaces	0.8 (32.4) (39.3)	0.7 (143.2) (200.7)	0.8 (84.0) (105.8)	0.7 (175.0) (240.6)	0.9 (443.7) (510.5)
Kitchen	0.7 (2.9) (4.1)	0.5 (20.0) (37.8)	0.6 (11.4) (19.3)	0.6 (26.0) (43.7)	0.6 (58.6) (102.1)
Ladders	3.0 (76.0) (25.6)	2.5 (135.1) (54.1)	2.5 (136.9) (55.7)	2.6 (140.8) (54.4)	2.2 (103.1) (46.5)
Outdoor Work/Lawn Tools	1.4 (12.3) (9.1)	1.4 (66.7) (47.3)	1.3 (44.4) (33.6)	1.5 (87.5) (59.5)	1.9 (149.0) (76.6)
Pet Products	0.3 (5.9) (20.0)	0.4 (21.7) (54.4)	0.3 (16.6) (51.6)	0.5 (28.8) (61.0)	0.7 (32.9) (50.5)

Ramps/Stairs/Steps	0.6 (181.3) (284.0)	0.7 (394.7) (538.2)	0.7 (292.1) (439.3)	0.8 (493.7) (630.6)	1.0 (765.5) (740.2)
Recreation/Sports	1.2 (72.0) (59.8)	1.4 (78.3) (57.7)	1.2 (73.8) (60.0)	1.4 (86.5) (61.8)	2.1 (81.4) (38.3)
Stools	0.9 (6.3) (7.3)	0.8 (23.7) (31.4)	0.9 (18.7) (19.7)	0.7 (27.8) (38.4)	0.7 (43.9) (64.2)
Toilets	0.7 (16.5) (25.2)	0.6 (126.1) (198.8)	0.6 (62.2) (100.9)	0.7 (170.6) (233.2)	0.8 (414.9) (534.8)
Waste	0.9 (3.7) (4.3)	0.9 (23.1) (26.3)	1.0 (14.7) (14.2)	0.9 (31.1) (34.7)	0.9 (53.9) (57.5)
Other	0.9 (72.0) (78.5)	0.8 (178.3) (234.7)	0.8 (133.2) (159.0)	0.8 (210.9) (279.2)	0.8 (378.7) (451.6)
Foreign Body	**1.7 (50.0) (29.0)**	**1.8 (24.6) (13.4)**	**2.2 (29.3) (13.2)**	**1.4 (17.4) (12.4)**	**– (–) (16.9)**
Overexertion	**1.2 (476.2) (409.7)**	**1.1 (459.8) (421.5)**	**1.1 (448.2) (396.6)**	**1.0 (490.3) (472.5)**	**1.1 (435.2) (406.8)**
Beds	0.7 (21.4) (29.8)	0.7 (32.3) (46.7)	0.7 (25.7) (37.8)	0.8 (40.7) (54.1)	0.7 (49.5) (67.3)
Boxes	1.0 (19.8) (20.7)	0.9 (18.4) (19.4)	0.9 (17.9) (18.9)	0.9 (19.4) (22.3)	– (–) (14.9)
Chairs/Sofas	0.9 (15.5) (18.1)	0.7 (25.3) (38.7)	0.7 (19.4) (27.3)	0.6 (32.4) (50.5)	0.7 (42.1) (59.1)
Clothing/Footwear	0.5 (12.6) (23.8)	0.6 (15.2) (24.4)	0.7 (15.6) (21.4)	0.5 (12.8) (25.4)	– (–) (34.8)
Exercise Activity	1.2 (70.2) (60.8)	1.3 (72.1) (54.8)	1.3 (70.5) (53.9)	1.2 (75.0) (60.5)	1.6 (73.0) (45.3)
Outdoor Work/Lawn Tools	2.3(25.2) (11.0)	2.7 (51.3) (19.1)	2.8 (54.6) (19.4)	2.4 (50.3) (21.0)	2.3 (32.0) (13.6)
Ramps/Stairs/Steps	0.6 (33.5) (59.2)	0.7 (31.3) (42.3)	0.7 (32.5) (45.0)	0.7 (30.0) (44.4)	1.0 (26.7) (25.6)
Recreation/Sports	2.8 (155.4) (55.9)	2.8 (89.5) (32.3)	2.6 (88.8) (34.0)	– (–) (–)	– (–) (16.7)
Other	0.9 (122.8) (130.3)	0.9 (124.4) (143.8)	0.9 (123.1) (139.0)	0.8 (127.7) (158.6)	0.9 (121.5) (129.4)
Struck Against/By	**1.3 (427.6) (323.1)**	**1.1 (319.2) (297.2)**	**1.1 (297.4) (277.9)**	**1.1 (337.5) (303.4)**	**1.1 (406.8) (365.0)**
Beds	0.7 (10.6) (15.6)	0.9 (15.2) (16.8)	1.0 (12.9) (12.4)	1.0 (16.9) (17.0)	0.7 (25.6) (35.0)
Chairs/Sofas	0.7 (7.1) (10.5)	0.6 (8.9) (15.6)	0.5 (5.4) (11.8)	0.6 (10.8) (18.1)	1.1 (26.9) (25.6)
Furniture (various)	0.7 (31.2) (44.3)	0.7 (36.0) (52.3)	0.6 (28.8) (49.4)	0.9 (44.0) (51.5)	0.9 (58.0) (67.0)
House Structure Surfaces	1.3 (91.3) (71.9)	0.9 (57.5) (65.9)	0.8 (47.4) (59.0)	1.0 (65.8) (67.7)	1.1 (99.6) (90.9)
Outdoor Work/Lawn Tools	2.7 (16.3) (6.0)	2.5 (22.7) (9.0)	2.3 (23.7) (10.4)	3.2 (22.7) (7.1)	– (–) (–)
Other	1.6 (271.1) (174.8)	1.3 (178.8) (137.7)	1.3 (179.2) (134.9)	1.2 (177.3) (142.0)	1.3 (180.7) (139.4)
Other/Unknown	**1.3 (15.4) (12.2)**	**1.3 (22.2) (17.4)**	**1.5 (17.9) (11.9)**	**1.2 (24.0) (20.5)**	**– (–) (33.8)**

Source: U.S. Consumer Product Safety Commission: NEISS. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Per 100,000 estimates are rounded to the nearest tenth and therefore may not add up to the total.

Table 18 shows the estimated total number of ED-treated senior injuries for each product/hazard subcategory **by year of incident**. There does not appear to be too many major differences in the numbers of injuries observed between the two years for most of the categories. The biggest difference between the estimated number of injuries occurring in 2022 and 2023 for a single subcategory is the Kitchen Falls subcategory, where of the 17,500 injuries over the two years, 57 percent occurred in 2022 and 43 percent occurred in 2023.

Table 18: Estimated Total Number of ED-Treated Injuries to Seniors Ages 65 Years and Older by Product/Hazard and Year, 2022-2023 (Percent of the Estimated Number of ED-Treated Injuries to Seniors Ages 65 Years and Older)

Product/Hazard	2022	2023	Total
Annual Total Estimated Number of Non-Riding Product Mechanical Injuries Per Year (Percent of the Total)	**1,506,400 (100.0%)**	**1,537,000 (100.0%)**	**3,043,400 (100.0%)**
Cut/Pierce	**64,500 (4.3%)**	**65,100 (4.2%)**	**129,600 (4.3%)**
Knives	15,300 (1.0%)	15,900 (1.0%)	31,200 (1.0%)
Saws	9,900 (0.7%)	11,200 (0.7%)	21,100 (0.7%)
Other	39,400 (2.6%)	38,000 (2.5%)	77,300 (2.5%)
Falls	**1,219,100 (80.9%)**	**1,234,400 (80.3%)**	**2,453,500 (80.6%)**
Balconies/Decks/Porches	18,900 (1.3%)	17,500 (1.1%)	36,300 (1.2%)
Bathtubs/Showers	50,700 (3.4%)	54,300 (3.5%)	104,900 (3.4%)
Beach Chairs/Benches/Bleachers	4,700 (0.3%)	5,000 (0.3%)	9,700 (0.3%)
Beds	180,200 (12.0%)	193,400 (12.6%)	373,700 (12.3%)
Boxes	6,900 (0.5%)	7,100 (0.5%)	14,000 (0.5%)
Brooms/Mops/Vacuums	4,400 (0.3%)	4,400 (0.3%)	8,700 (0.3%)
Carpet/Rug	39,600 (2.6%)	41,600 (2.7%)	81,200 (2.7%)
Chairs/Sofas	98,400 (6.5%)	102,400 (6.7%)	200,800 (6.6%)
Clothing	19,800 (1.3%)	21,300 (1.4%)	41,100 (1.4%)
Counters/Sinks	10,200 (0.7%)	11,400 (0.7%)	21,600 (0.7%)
Elevators/Escalators	4,600 (0.3%)	5,800 (0.4%)	10,400 (0.3%)
Exercise Activity	14,000 (0.9%)	13,200 (0.9%)	27,200 (0.9%)
Floor (no other products)	308,200 (20.5%)	270,900 (17.6%)	579,100 (19.0%)
Footwear	22,900 (1.5%)	23,600 (1.5%)	46,400 (1.5%)
Furniture (various)	49,100 (3.3%)	51,000 (3.3%)	100,000 (3.3%)
House Structure Surfaces	49,200 (3.3%)	53,500 (3.5%)	102,700 (3.4%)
Kitchen	9,900 (0.7%)	7,600 (0.5%)	17,500 (0.6%)
Ladders	25,700 (1.7%)	27,400 (1.8%)	53,100 (1.7%)
Outdoor Work/Lawn Tools	17,200 (1.1%)	15,700 (1.0%)	32,900 (1.1%)
Pet Products	11,000 (0.7%)	12,300 (0.8%)	23,300 (0.8%)
Ramps/Stairs/Steps	135,400 (9.0%)	142,800 (9.3%)	278,200 (9.1%)
Recreation/Sports	17,600 (1.2%)	21,700 (1.4%)	39,300 (1.3%)
Stools	7,800 (0.5%)	8,600 (0.6%)	16,400 (0.5%)
Toilets	47,300 (3.1%)	50,300 (3.3%)	97,600 (3.2%)
Waste	6,800 (0.5%)	7,800 (0.5%)	14,600 (0.5%)
Other	58,800 (3.9%)	64,200 (4.2%)	122,900 (4.0%)
Foreign Body	**5,200 (0.3%)**	**5,600 (0.4%)**	**10,800 (0.4%)**

Overexertion	**121,100 (8.0%)**	**136,400 (8.9%)**	**257,600 (8.5%)**
Beds	11,600 (0.8%)	12,100 (0.8%)	23,600 (0.8%)
Boxes	5,700 (0.4%)	5,500 (0.4%)	11,100 (0.4%)
Chairs/Sofas	9,800 (0.6%)	9,400 (0.6%)	19,200 (0.6%)
Clothing/Footwear	5,400 (0.4%)	6,500 (0.4%)	11,900 (0.4%)
Exercise Activity	16,700 (1.1%)	20,000 (1.3%)	36,700 (1.2%)
Outdoor Work/Lawn Tools	9,600 (0.6%)	10,100 (0.7%)	19,700 (0.6%)
Ramps/Stairs/Steps	10,200 (0.7%)	11,700 (0.8%)	21,900 (0.7%)
Recreation/Sports	16,200 (1.1%)	17,800 (1.2%)	34,000 (1.1%)
Other	36,000 (2.4%)	43,300 (2.8%)	79,300 (2.6%)
Struck Against/By	**90,700 (6.0%)**	**89,600 (5.8%)**	**180,300 (5.9%)**
Beds	4,600 (0.3%)	4,800 (0.3%)	9,400 (0.3%)
Chairs/Sofas	3,300 (0.2%)	4,100 (0.3%)	7,400 (0.2%)
Furniture (various)	14,200 (0.9%)	12,300 (0.8%)	26,500 (0.9%)
House Structure Surfaces	18,800 (1.2%)	17,700 (1.2%)	36,500 (1.2%)
Outdoor Work/Lawn Tools	4,900 (0.3%)	4,000 (0.3%)	8,900 (0.3%)
Other	44,900 (3.0%)	46,700 (3.0%)	91,700 (3.0%)
Other/Unknown	**5,700 (0.4%)**	**5,800 (0.4%)**	**11,500 (0.4%)**

Source: U.S. Consumer Product Safety Commission: NEISS. Estimates and column percentages are rounded and therefore may not add up to the totals.

Table 19 presents the percent of the estimated annual average number of ED-treated, Non-Riding Product Mechanical injuries to seniors, and the percent of injuries to adults in parentheses, for each age group and product/hazard subcategory **by severity of injury**. Subcategories where percentages are higher in serious injury dispositions (i.e., treated and transferred, hospitalization, and fatality categories, or disp = 2, 4, and 8, respectively) suggest that the age group with the higher percent in these columns experiences more severe injuries than the other age group, for injuries associated with that particular subcategory. For example, of all annual average ED-treated injuries to seniors associated with Ladders Falls, 31.2 percent resulted in a hospitalization, whereas for adults only 16.9 percent resulted in a hospitalization—about 1.8 times as high (31.2 / 16.9 = 1.84) for seniors compared to adults.

The percentage of senior ED-treated injuries resulting in a hospitalization is higher than the percentage of adult injuries resulting in a hospitalization for every product/hazard subcategory, which indicates that ED-treated injuries to seniors appear to result in more serious injuries compared to adult ED-treated injuries in every product/hazard subcategory.

The percent of hospitalizations due to Falls is nearly three times as high or higher for seniors compared to adults in the Bathtubs/Showers (32.5 percent of senior injuries vs. 11.2 percent of adult injuries), Boxes (22.1 percent vs. 7.6 percent), Brooms/Mops/Vacuums (23.2 percent vs. 8.3 percent), Recreation/Sports (21.1 percent vs. 7.1 percent), Ramps/Stairs/Steps (28.1 percent vs. 10.2 percent), and each Overexertion subcategory except for Outdoor Work/Lawn Tools subcategories.

Table 19: Percent of the Annual Average Estimated Number of ED-Treated Injuries to Seniors Ages 65 Years and Older by Product/Hazard and Disposition, 2022-2023 (Percent of the Annual Average Estimated Number of ED-Treated Injuries to Adults Ages 25 to 64 Years)

Product/Hazard	Treated & Released	Treated & Transferred	Hospitalized	Fatality	Other
Percent of All Non-Riding Product Mechanical Injuries	**66.6%** (86.8%)	**2.1%** (1.0%)	**27.8%** (7.9%)	**0.2%** (0.1%)	**3.3%** (4.2%)
Cut/Pierce	**93.6%** (92.9%)	**1.1%** (0.7%)	**3.5%** (2.6%)	**0.0%** (0.0%)	**1.8%** (3.8%)
Knives	95.6% (94.3%)	0.0% (0.4%)	1.7% (1.3%)	0.0% (0.0%)	2.7% (4.0%)
Saws	90.3% (90.8%)	3.4% (1.9%)	5.2% (4.8%)	0.0% (0.0%)	1.1% (2.4%)
Other	93.6% (92.4%)	0.9% (0.7%)	3.8% (3.0%)	0.0% (0.0%)	1.7% (3.9%)
Falls	**62.3%** (80.6%)	**2.4%** (1.4%)	**31.7%** (13.4%)	**0.2%** (0.1%)	**3.5%** (4.5%)
Balconies/Decks/Porches	70.1% (80.7%)	2.7% (2.6%)	25.9% (13.3%)	0.0% (0.3%)	1.2% (3.0%)
Bathtubs/Showers	61.3% (82.0%)	1.9% (1.3%)	32.5% (11.2%)	0.2% (0.1%)	4.0% (5.5%)
Beach Chairs/Benches/ Bleachers	74.4% (84.3%)	2.2% (0.8%)	20.0% (9.6%)	0.1% (0.0%)	3.3% (5.4%)
Beds	60.6% (74.8%)	2.0% (1.8%)	33.8% (18.9%)	0.2% (0.1%)	3.4% (4.4%)
Boxes	73.5% (87.8%)	2.2% (1.5%)	22.1% (7.6%)	0.0% (0.0%)	2.2% (3.0%)
Brooms/Mops/Vacuums	72.1% (88.4%)	2.5% (0.1%)	23.2% (8.3%)	0.0% (0.0%)	2.3% (3.2%)
Carpet/Rug	68.3% (83.1%)	3.4% (0.8%)	24.7% (11.6%)	0.0% (0.1%)	3.4% (4.3%)
Chairs/Sofas	60.5% (77.2%)	2.3% (1.8%)	33.0% (16.2%)	0.2% (0.1%)	4.1% (4.7%)
Clothing	61.7% (77.5%)	2.6% (0.6%)	33.1% (16.1%)	0.0% (0.0%)	2.6% (5.8%)
Counters/Sinks	66.1% (80.5%)	2.6% (1.7%)	26.6% (12.2%)	0.0% (0.2%)	4.6% (5.4%)
Elevators/Escalators	72.7% (83.8%)	0.9% (0.1%)	21.3% (11.5%)	0.0% (0.0%)	5.2% (4.6%)
Exercise Activity	71.1% (86.5%)	2.0% (1.3%)	23.9% (9.3%)	0.1% (0.0%)	3.0% (2.9%)
Floor (no other products)	54.1% (72.6%)	2.5% (1.8%)	39.8% (20.2%)	0.2% (0.2%)	3.4% (5.1%)
Footwear	71.6% (87.6%)	2.7% (0.6%)	23.2% (8.7%)	0.0% (0.0%)	2.5% (3.2%)
Furniture (various)	69.4% (81.9%)	2.1% (1.0%)	24.4% (11.4%)	0.1% (0.0%)	4.0% (5.7%)
House Structure Surfaces	67.4% (79.4%)	2.3% (1.5%)	26.0% (13.3%)	0.1% (0.1%)	4.3% (5.7%)
Kitchen	60.3% (75.9%)	4.5% (2.9%)	29.9% (16.3%)	0.1% (0.0%)	5.3% (4.9%)
Ladders	63.4% (77.2%)	3.0% (2.1%)	31.2% (16.9%)	0.1% (0.1%)	2.3% (3.7%)
Outdoor Work/Lawn Tools	74.1% (83.3%)	1.8% (2.4%)	21.2% (11.3%)	0.2% (0.0%)	2.7% (2.9%)
Pet Products	72.9% (87.6%)	2.0% (1.0%)	22.8% (9.8%)	0.0% (0.0%)	2.2% (1.7%)
Ramps/Stairs/Steps	65.4% (83.6%)	2.9% (1.1%)	28.1% (10.2%)	0.3% (0.1%)	3.3% (5.0%)
Recreation/Sports	74.8% (89.1%)	1.8% (0.9%)	21.1% (7.1%)	0.1% (0.1%)	2.2% (2.8%)
Stools	70.5% (83.6%)	1.6% (0.5%)	24.4% (11.1%)	0.0% (0.1%)	3.5% (4.7%)
Toilets	54.6% (68.8%)	2.4% (2.0%)	38.5% (24.4%)	0.1% (0.2%)	4.4% (4.6%)
Waste	67.4% (82.8%)	1.3% (0.5%)	28.4% (13.6%)	0.1% (0.0%)	2.8% (3.2%)
Other	71.2% (83.7%)	2.8% (1.6%)	22.3% (10.7%)	0.1% (0.0%)	3.7% (4.0%)
Foreign Body	**91.0%** (90.2%)	**0.9%** (1.2%)	**3.7%** (3.4%)	**0.0%** (0.0%)	**4.4%** (5.2%)

Overexertion	**79.0%** (91.8%)	**1.0%** (0.4%)	**17.0%** (4.5%)	**0.2%** (0.0%)	**2.8%** (3.3%)
Beds	81.6% (93.8%)	1.0% (0.2%)	14.9% (3.1%)	0.0% (0.0%)	2.5% (3.0%)
Boxes	84.4% (94.1%)	0.6% (0.2%)	12.2% (2.2%)	0.0% (0.0%)	2.9% (3.5%)
Chairs/Sofas	81.8% (93.3%)	1.6% (0.3%)	14.9% (3.8%)	0.0% (0.0%)	1.7% (2.7%)
Clothing/Footwear	81.6% (93.3%)	1.1% (0.2%)	14.9% (3.7%)	0.1% (0.0%)	2.4% (2.7%)
Exercise Activity	69.7% (88.0%)	1.0% (0.3%)	25.1% (7.4%)	0.5% (0.0%)	3.8% (4.3%)
Outdoor Work/Lawn Tools	74.9% (86.9%)	1.9% (0.9%)	19.3% (8.5%)	1.0% (0.6%)	2.9% (3.1%)
Ramps/Stairs/Steps	78.1% (91.1%)	0.5% (0.5%)	17.5% (5.0%)	0.0% (0.0%)	3.9% (3.4%)
Recreation/Sports	71.2% (92.3%)	1.2% (0.3%)	24.2% (4.1%)	0.3% (0.0%)	3.1% (3.3%)
Other	85.5% (93.0%)	0.6% (0.5%)	11.6% (3.4%)	0.0% (0.0%)	2.3% (3.1%)
Struck Against/By	**88.1%** (91.2%)	**0.9%** (0.8%)	**8.5%** (3.3%)	**0.1%** (0.0%)	**2.4%** (4.7%)
Beds	88.3% (92.0%)	1.2% (0.4%)	9.3% (4.3%)	0.0% (0.0%)	1.2% (3.4%)
Chairs/Sofas	83.6% (90.9%)	0.7% (1.0%)	12.4% (3.1%)	0.0% (0.0%)	3.3% (5.0%)
Furniture (various)	90.0% (93.3%)	0.8% (0.4%)	7.0% (2.3%)	0.1% (0.0%)	2.1% (4.0%)
House Structure Surfaces	87.7% (89.9%)	0.6% (0.9%)	8.9% (3.1%)	0.2% (0.0%)	2.6% (6.0%)
Outdoor Work/Lawn Tools	88.2% (90.2%)	1.5% (0.7%)	9.2% (5.1%)	0.0% (0.0%)	1.1% (4.0%)
Other	88.0% (91.3%)	1.0% (0.8%)	8.4% (3.4%)	0.1% (0.0%)	2.5% (4.5%)
Other/Unknown	**59.5%** (89.0%)	**1.1%** (0.5%)	**33.0%** (6.4%)	**1.2%** (0.5%)	**5.3%** (3.5%)

Source: U.S. Consumer Product Safety Commission: NEISS. Percentages are rounded to the nearest tenth of a percent and therefore may not add up to the total. The Other dispositions include “held for observation”, “left without being seen”, and “unknown or not stated.”

Table 20 presents the percent of the estimated annual average number of ED-treated, Non-Riding Product Mechanical injuries to seniors, and the percent of injuries to adults in parentheses, for each age group and product/hazard subcategory **by primary diagnosis of injury**. In most subcategories, percentages of primary diagnosis of injuries do not differ much between adults and seniors because the nature of injuries suffered in most subcategories are likely to be roughly the same types of injuries regardless of age.

The percentage of adult injuries that are sprains or strains is as high or higher than the percent of senior injuries that are sprains or strains in every subcategory except for the Outdoor Work/Lawn Tools subcategory in the Struck Against/By category.

The percentage of senior injuries that are internal organ injuries is as high or higher than the percent of adult injuries that are internal organ injuries in every subcategory except for the Knives Cut/Pierce, Benches/Bleachers/Beach Chair Falls, Kitchen Falls, Box Overexertion, and Chairs/Sofas Overexertion subcategories.

The proportion of injuries that are fracture injuries is higher for adults than for seniors in every Struck Against/By subcategory but, of the rest of the subcategories which are not under the Struck Against/By category, the proportion of injuries that are fractures is higher for seniors than adults in every subcategory except for the Exercise Activity Falls, Foreign Body, and Recreation/Sports Overexertion subcategories.

Table 20: Percent of the Annual Average Estimated Number of ED-Treated Injuries to Seniors Ages 65 Years and Older by Product/Hazard and Diagnosis, 2022-2023 (Percent of the Annual Average Estimated Number of ED-Treated Injuries to Adults Ages 25 to 64 Years)

Product/Hazard	Contusions, Abrasions	Fractures	Internal Organ	Lacerations	Sprains, Strains	Other
Percent of All Non-Riding Product Mechanical Injuries	**13.0%** (11.0%)	**22.3%** (13.6%)	**19.1%** (8.3%)	**11.1%** (18.3%)	**4.3%** (12.2%)	**30.3%** (36.6%)
Cut/Pierce	**1.2%** (0.9%)	**3.6%** (2.2%)	**0.3%** (0.2%)	**72.8%** (75.2%)	**0.0%** (0.1%)	**22.1%** (21.5%)
Knives	0.7% (0.5%)	0.3% (0.2%)	0.0% (0.1%)	91.1% (92.4%)	0.0% (0.1%)	7.9% (6.8%)
Saws	0.2% (0.8%)	13.4% (11.5%)	0.2% (0.2%)	74.9% (75.7%)	0.1% (0.1%)	11.2% (11.8%)
Other	1.6% (1.2%)	2.3% (1.8%)	0.5% (0.2%)	64.8% (65.1%)	0.0% (0.1%)	30.9% (31.6%)
Falls	**14.2%** (14.7%)	**25.5%** (20.6%)	**22.7%** (14.9%)	**8.5%** (8.4%)	**2.6%** (9.7%)	**26.5%** (31.7%)
Balconies/Decks/Porches	15.0% (16.0%)	34.1% (26.2%)	18.9% (12.0%)	8.1% (7.7%)	5.3% (12.0%)	18.6% (26.1%)
Bathtubs/Showers	14.0% (16.7%)	24.4% (13.1%)	23.9% (17.4%)	7.8% (8.8%)	3.2% (8.2%)	26.8% (35.8%)
Beach Chairs/Benches/ Bleachers	10.0% (18.1%)	23.4% (11.8%)	22.9% (23.0%)	11.3% (7.0%)	4.5% (7.3%)	27.8% (32.9%)
Beds	14.8% (14.7%)	18.9% (13.4%)	21.7% (17.6%)	7.9% (8.6%)	1.9% (6.0%)	34.8% (39.7%)
Boxes	16.4% (15.6%)	32.0% (22.7%)	18.5% (7.9%)	7.8% (8.9%)	5.6% (13.0%)	19.6% (32.0%)
Brooms/Mops/Vacuums	13.0% (13.7%)	36.2% (23.9%)	15.6% (15.2%)	8.9% (6.9%)	6.6% (11.9%)	19.7% (28.5%)
Carpet/Rug	16.0% (14.1%)	32.2% (25.6%)	19.6% (13.4%)	7.3% (6.7%)	3.1% (9.3%)	21.7% (30.9%)
Chairs/Sofas	13.4% (13.4%)	22.0% (15.1%)	21.3% (17.5%)	7.1% (6.9%)	2.7% (8.0%)	33.5% (39.1%)
Clothing	12.1% (13.7%)	33.9% (22.0%)	22.1% (15.1%)	6.9% (8.1%)	1.9% (6.4%)	23.2% (34.7%)
Counters/Sinks	12.2% (14.7%)	19.5% (11.1%)	28.1% (24.6%)	16.7% (20.8%)	1.4% (2.4%)	22.3% (26.3%)
Elevators/Escalators	15.5% (18.4%)	22.4% (13.3%)	24.7% (18.7%)	13.0% (11.0%)	2.8% (7.3%)	21.7% (31.3%)
Exercise Activity	12.9% (13.1%)	30.4% (30.6%)	17.1% (9.2%)	11.9% (9.2%)	3.0% (12.3%)	24.7% (25.7%)
Floor (no other products)	15.6% (16.7%)	22.3% (13.3%)	25.7% (21.5%)	6.5% (6.6%)	1.6% (6.4%)	28.3% (35.4%)
Footwear	13.4% (17.2%)	35.9% (28.1%)	18.9% (8.6%)	9.4% (7.9%)	3.1% (11.6%)	19.2% (26.6%)
Furniture (various)	14.9% (15.6%)	20.3% (13.5%)	26.0% (22.7%)	18.1% (20.5%)	1.5% (3.3%)	19.3% (24.5%)
House Structure Surfaces	13.1% (13.7%)	22.2% (14.2%)	29.8% (25.4%)	10.7% (15.1%)	2.0% (4.8%)	22.1% (26.7%)
Kitchen	14.3% (14.3%)	28.7% (18.7%)	22.2% (27.6%)	9.4% (12.3%)	2.0% (2.4%)	23.4% (24.6%)
Ladders	9.6% (12.6%)	42.5% (37.2%)	20.4% (11.2%)	8.0% (6.2%)	4.8% (9.2%)	14.7% (23.6%)
Outdoor Work/Lawn Tools	14.3% (16.5%)	28.7% (22.7%)	16.9% (10.0%)	13.9% (9.9%)	4.7% (11.5%)	21.4% (29.4%)
Pet Products	13.4% (15.1%)	37.6% (30.5%)	18.4% (8.5%)	7.6% (8.7%)	5.1% (11.6%)	17.9% (25.6%)
Ramps/Stairs/Steps	13.2% (14.6%)	34.1% (23.2%)	20.2% (10.6%)	8.2% (5.7%)	3.9% (14.4%)	20.4% (31.5%)
Recreation/Sports	9.4% (9.8%)	36.8% (32.5%)	16.9% (7.9%)	7.3% (4.5%)	5.3% (14.5%)	24.4% (30.8%)
Stools	14.5% (11.6%)	26.4% (18.1%)	24.2% (21.6%)	10.1% (12.2%)	4.1% (7.0%)	20.7% (29.5%)
Toilets	14.0% (13.8%)	19.1% (11.3%)	24.7% (23.7%)	6.2% (11.2%)	2.3% (3.4%)	33.7% (36.5%)
Waste	13.6% (16.2%)	32.5% (21.8%)	23.1% (12.2%)	10.9% (12.8%)	1.7% (9.8%)	18.1% (27.2%)
Other	14.6% (15.7%)	30.4% (22.0%)	18.6% (11.0%)	12.0% (14.2%)	3.5% (9.9%)	20.9% (27.3%)
Foreign Body	**7.2%** (6.4%)	**0.0%** (0.2%)	**0.3%** (0.2%)	**0.9%** (1.0%)	**0.0%** (0.0%)	**91.6%** (92.2%)

Overexertion	**0.9%** (0.8%)	**9.2%** (6.7%)	**0.5%** (0.2%)	**0.2%** (0.1%)	**24.5%** (35.7%)	**64.8%** (56.5%)
Beds	1.0% (0.6%)	12.9% (4.9%)	0.2% (0.1%)	0.0% (0.0%)	23.8% (33.2%)	62.2% (61.2%)
Boxes	0.7% (0.6%)	7.9% (1.5%)	0.0% (0.3%)	0.0% (0.0%)	28.7% (37.1%)	62.7% (60.6%)
Chairs/Sofas	0.8% (1.1%)	13.4% (4.7%)	0.0% (0.1%)	0.1% (0.0%)	26.0% (32.7%)	59.7% (61.4%)
Clothing/Footwear	1.0% (0.8%)	12.0% (9.0%)	0.3% (0.1%)	0.0% (0.2%)	23.6% (33.1%)	63.2% (56.9%)
Exercise Activity	0.4% (0.7%)	4.2% (3.3%)	0.8% (0.3%)	0.0% (0.0%)	15.9% (27.1%)	78.8% (68.6%)
Outdoor Work/Lawn Tools	0.6% (0.8%)	6.2% (3.6%)	1.3% (0.2%)	0.3% (0.2%)	21.0% (25.3%)	70.5% (70.0%)
Ramps/Stairs/Steps	0.9% (1.1%)	16.5% (15.1%)	0.3% (0.1%)	0.0% (0.1%)	26.5% (43.6%)	55.8% (40.1%)
Recreation/Sports	0.4% (0.6%)	2.7% (7.3%)	0.9% (0.2%)	0.0% (0.1%)	23.2% (39.7%)	72.8% (52.1%)
Other	1.4% (1.1%)	10.7% (6.5%)	0.4% (0.1%)	0.5% (0.1%)	28.6% (36.4%)	58.4% (55.7%)
Struck Against/By	**21.9%** (23.6%)	**12.4%** (16.2%)	**12.3%** (9.1%)	**18.4%** (15.5%)	**2.3%** (3.6%)	**32.6%** (31.9%)
Beds	18.6% (22.6%)	11.4% (17.8%)	10.5% (8.8%)	18.1% (10.8%)	3.0% (4.9%)	38.4% (35.0%)
Chairs/Sofas	20.6% (28.0%)	13.6% (17.7%)	4.5% (3.4%)	19.9% (11.1%)	2.6% (4.7%)	38.8% (35.0%)
Furniture (various)	22.7% (24.3%)	10.1% (14.9%)	17.3% (13.8%)	18.3% (15.9%)	2.2% (2.9%)	29.4% (28.1%)
House Structure Surfaces	18.3% (20.1%)	16.1% (20.8%)	16.3% (11.7%)	18.7% (14.4%)	1.7% (3.6%)	29.0% (29.5%)
Outdoor Work/Lawn Tools	26.0% (30.3%)	16.6% (18.1%)	7.3% (6.6%)	22.0% (18.8%)	2.1% (1.9%)	26.0% (24.3%)
Other	23.2% (24.3%)	11.3% (14.5%)	10.6% (7.8%)	17.8% (16.2%)	2.6% (3.7%)	34.6% (33.6%)
Other/Unknown	**7.0%** (5.1%)	**2.2%** (1.1%)	**7.2%** (3.6%)	**3.9%** (2.3%)	**0.1%** (0.0%)	**79.6%** (87.9%)

Source: U.S. Consumer Product Safety Commission: NEISS. Percentages are rounded to the nearest tenth of a percent and therefore may not add up to the total.

Table 21 presents the percent of the estimated annual average number of ED-treated injuries to seniors, and the percent of injuries to adults in parentheses, for each age group and product/hazard subcategory **by primary body part injured**. In most subcategories, percentages of the primary body part injured do not differ much between adults and seniors because the nature of injuries suffered in most subcategories are likely to be roughly the same types of bodily injuries regardless of age. In each Falls subcategory, except for Counters/Sinks Falls and Toilets Falls subcategories, the percentages of adult injuries to the legs or feet are higher than the percentage of senior injuries to the legs or feet.

Table 21: Percent of the Annual Average Estimated Number of ED-Treated Injuries to Seniors Ages 65 Years and Older by Product/Hazard and Body Part, 2022-2023 (Percent of the Annual Average Estimated Number of ED-Treated Injuries to Adults Ages 25 to 64 Years)

Product/Hazard	Arm, Hand	Head, Neck	Leg, Feet	Torso, Shoulder	All Parts of the Body (50% or more)	Other
Percent of All Non-Riding Product Mechanical Injuries	**13.0%** (24.9%)	**36.5%** (22.5%)	**14.1%** (25.3%)	**28.8%** (23.9%)	**2.0%** (1.4%)	**5.7%** (2.0%)
Cut/Pierce	**75.5%** (77.1%)	**3.2%** (3.9%)	**20.2%** (16.7%)	**0.8%** (2.0%)	**0.3%** (0.2%)	**0.0%** (0.1%)
Knives	90.7% (92.4%)	0.2% (0.9%)	8.4% (5.4%)	0.6% (1.3%)	0.1% (0.1%)	0.1% (0.0%)
Saws	87.4% (81.0%)	1.3% (2.1%)	11.1% (16.3%)	0.2% (0.6%)	0.0% (0.0%)	0.0% (0.0%)
Other	66.1% (67.6%)	5.0% (6.0%)	27.5% (23.3%)	1.0% (2.6%)	0.4% (0.3%)	0.0% (0.1%)
Falls	**9.4%** (12.5%)	**42.1%** (32.1%)	**11.3%** (22.6%)	**28.7%** (26.9%)	**1.7%** (1.8%)	**6.8%** (4.2%)
Balconies/Decks/Porches	12.4% (11.0%)	35.5% (26.6%)	14.9% (32.7%)	34.3% (26.7%)	0.8% (1.8%)	2.2% (1.2%)
Bathtubs/Showers	7.3% (8.5%)	39.6% (36.5%)	10.1% (13.3%)	35.3% (36.1%)	2.1% (1.7%)	5.7% (3.9%)
Beach Chairs/Benches/ Bleachers	12.5% (6.3%)	42.3% (44.7%)	7.6% (14.0%)	30.7% (26.1%)	1.6% (3.1%)	5.3% (5.8%)
Beds	7.1% (7.4%)	41.7% (39.9%)	10.2% (14.3%)	28.2% (26.6%)	1.9% (2.4%)	10.9% (9.5%)
Boxes	12.8% (18.8%)	37.4% (23.3%)	14.6% (22.1%)	31.9% (33.7%)	1.5% (0.6%)	1.9% (1.5%)
Brooms/Mops/Vacuums	11.3% (18.4%)	34.7% (27.7%)	12.6% (20.8%)	39.3% (31.7%)	0.2% (0.5%)	1.9% (0.8%)
Carpet/Rug	12.7% (14.8%)	38.2% (31.2%)	13.9% (26.4%)	30.9% (23.7%)	0.9% (1.2%)	3.3% (2.7%)
Chairs/Sofas	7.0% (7.3%)	38.8% (37.0%)	10.6% (14.4%)	31.0% (28.7%)	2.2% (2.8%)	10.4% (9.8%)
Clothing	9.7% (12.4%)	40.1% (31.4%)	8.5% (20.9%)	36.3% (29.8%)	1.0% (1.2%)	4.4% (4.4%)
Counters/Sinks	7.4% (9.2%)	58.1% (62.9%)	5.4% (4.4%)	24.0% (19.7%)	1.6% (2.4%)	3.5% (1.4%)
Elevators/Escalators	13.7% (10.6%)	44.9% (38.4%)	16.3% (25.9%)	20.9% (19.6%)	1.0% (1.4%)	3.2% (4.2%)
Exercise Activity	17.4% (22.1%)	39.2% (23.0%)	15.0% (30.1%)	20.0% (19.8%)	3.9% (2.0%)	4.6% (3.0%)
Floor (no other products)	7.2% (8.1%)	44.3% (41.9%)	9.3% (15.9%)	26.4% (20.2%)	2.6% (4.0%)	10.2% (9.9%)
Footwear	12.8% (15.5%)	40.7% (22.9%)	14.6% (37.4%)	29.3% (22.7%)	0.1% (0.9%)	2.4% (0.6%)
Furniture (various)	8.2% (9.2%)	56.3% (52.5%)	5.8% (10.0%)	26.0% (24.7%)	1.1% (1.6%)	2.6% (1.9%)
House Structure Surfaces	11.6% (13.7%)	53.3% (50.0%)	6.4% (12.2%)	24.4% (18.9%)	0.9% (1.6%)	3.4% (3.5%)
Kitchen	7.0% (12.6%)	44.0% (47.4%)	10.3% (15.9%)	34.6% (19.4%)	0.7% (2.4%)	3.4% (2.4%)
Ladders	12.1% (17.0%)	30.2% (20.5%)	18.1% (26.0%)	38.7% (35.7%)	0.2% (0.2%)	0.8% (0.7%)
Outdoor Work/Lawn Tools	17.7% (16.1%)	38.6% (22.1%)	12.2% (23.1%)	27.4% (34.4%)	1.9% (1.4%)	2.2% (2.9%)
Pet Products	17.0% (23.3%)	37.0% (22.4%)	13.1% (23.9%)	31.9% (29.5%)	0.0% (0.2%)	1.0% (0.8%)
Ramps/Stairs/Steps	11.6% (11.3%)	38.8% (23.4%)	18.1% (33.9%)	28.5% (28.7%)	0.7% (1.2%)	2.3% (1.5%)
Recreation/Sports	23.3% (26.3%)	31.6% (18.4%)	10.6% (26.7%)	27.4% (26.8%)	5.4% (1.0%)	1.8% (0.9%)
Stools	11.4% (10.3%)	41.4% (43.8%)	11.9% (15.0%)	29.1% (22.9%)	1.8% (4.8%)	4.4% (3.2%)
Toilets	6.3% (3.4%)	42.2% (52.9%)	10.5% (8.0%)	27.8% (22.6%)	2.1% (2.5%)	11.1% (10.6%)
Waste	11.6% (18.0%)	45.5% (30.2%)	9.4% (17.5%)	30.6% (29.7%)	0.5% (2.3%)	2.4% (2.2%)
Other	13.8% (17.9%)	40.1% (27.4%)	12.4% (24.2%)	29.9% (27.6%)	1.1% (1.1%)	2.7% (1.9%)

Foreign Body	**37.0%** (23.4%)	**49.3%** (58.5%)	**4.0%** (4.4%)	**9.3%** (13.3%)	**0.4%** (0.2%)	**0.0%** (0.3%)
Overexertion	**7.6%** (7.9%)	**4.3%** (3.8%)	**23.2%** (35.7%)	**58.7%** (49.8%)	**5.2%** (2.3%)	**1.0%** (0.3%)
Beds	5.6% (5.0%)	7.2% (7.9%)	20.8% (24.0%)	65.6% (62.9%)	0.6% (0.1%)	0.2% (0.1%)
Boxes	10.5% (10.9%)	3.6% (4.8%)	6.1% (7.3%)	77.7% (76.1%)	1.8% (0.6%)	0.3% (0.3%)
Chairs/Sofas	4.6% (5.9%)	5.5% (6.8%)	29.7% (23.7%)	59.2% (63.6%)	0.7% (0.0%)	0.2% (0.0%)
Clothing/Footwear	4.5% (5.7%)	2.2% (2.5%)	25.8% (38.4%)	65.8% (52.5%)	1.6% (0.5%)	0.1% (0.4%)
Exercise Activity	2.2% (3.0%)	3.8% (4.5%)	23.1% (34.3%)	54.6% (50.6%)	12.9% (7.0%)	3.4% (0.6%)
Outdoor Work/Lawn Tools	8.1% (10.9%)	4.9% (3.2%)	11.3% (15.8%)	66.9% (64.8%)	7.9% (4.6%)	0.9% (0.6%)
Ramps/Stairs/Steps	1.2% (1.1%)	1.0% (0.9%)	59.4% (76.4%)	32.5% (18.7%)	5.2% (2.6%)	0.7% (0.3%)
Recreation/Sports	6.9% (9.5%)	4.8% (3.0%)	22.7% (46.6%)	53.6% (38.5%)	10.7% (2.0%)	1.2% (0.4%)
Other	13.3% (11.9%)	4.4% (4.2%)	17.5% (23.6%)	62.2% (59.1%)	2.0% (1.1%)	0.6% (0.2%)
Struck Against/By	**23.0%** (29.8%)	**29.8%** (31.3%)	**37.0%** (30.8%)	**9.2%** (7.4%)	**0.6%** (0.4%)	**0.4%** (0.3%)
Beds	8.7% (12.1%)	17.8% (20.7%)	54.6% (62.0%)	7.6% (7.1%)	0.5% (0.1%)	0.4% (0.2%)
Chairs/Sofas	15.2% (17.3%)	11.4% (12.2%)	38.8% (38.6%)	17.5% (8.4%)	1.0% (0.0%)	0.4% (0.1%)
Furniture (various)	15.3% (22.1%)	36.6% (33.6%)	20.3% (15.3%)	8.3% (5.0%)	0.6% (0.5%)	0.4% (0.2%)
House Structure Surfaces	36.9% (51.7%)	30.5% (27.0%)	24.9% (20.3%)	10.7% (4.6%)	0.6% (0.8%)	1.0% (0.6%)
Outdoor Work/Lawn Tools	30.8% (33.0%)	34.5% (41.0%)	39.9% (32.8%)	8.5% (5.3%)	1.0% (0.0%)	0.3% (0.4%)
Other	21.0% (24.5%)	29.9% (33.4%)	54.6% (62.0%)	8.5% (8.8%)	0.5% (0.3%)	0.3% (0.2%)
Other/Unknown	**5.2%** (4.4%)	**30.9%** (68.0%)	**11.1%** (7.2%)	**12.7%** (8.9%)	**22.1%** (6.8%)	**17.9%** (4.6%)

Source: U.S. Consumer Product Safety Commission: NEISS. Percentages are rounded to the nearest tenth of a percent and therefore may not add up to the total.

Table 22 presents the percent of the estimated annual average number of ED-treated, Non-Riding Product Mechanical injuries to seniors, and the percent of injuries to adults in parentheses, for each age group and product/hazard subcategory **by location of injury**. The last column contains the proportion of cases in each subcategory occurring at unspecified locations and should be considered when drawing conclusions from the other percentages for each subcategory in the table.

Incidents occurring at home (i.e., loc = 1), and mobile or manufactured home locations (i.e., loc = 6), are in the Home Locations column. The Other Known Location cases include incidents occurring at farms or ranches (i.e., loc = 2), industrial locations (i.e., loc = 7), and school or daycare locations (i.e., loc = 8).

Incidents that occur at adult care and nursing home facilities are coded in the “Other Public Property” location (i.e., loc = 5). Case narratives which contain “nursi” that are also coded other public property (i.e., loc = 5) should identify the minimum proportion of other public property cases which occurred at nursing home facilities. If one considers nursing home facilities to be a home location, then estimates in Table 22 below for Home locations are underestimates. For example, for Bathtubs/Showers, 66.4 percent of senior Falls injuries occurred at Home locations and 8.2 percent occurred at Other Public Property. However, staff estimates at least 36.4 percent of senior Bathtubs/Showers Falls at Other Public Property locations occurred at nursing homes. For other categories likely to be similarly underestimated, the following are the percentage of all cases coded as Other Public Property in which case

narratives include “nursi”, and are presumed to be the minimum proportion of cases occurring in nursing home facilities:

- Bathtubs/Showers Falls: 36.4 percent of senior injuries and 7.2 percent of adult injuries;
- Beds Falls: 51.7 percent of senior injuries and 26.7 percent of adult injuries;
- Carpet/Rug Falls: 18.6 percent of senior injuries and 2.6 percent of adult injuries;
- Chairs/Sofas Falls: 33.4 percent of senior injuries and 8.6 percent of adult injuries;
- Floor (no other products) Falls: 47.1 percent of senior injuries and 10.6 percent of adult injuries;
- Furniture (various) Falls: 34.3 percent of senior injuries and 5.7 percent of adult injuries;
- House Structure Surfaces Falls: 29.6 percent of senior injuries and 4.6 percent of adult injuries;
- Toilets Falls: 43.0 percent of senior injuries and 8.2 percent of adult injuries; and
- Other Falls: 10.7 percent of senior injuries and 0.9 percent of adult injuries.

When considering that a notable proportion of injuries in each subcategory occurred at unspecified or unknown locations, the percentages below can show the minimum proportion of injuries which occurred at the categorical locations, while also keeping in mind that more senior injuries occurring at nursing homes are among other public property cases than adult injuries occurring at nursing homes.

Table 22: Percent of the Annual Average Estimated Number of ED-Treated Injuries to Seniors Ages 65 Years and Older by Product/Hazard and Location, 2022-2023 (Percent of the Annual Average Estimated Number of ED-Treated Injuries to Adults Ages 25 to 64 Years)

Product/Hazard	Home	Other Public Property	Place of Recreation or Sports	Street or Highway	Other Known Location	Unspecified Location
Percent of All Non-Riding Product Mechanical Injuries	**54.5%** (40.9%)	**16.9%** (8.1%)	**3.0%** (9.4%)	**0.2%** (0.4%)	**0.1%** (0.1%)	**25.3%** (41.0%)
Cut/Pierce	**53.8%** (45.5%)	**2.8%** (2.6%)	**2.3%** (3.0%)	**0.1%** (0.1%)	**0.1%** (0.1%)	**40.9%** (48.7%)
Knives	55.2% (49.8%)	0.9% (1.1%)	0.4% (0.8%)	0.1% (0.1%)	0.0% (0.1%)	43.3% (48.2%)
Saws	54.4% (41.5%)	0.2% (0.8%)	0.4% (0.3%)	0.0% (0.0%)	0.2% (0.0%)	44.8% (57.4%)
Other	53.0% (43.7%)	4.3% (3.7%)	3.6% (4.7%)	0.1% (0.2%)	0.1% (0.1%)	38.9% (47.6%)
Falls	**56.4%** (47.2%)	**19.3%** (11.5%)	**1.9%** (6.4%)	**0.2%** (0.3%)	**0.1%** (0.1%)	**22.2%** (34.5%)
Balconies/Decks/Porches	85.3% (74.7%)	3.1% (5.6%)	1.2% (1.1%)	0.0% (0.2%)	0.1% (0.0%)	10.3% (18.3%)
Bathtubs/Showers	66.4% (69.6%)	8.2% (4.2%)	0.2% (0.3%)	0.1% (0.0%)	0.0% (0.1%)	25.1% (25.7%)
Beach Chairs/Benches/ Bleachers	24.6% (13.0%)	35.0% (33.9%)	13.4% (18.0%)	0.4% (0.3%)	1.9% (2.6%)	24.7% (32.2%)
Beds	55.6% (62.3%)	27.5% (18.8%)	0.0% (0.1%)	0.0% (0.1%)	0.0% (0.0%)	16.9% (18.8%)
Boxes	56.6% (42.1%)	14.9% (13.1%)	0.0% (0.2%)	0.7% (1.2%)	0.0% (0.0%)	27.9% (43.4%)
Brooms/Mops/Vacuums	78.0% (72.9%)	2.5% (4.0%)	0.0% (0.0%)	0.5% (0.0%)	0.0% (0.0%)	19.0% (23.0%)
Carpet/Rug	64.8% (60.5%)	14.5% (11.6%)	0.2% (0.2%)	0.0% (0.0%)	0.1% (0.0%)	20.3% (27.7%)
Chairs/Sofas	55.6% (52.2%)	17.6% (12.5%)	0.3% (0.5%)	0.0% (0.1%)	0.0% (0.3%)	26.5% (34.3%)
Clothing	58.8% (54.5%)	17.6% (11.1%)	0.3% (1.4%)	0.3% (0.9%)	0.0% (0.0%)	23.0% (32.0%)

Counters/Sinks	72.7% (62.8%)	11.4% (9.3%)	0.0% (0.5%)	0.0% (0.2%)	0.0% (0.0%)	15.9% (27.1%)
Elevators/Escalators	2.5% (3.4%)	84.0% (75.5%)	0.5% (0.0%)	0.0% (0.0%)	0.0% (0.1%)	12.9% (21.0%)
Exercise Activity	7.4% (4.4%)	24.7% (18.6%)	38.2% (45.0%)	3.9% (3.9%)	0.2% (0.0%)	25.6% (28.1%)
Floor (no other products)	58.2% (57.9%)	28.8% (19.6%)	0.1% (0.2%)	0.0% (0.0%)	0.0% (0.1%)	12.9% (22.2%)
Footwear	47.5% (36.9%)	19.6% (16.3%)	0.8% (1.8%)	0.8% (2.4%)	0.0% (0.0%)	31.3% (42.6%)
Furniture (various)	63.0% (58.1%)	13.8% (9.5%)	0.2% (0.5%)	0.0% (0.1%)	0.0% (0.1%)	22.9% (31.7%)
House Structure Surfaces	54.6% (49.6%)	19.4% (11.5%)	0.2% (0.5%)	0.0% (0.2%)	0.0% (0.2%)	25.7% (38.2%)
Kitchen	81.1% (73.7%)	3.9% (3.0%)	0.0% (0.0%)	0.0% (0.0%)	0.0% (0.0%)	15.0% (23.3%)
Ladders	57.7% (45.8%)	1.1% (1.4%)	0.1% (0.1%)	0.1% (0.0%)	0.1% (0.1%)	40.9% (52.6%)
Outdoor Work/Lawn Tools	78.5% (64.7%)	3.9% (5.2%)	0.6% (0.5%)	0.3% (0.2%)	0.0% (0.0%)	16.7% (29.4%)
Pet Products	46.2% (42.7%)	10.8% (11.4%)	0.8% (1.4%)	2.8% (1.6%)	0.0% (0.0%)	39.4% (42.9%)
Ramps/Stairs/Steps	52.4% (41.4%)	8.3% (7.2%)	0.6% (0.8%)	0.2% (0.1%)	0.2% (0.1%)	38.4% (50.4%)
Recreation/Sports	9.9% (4.0%)	7.8% (6.5%)	64.2% (63.8%)	0.5% (0.6%)	0.1% (0.2%)	17.5% (24.8%)
Stools	44.5% (35.3%)	21.6% (31.2%)	0.4% (0.0%)	0.0% (0.0%)	0.0% (0.1%)	33.5% (33.4%)
Toilets	61.2% (65.1%)	14.3% (9.4%)	0.1% (0.2%)	0.0% (0.0%)	0.0% (0.1%)	24.4% (25.2%)
Waste	71.8% (57.1%)	7.2% (15.7%)	0.3% (1.2%)	3.4% (3.0%)	0.0% (0.0%)	17.3% (23.1%)
Other	52.6% (39.0%)	18.3% (15.2%)	3.0% (7.6%)	0.8% (1.0%)	0.1% (0.2%)	25.1% (37.0%)
Foreign Body	**43.4% (36.3%)**	**3.9% (3.4%)**	**0.5% (0.7%)**	**0.3% (0.2%)**	**0.0% (0.1%)**	**52.0% (59.4%)**
Overexertion	**41.7% (29.9%)**	**7.4% (5.8%)**	**13.1% (19.9%)**	**0.4% (0.5%)**	**0.1% (0.2%)**	**37.4% (43.7%)**
Beds	64.9% (68.8%)	8.4% (3.7%)	0.0% (0.2%)	0.5% (0.1%)	0.0% (0.0%)	26.2% (27.2%)
Boxes	40.8% (34.9%)	6.5% (3.8%)	0.3% (0.1%)	0.1% (0.2%)	0.0% (0.3%)	52.3% (60.6%)
Chairs/Sofas	57.5% (53.7%)	7.2% (4.5%)	0.2% (0.2%)	0.0% (0.1%)	0.0% (0.0%)	35.1% (41.5%)
Clothing/Footwear	48.6% (39.9%)	6.5% (6.7%)	1.0% (0.8%)	0.1% (1.1%)	0.0% (0.0%)	43.8% (51.5%)
Exercise Activity	10.4% (6.2%)	13.4% (8.9%)	24.1% (32.1%)	0.6% (1.6%)	0.3% (0.0%)	51.2% (51.1%)
Outdoor Work/Lawn Tools	77.5% (64.4%)	0.5% (2.3%)	0.2% (0.5%)	0.0% (0.1%)	0.0% (0.0%)	21.8% (32.7%)
Ramps/Stairs/Steps	37.3% (35.4%)	7.6% (5.7%)	2.5% (0.6%)	0.2% (0.0%)	0.0% (0.2%)	52.4% (58.1%)
Recreation/Sports	4.0% (4.3%)	6.0% (4.7%)	67.4% (58.1%)	0.5% (0.2%)	0.0% (0.4%)	22.2% (32.4%)
Other	53.1% (43.6%)	6.9% (6.5%)	1.5% (4.0%)	0.4% (0.4%)	0.0% (0.2%)	38.2% (45.3%)
Struck Against/By	**48.1% (34.5%)**	**9.6% (7.8%)**	**4.0% (11.1%)**	**0.2% (0.5%)**	**0.2% (0.2%)**	**38.0% (45.9%)**
Beds	58.2% (64.3%)	13.3% (7.3%)	0.5% (0.0%)	0.0% (0.0%)	0.0% (0.1%)	27.9% (28.3%)
Chairs/Sofas	49.0% (51.7%)	11.5% (4.2%)	0.2% (0.7%)	0.0% (0.1%)	0.0% (0.2%)	39.3% (43.1%)
Furniture (various)	56.0% (49.7%)	8.2% (5.9%)	0.6% (0.3%)	0.0% (0.0%)	0.0% (0.1%)	35.2% (44.0%)
House Structure Surfaces	49.6% (39.6%)	11.4% (10.3%)	0.4% (0.6%)	0.0% (0.1%)	0.2% (0.1%)	38.4% (49.3%)
Outdoor Work/Lawn Tools	66.5% (53.4%)	1.0% (3.4%)	0.4% (0.5%)	0.2% (1.2%)	0.0% (0.0%)	31.8% (41.5%)
Other	42.3% (26.7%)	9.5% (7.6%)	7.3% (18.4%)	0.4% (0.7%)	0.3% (0.2%)	40.1% (46.4%)
Other/Unknown	**61.4% (28.4%)**	**13.9% (7.7%)**	**6.2% (26.8%)**	**0.3% (0.5%)**	**0.0% (0.0%)**	**18.3% (36.5%)**

Source: U.S. Consumer Product Safety Commission: NEISS. Percentages are rounded to the nearest tenth of a percent and therefore may not add up to the total. Incidents that occur at adult care and nursing home facilities are in the “Other Public Property” location.

Table 23 presents the percent of the estimated annual average number of ED-treated, Non-Riding Product Mechanical injuries to seniors, and the percent of injuries to adults in parentheses, for each age group and product/hazard subcategory **by race**, based only on cases where the race of the individual is known. Cases where the race of the individual is unknown are *not* considered in the percentages in Table 23. Among all estimated annual average number of ED-treated injuries, in 28.3 percent of senior injuries and in 23.5 percent of adult injuries the race is unknown.

The first row in the table shows the U.S. population shares for race for the adult and senior age groups, which can be used to compare to percentages of the same age groups in the table to see if percentages of ED-treated injuries for each age group and race are higher, lower, or about the same as the percentages seen in the U.S. population.

While accounting for 83.0 percent of seniors in the U.S. population, White seniors accounted for at least 90.3 percent of senior injuries in the following subcategories:

- Balcony/Deck/Porch Falls (92.1 percent);
- Boxes Falls (90.3 percent);
- Chairs/Sofa Overexertion (90.8 percent);
- Exercise Activity Falls (91.5 percent);
- Outdoor Work/Lawn Tools Falls (92.8 percent);
- Outdoor Work/Lawn Tools Struck Against/By (93.9 percent);
- Pet Products Falls (93.7 percent);
- Recreation/Sports Falls (90.4 percent); and
- Saws Cut/Pierce (94.6 percent).

The subcategories with the smallest percentage of White senior injuries are the Boxes Overexertion (77.8 percent) and Elevator/Escalator Falls (77.1 percent) subcategories.

While accounting for 9.9 percent of seniors in the U.S. population, Black seniors accounted for at least 15.5 percent of senior injuries in the following subcategories:

- Beds Struck Against/By (17.1 percent);
- Boxes Overexertion (18.7 percent);
- Clothing/Footwear Overexertion (16.4 percent);
- Elevator/Escalator Falls (17.3 percent); and
- Foreign Body (15.5 percent).

The subcategories with the smallest percentage of Black senior injuries are the Exercise Activity Falls (4.5 percent), Outdoor Work/Lawn Tools Falls (4.4 percent), Outdoor Work/Lawn Tools Struck Against/By (4.9 percent), and Pet Products Falls (4.7 percent), and Saws Cut/Pierce (2.4 percent) subcategories.

While accounting for 5.1 percent of seniors in the U.S. population, Asian seniors accounted for at least 2.4 percent of senior injuries in the following subcategories:

- Brooms/Mops/Vacuums Falls (2.8 percent);
- Foreign Body (2.9 percent); and
- House Structure Surface Struck Against/By (2.4 percent).

The subcategories with the smallest percentage of Asian senior injuries are the outdoor work or tool overexertion injuries (0.4 percent) and pet-related falls (0.4 percent).

While accounting for 0.8 percent of seniors in the U.S. population, the only subcategory in which American Indians or Alaskan Natives accounted for more than 0.8 percent of senior injuries is in the Beach Chairs/Benches/Bleachers Falls (1.0 percent) subcategory.

While accounting for 0.2 percent of seniors in the U.S. population, the only subcategories in which Native Hawaiian or Pacific Islanders accounted for more than 0.2 percent of senior injuries is Boxes Falls (0.3 percent), Counters/Sinks Falls (0.5 percent), Outdoor Work/Lawn Tools Overexertion (0.5 percent), and Waste Falls (0.5 percent) subcategories.

While accounting for 1.1 percent of seniors in the U.S. population, the only subcategory in which Multiracial or Other Known Races accounted for more than 2.0 percent of senior injuries are the Boxes Overexertion (2.2 percent),Elevator/Escalator Falls (3.2 percent), and Saws Cut/Pierce (2.1 percent) subcategories.

Table 23: Percent of the Annual Average Estimated Number of ED-Treated Injuries to Seniors Ages 65 Years and Older by Product/Hazard and Race and U.S. Population, 2022-2023 (Percent of the Annual Average Estimated Number of ED-Treated Injuries to Adults Ages 25 to 64 Years)

Product/Hazard	White	Black/African American	Asian	American Indian/Alaska Native	Native Hawaiian/Pacific Islander	Multiracial/Other Known Races
Percent in the U.S. Population	**83.0%** (75.3%)	**9.9%** (13.9%)	**5.1%** (7.0%)	**0.8%** (1.3%)	**0.2%** (0.3%)	**1.1%** (2.2%)
Percent of All Non-Riding Product Mechanical Injuries	**86.7%** (71.0%)	**10.3%** (23.3%)	**1.4%** (1.8%)	**0.3%** (0.7%)	**0.1%** (0.2%)	**1.2%** (2.9%)
Cut/Pierce	**89.6%** (75.4%)	**7.9%** (18.3%)	**1.2%** (2.2%)	**0.2%** (0.7%)	**0.1%** (0.3%)	**1.0%** (3.1%)
Knives	88.9% (74.8%)	9.0% (17.9%)	1.5% (2.9%)	0.2% (0.6%)	0.2% (0.3%)	0.2% (3.5%)
Saws	94.6% (86.8%)	2.4% (7.5%)	0.8% (1.4%)	0.0% (0.5%)	0.1% (0.1%)	2.1% (3.8%)
Other	88.6% (74.0%)	8.9% (20.3%)	1.2% (1.9%)	0.3% (0.8%)	0.0% (0.2%)	0.9% (2.8%)
Falls	**87.0%** (72.1%)	**10.0%** (22.5%)	**1.5%** (1.7%)	**0.3%** (0.7%)	**0.1%** (0.2%)	**1.2%** (2.8%)
Balconies/Decks/Porches	92.1% (77.7%)	6.4% (18.3%)	0.6% (0.8%)	0.3% (0.9%)	0.0% (0.3%)	0.5% (2.1%)
Bathtubs/Showers	83.7% (69.7%)	12.6% (24.6%)	1.7% (1.4%)	0.4% (0.8%)	0.2% (0.1%)	1.4% (3.4%)
Beach Chairs/Benches/ Bleachers	86.2% (63.4%)	9.9% (30.0%)	1.4% (0.5%)	1.0% (2.1%)	0.0% (0.0%)	1.6% (4.1%)
Beds	83.4% (68.3%)	13.5% (27.3%)	1.6% (1.5%)	0.4% (0.8%)	0.1% (0.1%)	1.0% (1.9%)
Boxes	90.3% (74.8%)	8.0% (22.2%)	0.9% (1.0%)	0.3% (1.0%)	0.3% (0.0%)	0.2% (1.0%)
Brooms/Mops/Vacuums	89.2% (70.9%)	7.0% (23.8%)	2.8% (2.2%)	0.0% (0.2%)	0.0% (0.2%)	0.9% (2.7%)
Carpet/Rug	89.0% (78.0%)	8.9% (19.3%)	1.0% (0.9%)	0.3% (0.2%)	0.0% (0.0%)	0.7% (1.7%)
Chairs/Sofas	86.9% (71.2%)	9.8% (23.6%)	1.6% (2.0%)	0.4% (0.5%)	0.1% (0.3%)	1.2% (2.4%)
Clothing	89.7% (74.6%)	8.3% (20.5%)	0.8% (1.6%)	0.3% (0.4%)	0.0% (0.0%)	0.9% (2.9%)
Counters/Sinks	87.8% (76.5%)	8.6% (17.9%)	0.9% (1.9%)	0.7% (1.0%)	0.5% (0.0%)	1.4% (2.7%)

Elevators/Escalators	77.1% (55.5%)	17.3% (39.1%)	1.6% (3.1%)	0.7% (0.2%)	0.1% (0.0%)	3.2% (2.1%)
Exercise Activity	91.5% (82.0%)	4.5% (11.6%)	2.3% (3.5%)	0.3% (0.6%)	0.0% (0.4%)	1.5% (1.9%)
Floor (no other products)	87.9% (73.6%)	9.2% (21.1%)	1.1% (1.3%)	0.2% (0.8%)	0.1% (0.2%)	1.5% (3.1%)
Footwear	86.7% (72.5%)	9.8% (22.9%)	1.6% (1.7%)	0.3% (0.8%)	0.1% (0.2%)	1.4% (1.9%)
Furniture (various)	88.9% (75.6%)	8.1% (19.4%)	1.5% (1.7%)	0.3% (1.0%)	0.1% (0.2%)	1.1% (2.2%)
House Structure Surfaces	88.3% (69.7%)	8.8% (25.4%)	1.5% (1.5%)	0.4% (0.8%)	0.1% (0.2%)	1.0% (2.4%)
Kitchen	88.7% (75.3%)	9.3% (19.3%)	0.8% (1.3%)	0.5% (1.6%)	0.0% (0.9%)	0.7% (1.6%)
Ladders	88.4% (78.5%)	7.4% (13.5%)	2.2% (2.1%)	0.4% (0.6%)	0.0% (0.2%)	1.6% (5.1%)
Outdoor Work/Lawn Tools	92.8% (85.6%)	4.4% (10.5%)	1.6% (1.5%)	0.4% (0.3%)	0.1% (0.2%)	0.7% (2.0%)
Pet Products	93.7% (89.5%)	4.7% (7.3%)	0.4% (1.3%)	0.3% (0.5%)	0.0% (0.3%)	0.9% (1.0%)
Ramps/Stairs/Steps	85.2% (66.9%)	11.4% (27.9%)	1.8% (1.4%)	0.3% (0.6%)	0.1% (0.2%)	1.1% (3.0%)
Recreation/Sports	90.4% (74.3%)	6.4% (18.2%)	1.8% (3.9%)	0.0% (0.7%)	0.2% (0.2%)	1.2% (2.8%)
Stools	88.4% (76.9%)	8.8% (19.3%)	1.7% (1.9%)	0.1% (0.1%)	0.0% (0.1%)	1.0% (1.8%)
Toilets	86.7% (75.7%)	10.6% (19.5%)	1.4% (1.5%)	0.3% (0.8%)	0.1% (0.0%)	1.0% (2.4%)
Waste	88.3% (80.1%)	7.1% (16.2%)	2.1% (1.4%)	0.3% (0.5%)	0.5% (0.0%)	1.7% (1.7%)
Other	88.3% (74.8%)	8.9% (19.4%)	1.4% (1.5%)	0.3% (1.0%)	0.1% (0.1%)	1.1% (3.2%)
Foreign Body	**79.9% (69.1%)**	**15.5% (24.7%)**	**2.9% (1.8%)**	**0.1% (0.6%)**	**0.0% (0.2%)**	**1.6% (3.5%)**
Overexertion	**84.1% (67.5%)**	**13.1% (26.9%)**	**1.2% (2.0%)**	**0.4% (0.7%)**	**0.1% (0.3%)**	**1.0% (2.7%)**
Beds	85.0% (66.7%)	12.4% (29.5%)	1.4% (1.2%)	0.4% (0.8%)	0.2% (0.0%)	0.7% (1.8%)
Boxes	77.8% (66.8%)	18.7% (26.8%)	1.4% (2.3%)	0.0% (0.7%)	0.0% (0.0%)	2.2% (3.4%)
Chairs/Sofas	90.8% (73.5%)	7.1% (21.7%)	0.8% (1.1%)	0.6% (1.2%)	0.0% (0.2%)	0.7% (2.3%)
Clothing/Footwear	81.9% (67.4%)	16.4% (27.7%)	0.8% (1.0%)	0.0% (0.4%)	0.0% (0.7%)	0.9% (2.9%)
Exercise Activity	82.9% (63.5%)	14.6% (30.7%)	1.5% (2.1%)	0.5% (0.7%)	0.0% (0.3%)	0.5% (2.7%)
Outdoor Work/Lawn Tools	88.9% (81.8%)	8.4% (15.0%)	0.4% (1.4%)	0.8% (0.4%)	0.5% (0.0%)	1.0% (1.4%)
Ramps/Stairs/Steps	83.1% (67.4%)	14.1% (26.4%)	1.3% (2.2%)	0.4% (0.7%)	0.1% (0.5%)	1.0% (2.9%)
Recreation/Sports	84.8% (60.2%)	12.7% (32.3%)	1.8% (3.4%)	0.1% (0.7%)	0.0% (0.3%)	0.6% (3.1%)
Other	83.0% (72.5%)	14.1% (22.8%)	1.1% (1.1%)	0.5% (0.7%)	0.1% (0.1%)	1.2% (2.7%)
Struck Against/By	**85.1% (68.3%)**	**11.5% (25.8%)**	**1.6% (1.8%)**	**0.4% (0.8%)**	**0.2% (0.2%)**	**1.1% (3.0%)**
Beds	79.9% (63.3%)	17.1% (31.6%)	1.3% (1.0%)	0.6% (0.5%)	0.0% (0.3%)	1.1% (3.3%)
Chairs/Sofas	89.8% (66.5%)	8.8% (26.0%)	1.1% (2.1%)	0.2% (2.0%)	0.0% (0.1%)	0.2% (3.4%)
Furniture (various)	83.0% (67.8%)	13.3% (26.3%)	2.0% (1.8%)	0.3% (0.7%)	0.0% (0.2%)	1.4% (3.1%)
House Structure Surfaces	83.0% (61.6%)	12.2% (33.3%)	2.4% (1.8%)	0.4% (0.7%)	0.1% (0.2%)	1.9% (2.4%)
Outdoor Work/Lawn Tools	93.9% (81.1%)	4.9% (13.2%)	1.2% (0.4%)	0.0% (1.8%)	0.0% (0.1%)	0.0% (3.4%)
Other	85.9% (70.7%)	11.1% (23.2%)	1.4% (1.9%)	0.5% (0.8%)	0.2% (0.2%)	0.9% (3.2%)
Other/Unknown	**88.2% (70.5%)**	**8.9% (23.7%)**	**1.4% (1.3%)**	**0.4% (0.4%)**	**0.1% (0.5%)**	**0.9% (3.6%)**

Source: U.S. Consumer Product Safety Commission: NEISS. Percentages are rounded to the nearest tenth of a percent and therefore may not add up to the total. The percentages in Table 23 exclude cases where the race of the patient is not known. In 28.3 percent of all senior cases and in 23.5 percent of all adult cases, the race of the patient is not known, and these cases are excluded from the percentages of known race patients calculated in Table 23.

Table 24 presents the percent of the estimated annual average number of ED-treated injuries to seniors, and the percent of injuries to adults in parentheses, for each age group and product/hazard subcategory **by whether individuals are Hispanic**, based on cases where it is known if the patient is or is not Hispanic. Cases where it is unknown whether the individual is Hispanic or not are not considered in the percentages in Table 24. Among all estimated annual average number of ED-treated injuries, in 32.3 percent of senior injuries and in 27.2 percent of adult injuries it is unknown whether the patient is Hispanic or not.

The first row in the table shows the U.S. population percentages for Hispanics and non-Hispanics for the adult and senior age groups, which can be used to compare to percentages of the same age groups in the table to see if percentages of ED-treated injuries for each age group are higher, lower, or about the same as the percentages seen in the U.S. population. Notice that, when comparing the percentages of injuries in each group to their corresponding population share, a larger proportion of adults in the U.S. population are Hispanic (18.9 percent), compared to the proportion of seniors in the U.S. population who are Hispanic (9.3 percent).

The percentages of senior injuries that are Hispanic individuals are lower than the percentage of Hispanics in the U.S. population in every product/hazard subcategory, and in most the percent of injuries is less than half the percent of Hispanics in the population. The percentage of adult injuries that are to Hispanic individuals is also lower than the percentage of Hispanics in the U.S. population in every subcategory. While 9.3 percent of the senior population is Hispanic, the only product/hazard subcategories where at least six percent of ED-treated injuries were to Hispanic individuals are the Brooms/Mops/Vacuums Falls (7.5 percent of injuries are to Hispanics), Foreign Body (7.0 percent), Boxes Overexertion (6.3 percent), Chairs/Sofas Struck Against/By (6.1 percent), and Bathtubs/Showers Falls (6.0 percent).

Table 24: Percent of the Annual Average Estimated Number of ED-Treated Injuries to Seniors Ages 65 Years and Older by Product/Hazard and a Comparison of Hispanic and Non-Hispanic Seniors With the U.S. Population, 2022-2023 (Percent of the Annual Average Estimated Number of ED-Treated Injuries to Adults Ages 25 to 64 Years)

Product/Hazard	Hispanic	Non-Hispanic
Percent in the U.S. Population	**9.3%** (18.9%)	**90.7%** (81.1%)
Percent of All Non-Riding Product Mechanical Injuries	**3.7%** (9.9%)	**96.3%** (90.1%)
Cut/Pierce	**3.5%** (11.1%)	**96.5%** (88.9%)
Knives	3.5% (11.5%)	96.5% (88.5%)
Saws	3.2% (12.1%)	96.8% (87.9%)
Other	3.5% (10.7%)	96.5% (89.3%)
Falls	**3.8%** (9.2%)	**96.2%** (90.8%)
Balconies/Decks/Porches	1.4% (5.7%)	98.6% (94.3%)
Bathtubs/Showers	6.0% (13.4%)	94.0% (86.6%)
Beach Chairs/Benches/Bleachers	4.1% (10.3%)	95.9% (89.7%)

Beds	4.1% (8.3%)	95.9% (91.7%)
Boxes	1.5% (10.3%)	98.5% (89.7%)
Brooms/Mops/Vacuums	7.5% (17.7%)	92.5% (82.3%)
Carpet/Rug	2.8% (6.0%)	97.2% (94.0%)
Chairs/Sofas	3.6% (7.1%)	96.4% (92.9%)
Clothing	3.9% (7.4%)	96.1% (92.6%)
Counters/Sinks	4.3% (7.7%)	95.7% (92.3%)
Elevators/Escalators	5.7% (10.9%)	94.3% (89.1%)
Exercise Activity	2.8% (8.7%)	97.2% (91.3%)
Floor (no other products)	3.9% (8.7%)	96.1% (91.3%)
Footwear	4.1% (9.3%)	95.9% (90.7%)
Furniture (various)	3.3% (7.5%)	96.7% (92.5%)
House Structure Surfaces	4.1% (8.5%)	95.9% (91.5%)
Kitchen	2.0% (6.7%)	98.0% (93.3%)
Ladders	4.7% (15.8%)	95.3% (84.2%)
Outdoor Work/Lawn Tools	2.6% (6.7%)	97.4% (93.3%)
Pet Products	2.9% (5.4%)	97.1% (94.6%)
Ramps/Stairs/Steps	3.6% (9.2%)	96.4% (90.8%)
Recreation/Sports	2.5% (8.9%)	97.5% (91.1%)
Stools	2.6% (6.5%)	97.4% (93.5%)
Toilets	3.3% (8.7%)	96.7% (91.3%)
Waste	4.1% (10.7%)	95.9% (89.3%)
Other	3.5% (9.5%)	96.5% (90.5%)
Foreign Body	**7.0% (12.7%)**	**93.0% (87.3%)**
Overexertion	**3.5% (9.6%)**	**96.5% (90.4%)**
Beds	3.8% (9.7%)	96.2% (90.3%)
Boxes	6.3% (10.7%)	93.7% (89.3%)
Chairs/Sofas	1.9% (9.7%)	98.1% (90.3%)
Clothing/Footwear	5.1% (11.0%)	94.9% (89.0%)
Exercise Activity	3.1% (9.4%)	96.9% (90.6%)
Outdoor Work/Lawn Tools	1.8% (6.2%)	98.2% (93.8%)
Ramps/Stairs/Steps	4.7% (9.9%)	95.3% (90.1%)
Recreation/Sports	2.1% (10.6%)	97.9% (89.4%)
Other	4.0% (8.9%)	96.0% (91.1%)
Struck Against/By	**3.7% (10.5%)**	**96.3% (89.5%)**
Beds	1.6% (9.7%)	98.4% (90.3%)
Chairs/Sofas	6.1% (8.5%)	93.9% (91.5%)
Furniture (various)	3.4% (10.4%)	96.6% (89.6%)
House Structure Surfaces	4.2% (10.1%)	95.8% (89.9%)
Outdoor Work/Lawn Tools	2.1% (10.8%)	97.9% (89.2%)

Other	3.8% (10.7%)	96.2% (89.3%)
Other/Unknown	**3.0% (14.3%)**	**97.0% (85.7%)**

Source: U.S. Consumer Product Safety Commission: NEISS. Percentages are rounded to the nearest tenth of a percent and therefore may not add up to the total. The percentages in Table 24 exclude cases where it is unknown whether the patient is Hispanic. In 32.3 percent of all senior cases and in 27.2 percent of all adult cases, it is unknown whether the patient is Hispanic, and these cases are excluded from the percentages of known race patients calculated in Table 24.

CDC NCHS Mortality Data Death Estimates

Product/Hazard Category Analysis

Aside from product or hazard descriptions defined by ICD-10 codes, for NCHS mortality data there are no narratives to provide additional details about products, hazards, or incident scenarios which describe the types of fatalities in each category. Below are summaries of the ICD-10 code descriptions which make up each product/hazard category in Table 25 through Table 33. Refer to Table 41 in Appendix C for a complete list of ICD-10 codes, product/hazard descriptions, and category placement, for all ICD-10 codes where at least a proportion of deaths coded under each of these codes involves a consumer product in some capacity, determined by the special studies described above. Recall that different ICD-10 codes or product/hazards have different weights, which represent the percentage of cases which include consumer products for a given ICD-10 code, as determined by CPSC special studies. Descriptions for each fatality category are in Appendix D.

Non-Mechanical Hazard Tier

Non-Mechanical hazard tier fatalities include the following categories: Fire-Related, Burns - Contact with Hot Objects, Electric Shock, Drowning, Explosion, Poisoning, and Suffocation. Among the 41,089 annual average fatalities to seniors, 2,869 (7 percent) are due to Non-Mechanical hazards.

Riding Consumer Products Tier

Riding Consumer Products tier fatalities include the following categories: Animal Riding, Bicycles, and Other Riding Products (except for micromobility products). Among the 41,089 annual average fatalities to seniors, 571 (1 percent) are due to Riding Consumer Products.

Non-Riding Product Mechanical Hazard Tier

Non-Riding Product Mechanical hazard tier fatalities include the following categories: Cut/Pierce, Entrapment, Falls, Foreign Body, Machinery, Overexertion, and Struck Against/By. Among the 41,089 annual average fatalities to seniors, 34,894 (85 percent) are due to Non-Riding Product Mechanical hazards.

Other/Unknown Product/Hazard Tier

Fatalities that do not otherwise fall under any of the categories above are grouped together in the Other/Unknown tier, which account for an annual average 2,755 fatalities to seniors (7 percent).

Product/Hazard Category Fatality Analysis

Some categories in Table 25 have smaller estimated death counts and should be interpreted with caution because percentages based on small estimates can be misleading. The total annual average estimates for each category, seen in Table 25, should be considered when interpreting percentage comparisons among groups such as by sex, location of incident or location of death relative to place of residence, race, or Hispanic ethnicity (Table 27; Table 30 through Table 33).

For example, seen in Table 25, among deaths to seniors, there are only an estimated annual average of five Overexertion deaths, 11 Foreign Body deaths, and 15 Electric Shock deaths, so when dividing these estimates up to compare the proportion of female and male deaths (or other comparisons), these small values do not provide as meaningful a comparison as categories with larger estimated numbers of deaths, such as the Falls category, where there are an estimated annual average 34,514 deaths.

There are an estimated annual average 41,089 fatalities to seniors ages 65 years and older, and an estimated annual average 12,097 fatalities to adults ages 25 to 64 years old associated with consumer products in the U.S., based on the years 2020 and 2022. Among the estimated annual average number of fatalities to seniors 2,869 (7.0 percent) are due to Non-Mechanical hazards; 571 (1.4 percent) are due to Riding Consumer Products; 34,894 (84.9 percent) are due to non-riding consumer products with mechanical hazards; and 2,755 (6.7 percent) are due to Other/Unknown products or hazards. Falls is the category with the most deaths to seniors, accounting for an estimated annual average 34,514 fatalities annually, or 84 percent of all senior fatalities.

Table 25 shows the estimated annual average number of fatalities **by age group** and product/hazard category. The proportion of deaths to seniors in each age group are shown for each category and can be compared to their corresponding U.S. population proportions to identify disproportionality.

Note that since the estimated annual average number of deaths in Table 25 are estimates rounded to the nearest one death and the percentages of senior fatalities in each category are based on unrounded estimates, percentages in the table may not sum to expectations. For example, there are an estimated two annual Overexertion deaths to seniors ages 85 years and older, and an estimated five annual Overexertion deaths to all seniors. By using the unrounded estimates (2.04 / 5.20 = 0.39), 39 percent of the estimated annual Overexertion deaths to seniors are to seniors ages 85 years and older, whereas using the two rounded estimates in Table 25 computes as 40 percent (2 / 5 = 0.40) of senior Overexertion deaths being to seniors ages 85 years and older.

Table 25: Annual Average Estimated Number of Consumer Product-Related Fatalities for Age Groups by Product/Hazard, 2020-2022 (Percent of the Annual Average Estimated Number of Fatalities of Seniors Ages 65 Years for each Senior Age Group)

Product/Hazard	Adults Ages 25 to 64 Years	Seniors Ages 65 Years and Older	65 to 74 Years	75 to 84 Years	85 Years and Older
Annual Average U.S. Population Estimate	**171,868,498**	**56,283,500**	**33,194,240**	**16,610,531**	**6,478,729**
Percent of the U.S. Senior Population			**59.0%**	**29.5%**	**11.5%**
Annual Average Estimated Number of Fatalities	**12,097**	**41,089**	**8,155**	**12,987**	**19,948**
Percent of All Senior Fatalities		**100%**	**19.8%**	**31.6%**	**48.5%**
Non-Mechanical	**4,819**	**2,869**	**1,433 (49.9%)**	**904 (31.5%)**	**533 (18.6%)**
Fire-Related	1,296	1,450	734 (50.6%)	478 (32.9%)	239 (16.4%)
Burns (Contact with Hot Objects)	23	55	20 (37.6%)	19 (34.1%)	15 (28.3%)
Electric Shock	84	15	12 (79.6%)	2 (10.1%)	2 (10.2%)
Drowning	856	524	251 (47.9%)	182 (34.8%)	91 (17.3%)
Explosion	59	43	24 (56.9%)	13 (31.3%)	5 (11.8%)
Poisoning	2,041	338	243 (72.0%)	68 (20.2%)	27 (7.9%)
Suffocation	460	444	148 (33.3%)	142 (31.9%)	155 (34.8%)
Riding Consumer Products	**1,526**	**571**	**340 (59.5%)**	**176 (30.7%)**	**56 (9.7%)**
Animal Riding	34	31	21 (67.4%)	9 (29.3%)	1 (3.3%)
Bicycles	811	325	213 (65.6%)	94 (28.9%)	18 (5.5%)
Other Riding Products (excl. Micromobility Products)	680	215	106 (49.2%)	73 (33.7%)	37 (17.0%)
Non-Riding Product Mechanical	**4,640**	**34,894**	**5,733 (16.4%)**	**11,061 (31.7%)**	**18,100 (51.9%)**
Cut/Pierce	68	87	37 (42.0%)	32 (37.3%)	18 (20.7%)
Entrapment	40	38	18 (47.4%)	11 (29.9%)	9 (22.8%)
Falls	4,239	34,514	5,567 (16.1%)	10,926 (31.7%)	18,021 (52.2%)
Foreign Body	15	11	3 (25.0%)	3 (31.3%)	5 (43.8%)
Machinery	41	44	17 (39.0%)	20 (45.9%)	7 (15.1%)
Overexertion	7	5	2 (39.2%)	1 (21.5%)	2 (39.3%)
Struck Against/By	230	195	89 (45.8%)	67 (34.2%)	39 (20.0%)
Other/Unknown	**1,113**	**2,755**	**649 (23.6%)**	**846 (30.7%)**	**1,260 (45.7%)**

Source: U.S. Center for Disease Control and Prevention (CDC) National Center for Health Statistics (NCHS) mortality data. Estimates are rounded to the nearest one fatality and therefore may not add up to the total.

Deaths due to Falls account for 84.0 percent (34,514 / 41,089 = 0.84) of all senior consumer product-related deaths, while deaths due to Falls account for only 35.0 percent (4,239 / 12,097 = 0.35) of all adult consumer product-related deaths. Among all senior Falls deaths, 52.2 percent (18,021 annual deaths) are to seniors ages 85 years and older, which is more than four times the percent of seniors in the U.S. population who are ages 85 years and older (11.5 percent). The reason that the overall proportions of senior deaths (48.5 percent of senior deaths) are high for the oldest senior age group is because Falls make up the vast majority of all senior deaths and over half of these deaths are to seniors ages 85 years and older.

Seniors ages 85 years and older account for 34.8 percent (155 annual deaths) of all senior Suffocation deaths, while only making up 11.5 percent of seniors in the U.S. population. Among senior Poisoning deaths, seniors ages 65 to 74 years account for 72.0 percent (243 annual deaths) of all senior deaths, while accounting for 59.0 percent of seniors in the U.S. population.

In most of the categories, among all seniors, the proportions of deaths to seniors ages 75 to 84 years are close to the proportion of seniors in the U.S. population ages 75 to 84 years old (29.5 percent), while percentages vary much more for the older and younger senior age groups compared to the respective proportions of seniors in the U.S. population of the same age group among the various product/hazard categories.

Table 26 shows the estimated annual average **death rates per 100,000 people in the U.S. population** for the adult and senior age groups, and, from those, death rate ratios are computed comparing the estimated numbers of senior deaths *with respect to* the estimated numbers of adult deaths per 100,000 in the U.S. population for each age group and for each product/hazard category. The death rate comparisons in Table 26 show how much more frequently the senior age group experiences deaths compared to adults ages 25 to 64 years old given their shares of the U.S. population. (Similarly, the death rate comparisons in Table 28 show how much more frequently the males experience deaths compared to females in the U.S. population). Fatality rates per 100,000 people in the U.S. population are calculated by dividing an annual average estimate by the average number of people in the U.S. population, of the same particular age group as the estimate, and then multiplying the result by 100,000. Since annual average fatality estimates are based on the years 2020 through 2022, using U.S. Census data, population averages over the 3-year period are used in per 100,000 calculations for each age group.

Death rate comparisons quantify the difference between the two age groups, providing a standardized comparison between two groups with dissimilar populations. Interpreting death rate ratios are computed in the same way as injury rate ratios described above in the injury section, with values greater than 1.0 indicating how much more frequently seniors experience deaths than adults for each product/hazard category, values less than 1.0 indicating adults experience deaths more frequently, and values equal to 1.0 indicating that the frequency of adult and senior deaths are about the same.

Seniors experience about 61.3 deaths per every 100,000 seniors in the U.S. population due to Falls, compared to about 2.5 Falls deaths per every 100,000 adults in the U.S. population. Note that the death rate ratio value found by using rounded per 100,000 Falls estimates for seniors and adults from Table 26 (61.3 and 2.5, respectively) produce a different death rate ratio value (61.3 / 2.5 = 24.5) than is listed (24.9), as the latter is computed from unrounded estimates. Unrounded estimates are used in all per 100,000 and death rate ratio

calculations in this report, so calculations using rounded table estimates may lead to slightly different results than those shown in the tables. From this, the ratio of non-fall deaths for seniors with respect to adults can be calculated as follows from Table 25: (41,089 - 34,514) / 56,283,500 * 100,000 divided by (12,097 - 4,239) / 171,868,498 * 100,000 = 2.56, rounded to 2.6 (which also happens to be the unrounded estimate). Therefore, seniors are 24.9 times as likely to experience a Falls death and 2.6 times as likely to experience a non-Falls death than adults.

The only categories where adults experience deaths more frequently than seniors, or categories with death ratio values less than 1.0, are Electric Shock (injury ratio of 0.5), Poisoning (injury ratio of 0.5), and Struck Against/By (injury ratio of 0.8). Seniors suffer deaths associated with Electric Shock and Poisoning at about 50 percent or half as frequently as adults, and seniors suffer deaths associated with Struck Against/By fatalities about 80 percent as frequently as adults. Adults and seniors are at about the same risk of death associated with Other Riding Products (death ratio rate value is 1.0).

In each of the categories not listed above, seniors experience deaths at a higher rate than adults in the U.S. population. The categories in which seniors are at the most relative risk of death compared to adults are Falls (seniors are 24.9 times the risk of death as adults), Burns [Contact with Hot Objects] (seniors are 7.3 times the risk of death as adults), Cut/Pierce (seniors are 3.9 times the risk of death as adults), and Fire-Related (seniors are 3.4 times the risk of death as adults).

Among all estimated numbers of deaths involving consumer products, seniors ages 85 years and older suffer about 307.9 deaths (of which 278.2 are due to Falls) per 100,000 seniors of the same age in the U.S. population, while seniors ages 75 to 84 years suffer about 78.2 deaths (of which 65.8 are due to Falls) per 100,000 seniors of the same age in the U.S. population, and seniors ages 65 to 74 years suffer about 24.6 (of which 16.8 are due to Falls) per 100,000 seniors of the same age in the U.S. population. Thus, among the Falls category for the three senior age groups, there are more than four times as many Falls deaths per 100,000 people in the population of seniors ages 85 years and older compared to seniors ages 75 to 84 years old and more than 16.5 times as many compared to seniors ages 65 to 74 years. Other than consumer product-related deaths associated with Falls, the product/hazard categories with next highest number of annual senior deaths per 100,000 seniors in the U.S. population are Fire-Related (2.6 deaths per 100,000), Drowning (0.9 deaths per 100,000), and Suffocation (0.8 deaths per 100,000). Factoring in population, there are more deaths per 100,000 seniors ages 85 years and older than to seniors in the younger two age groups associated with Falls, Fire-Related, Drowning, and Suffocation.

Table 26: Death Rate (per 100,000 Population) for Age Groups and Death Rate Ratio Comparisons for Seniors With Respect To Adults by Product/Hazard, 2020-2022

Product/Hazard	Death Rate Ratio for Seniors Compared to Adults	Adults Ages 25 to 64 Years	Seniors Ages 65 Years and Older	65 to 74 Years	75 to 84 Years	85 Years and Older
Per 100,000 Annual Average for All Fatalities	**10.4**	**7.04**	**73.00**	**24.57**	**78.18**	**307.90**
Non-Mechanical	**1.8**	**2.80**	**5.10**	**4.32**	**5.44**	**8.22**
Fire-Related	3.4	0.75	2.58	2.21	2.88	3.68
Burns (Contact with Hot Objects)	7.3	0.01	0.10	0.06	0.11	0.24
Electric Shock	0.5	0.05	0.03	0.04	0.01	0.02
Drowning	1.9	0.50	0.93	0.76	1.10	1.40
Explosion	2.2	0.03	0.08	0.07	0.08	0.08
Poisoning	0.5	1.19	0.60	0.73	0.41	0.41
Suffocation	2.9	0.27	0.79	0.44	0.85	2.39
Riding Consumer Products	**1.1**	**0.89**	**1.02**	**1.02**	**1.06**	**0.86**
Animal Riding	2.7	0.02	0.05	0.06	0.05	0.02
Bicycles	1.2	0.47	0.58	0.64	0.57	0.28
Other Riding Products (excl. Micromobility Products)	1.0	0.40	0.38	0.32	0.44	0.57
Non-Riding Product Mechanical	**23.0**	**2.70**	**62.00**	**17.27**	**66.59**	**279.38**
Cut/Pierce	3.9	0.04	0.15	0.11	0.20	0.28
Entrapment	2.9	0.02	0.07	0.05	0.07	0.13
Falls	24.9	2.47	61.32	16.77	65.78	278.16
Foreign Body	2.2	0.01	0.02	0.01	0.02	0.07
Machinery	3.2	0.02	0.08	0.05	0.12	0.10
Overexertion	2.4	0.00	0.01	0.01	0.01	0.03
Struck Against/By	0.8	0.41	0.35	0.27	0.40	0.60
Other/Unknown	**7.6**	**0.65**	**4.90**	**1.96**	**5.09**	**19.44**

Source: U.S. Center for Disease Control and Prevention (CDC) National Center for Health Statistics (NCHS) mortality data. Per 100,000 estimates are rounded to the nearest tenth and therefore may not add up to the total.

Table 27 presents the percent of the estimated annual average number of **deaths to males, and the percent of deaths to females in parentheses**, for each age group and category, and the U.S. population percentages for males and females for the respective age groups for comparison purposes. If the proportion of male or female deaths is higher than the proportion of males or females in the U.S. population for a particular age group and category, then that sex is at a higher risk than the opposite sex in the U.S. population for that particular age group and category of interest. Note that percentages based on small death estimates can be misleading.

Among *all* senior deaths and all senior Falls deaths, there are higher percentages of male deaths than males in the U.S. population, but the magnitude is largest in the 65 to 74 years age group (62.2 percent of deaths; 60.0 percent of Falls deaths; and 47.1 percent of the population are male), and smallest in the 85 years and older age group (41.1 percent of deaths; 41.0 percent of Falls deaths; and 35.0 percent of the population are male).

There are higher percentages of senior male deaths than their share of the U.S. population in every category for the 65 to 74 years old age group and for the 75 to 84 years old age group, and the only categories where the proportion of senior male deaths ages 85 years and older are lower than their share of the U.S. population (35.0 percent) are Overexertion (23.6 percent of the estimated 2 annual deaths), Entrapment (27.7 percent of the estimated 9 annual deaths), and Foreign Body (28.6 percent of the estimated 5 annual deaths) categories.

The proportion of all adult deaths who are male (70.8 percent) is also much higher than the percent of adult males in the U.S. population (50.2 percent). The proportion of adult male deaths are higher than the proportion of male adults in the U.S. population (50.2 percent) in every category except Animal Riding (44.7 percent), and the next smallest proportion of male fatalities is seen in the Drowning category (60.9 percent).

Table 27: Percent of the Annual Average Estimated Number of Fatalities for Age Groups by Product/Hazard and Sex, 2020-2022 ; Male (Female)

Product/Hazard	Adults Ages 25 to 64 Years	Seniors Ages 65 Years and Older	65 to 74 Years	75 to 84 Years	85 Years and Older
Percent of the U.S. Population Male (Female)	**50.2% (49.8%)**	**44.8% (55.2%)**	**47.1% (52.9%)**	**44.0% (56.0%)**	**35.0% (65.0%)**
Percent of All Fatalities	**70.8% (29.2%)**	**49.3% (50.7%)**	**62.2% (37.8%)**	**53.7% (46.3%)**	**41.1% (58.9%)**
Non-Mechanical	**68.8% (31.2%)**	**59.1% (40.9%)**	**62.8% (37.2%)**	**58.0% (42.0%)**	**51.0% (49.0%)**
Fire-Related	62.0% (38.0%)	58.3% (41.7%)	61.4% (38.6%)	57.2% (42.8%)	51.0% (49.0%)
Burns (Contact with Hot Objects)	62.2% (37.8%)	55.7% (44.3%)	49.9% (50.1%)	64.4% (35.6%)	53.1% (46.9%)
Electric Shock	91.0% (9.0%)	92.0% (8.0%)	90.0% (10.0%)	100.0% (0.0%)	100.0% (0.0%)
Drowning	60.9% (39.1%)	59.0% (41.0%)	60.1% (39.9%)	59.6% (40.4%)	54.8% (45.2%)
Explosion	83.4% (16.6%)	71.0% (29.0%)	76.0% (24.0%)	61.1% (38.9%)	73.7% (26.3%)
Poisoning	74.1% (25.9%)	67.7% (32.3%)	70.5% (29.5%)	61.7% (38.3%)	57.7% (42.3%)
Suffocation	73.6% (26.4%)	53.6% (46.4%)	59.6% (40.4%)	55.2% (44.8%)	46.3% (53.7%)
Riding Consumer Products	**85.0% (15.0%)**	**87.7% (12.3%)**	**87.2% (12.8%)**	**89.4% (10.6%)**	**85.6% (14.4%)**
Animal Riding	44.7% (55.3%)	64.1% (35.9%)	58.1% (41.9%)	74.1% (25.9%)	100.0% (0.0%)
Bicycles	88.0% (12.0%)	90.8% (9.2%)	90.6% (9.4%)	91.8% (8.2%)	87.0% (13.0%)
Other Riding Products (excl. Micromobility Products)	83.6% (16.4%)	86.4% (13.6%)	85.8% (14.2%)	88.1% (11.9%)	84.5% (15.5%)
Non-Riding Product Mechanical	**68.7% (31.3%)**	**48.1% (51.9%)**	**60.7% (39.3%)**	**52.9% (47.1%)**	**41.1% (58.9%)**
Cut/Pierce	86.1% (13.9%)	88.7% (11.3%)	83.2% (16.8%)	91.8% (8.2%)	94.4% (5.6%)
Entrapment	84.7% (15.3%)	62.3% (37.7%)	78.2% (21.8%)	63.6% (36.4%)	27.7% (72.3%)

Falls	67.0% (33.0%)	47.8% (52.2%)	60.0% (40.0%)	52.6% (47.4%)	41.0% (59.0%)
Foreign Body	71.1% (28.9%)	46.9% (53.1%)	50.0% (50.0%)	70.0% (30.0%)	28.6% (71.4%)
Machinery	88.3% (11.7%)	82.3% (17.7%)	94.4% (5.6%)	81.9% (18.1%)	52.5% (47.5%)
Overexertion	74.0% (26.0%)	61.8% (38.2%)	89.6% (10.4%)	81.0% (19.0%)	23.6% (76.4%)
Struck Against/By	88.2% (11.8%)	74.4% (25.6%)	85.4% (14.6%)	72.5% (27.5%)	52.4% (47.6%)
Other/Unknown	**68.4% (31.6%)**	**46.4% (53.6%)**	**61.1% (38.9%)**	**51.8% (48.2%)**	**35.2% (64.8%)**

Source: U.S. Center for Disease Control and Prevention (CDC) National Center for Health Statistics (NCHS) mortality data. Percentages are rounded to the nearest tenth of a percent and therefore may not add up to the total. Total Percentages Include Patients with Other or Unknown Sex.

Table 28 shows comparisons of the estimated annual average numbers of **death rates per 100,000 people in the U.S. population for males and females** along with a death rate ratio comparing the per 100,000 estimates for males *with respect to* the per 100,000 estimates for females for each category.

Death rate ratios greater than 1.0 in Table 28 indicate how much more frequently senior males experience deaths than senior females in the U.S. population for each product/hazard category, ratios less than 1.0 indicate senior females experience deaths more frequently, and ratios equal to 1.0 indicate that the frequency of senior male and female deaths are the same.

Among all senior deaths, there are about 1.2 times as many deaths to males than females. Among all senior deaths, there are more male than female deaths per 100,000 people in the population in all three senior age groups, with about 1.8 times as many deaths to males than females in the 65 to 74 years age group, 1.5 times as many deaths to males than females in the 75 to 84 years age group, and 1.3 times as many deaths to males than females in the 85 years and older age group.

The male-to-female death rate ratio comparisons are similar for senior Falls deaths for all three senior age groups, where, overall, there are about 1.1 times as many deaths to males than females; 1.7 times as many in the 65 to 74 years age group; 1.4 times as many in the 75 to 84 years age group; and 1.3 times as many in the 85 years and older age group.[35]

Senior males compared to females, overall and in each of the three senior age groups, experience more deaths per 100,000 in each category except for seniors ages 85 years and older in the following categories: Entrapment (death ratio of 0.7), Foreign Body (death ratio of 0.7), and Overexertion (death ratio of 0.6).

Among categories where death ratio values can be estimated for all three senior age groups, the category with the biggest disparity among senior males and females is Bicycle deaths, where males ages 65 to 74 years suffer fatalities at 10.8 times the rate, ages 75 to 84 years suffer fatalities at 14.3 times the rate, and ages 85 years and older suffer fatalities at 12.5 times the rate compared to their female counterparts. Among Other Riding Products, males

[35] One may be surprised that the overall death rate ratio of senior males to senior females (1.1) is lower than the individual ones for the separate age groups (1.7, 1.4, and 1.3 for the 65-74, 75-84, and 85+ age groups, respectively), given that the former comprises the latter. This phenomenon, where magnitudes at the subgroup-level are obfuscated or mitigated at the group level, is known as Simpson's Paradox and is why it is important to report both aggregated and disaggregated statistics—especially when population distributions among subgroups vary, as they do here.

ages 65 to 74 years suffer fatalities at 6.8 times the rate, ages 75 to 84 years suffer fatalities at 9.4 times the rate, and ages 85 years and older suffer fatalities at 10.2 times the rate compared to their female counterparts. Other large disparities between senior males compared to senior females exist among seniors ages 85 years and older suffering Cut/Pierce fatalities at 31.6 times the rate, and ages 65 to 74 years suffering Machinery fatalities at 18.8 times the rate.

Table 28: Death Rate (per 100,000 Population) for Age Groups by Sex and Death Rate Ratio Comparisons of Males With Respect To Females by Product/Hazard, 2020-2022; (Male) (Female)

Product/Hazard	Adults Ages 25 to 64 Years	Seniors Ages 65 Years and Older	65 to 74 Years	75 to 84 Years	85 Years and Older
Per 100,000 Annual Average Estimate for All Fatalities Male (Female)	**2.4** (9.92) (4.13)	**1.2** (80.28) (67.09)	**1.8** (32.42) (17.57)	**1.5** (95.39) (64.65)	**1.3** (362.15) (278.74)
Non-Mechanical	**2.2** (3.84) (1.76)	**1.8** (6.73) (3.78)	**1.9** (5.76) (3.03)	**1.8** (7.17) (4.08)	**1.9** (12.00) (6.19)
Fire-Related	1.6 (0.93) (0.58)	1.7 (3.35) (1.95)	1.8 (2.88) (1.62)	1.7 (3.74) (2.20)	1.9 (5.37) (2.77)
Burns (Contact with Hot Objects)	1.6 (0.02) (0.01)	1.6 (0.12) (0.08)	1.1 (0.07) (0.06)	2.3 (0.16) (0.07)	2.1 (0.36) (0.17)
Electric Shock	10.0 (0.09) (0.01)	14.2 (0.05) (0.00)	10.1 (0.07) (0.01)	– (0.02) (0.00)	– (0.07) (0.00)
Drowning	1.5 (0.60) (0.39)	1.8 (1.23) (0.69)	1.7 (0.96) (0.57)	1.9 (1.49) (0.79)	2.3 (2.20) (0.97)
Explosion	5.0 (0.06) (0.01)	3.0 (0.12) (0.04)	3.5 (0.12) (0.03)	2.0 (0.11) (0.06)	5.2 (0.16) (0.03)
Poisoning	2.8 (1.75) (0.62)	2.6 (0.91) (0.35)	2.7 (1.10) (0.41)	2.0 (0.58) (0.28)	2.5 (0.68) (0.27)
Suffocation	2.8 (0.39) (0.14)	1.4 (0.94) (0.66)	1.7 (0.56) (0.34)	1.6 (1.07) (0.68)	1.6 (3.16) (1.97)
Riding Consumer Products	**5.6** (1.50) (0.27)	**8.8** (1.99) (0.23)	**7.6** (1.89) (0.25)	**10.7** (2.15) (0.20)	**11.1** (2.10) (0.19)
Animal Riding	0.8 (0.02) (0.02)	2.2 (0.08) (0.04)	1.6 (0.08) (0.05)	3.6 (0.09) (0.03)	– (0.04) (0.00)
Bicycles	7.2 (0.83) (0.11)	12.1 (1.17) (0.10)	10.8 (1.24) (0.11)	14.3 (1.18) (0.08)	12.5 (0.69) (0.06)
Other Riding Products (excl. Micromobility Products)	5.0 (0.66) (0.13)	7.8 (0.74) (0.09)	6.8 (0.58) (0.09)	9.4 (0.88) (0.09)	10.2 (1.37) (0.13)
Non-Riding Product Mechanical	**2.2** (3.69) (1.70)	**1.1** (66.50) (58.34)	**1.7** (22.23) (12.85)	**1.4** (80.09) (55.97)	**1.3** (328.47) (252.99)
Cut/Pierce	6.2 (0.07) (0.01)	9.7 (0.31) (0.03)	5.5 (0.19) (0.04)	14.2 (0.41) (0.03)	31.6 (0.75) (0.02)
Entrapment	5.5 (0.04) (0.01)	2.0 (0.09) (0.05)	4.0 (0.09) (0.02)	2.2 (0.10) (0.04)	0.7 (0.11) (0.15)
Falls	2.0 (3.29) (1.64)	1.1 (65.35) (58.05)	1.7 (21.34) (12.70)	1.4 (78.65) (55.65)	1.3 (326.48) (252.19)
Foreign Body	2.4 (0.01) (0.01)	1.1 (0.02) (0.02)	1.1 (0.01) (0.01)	3.0 (0.03) (0.01)	0.7 (0.06) (0.08)
Machinery	7.5 (0.04) (0.01)	5.7 (0.14) (0.03)	18.8 (0.10) (0.01)	5.7 (0.23) (0.04)	2.1 (0.15) (0.08)
Overexertion	2.8 (0.01) (0.00)	2.0 (0.01) (0.01)	9.6 (0.01) (0.00)	5.4 (0.01) (0.00)	0.6 (0.02) (0.04)
Struck Against/By	7.4 (0.23) (0.03)	3.6 (0.57) (0.16)	6.6 (0.49) (0.07)	3.3 (0.66) (0.20)	2.0 (0.90) (0.44)
Other/Unknown	**2.1** (0.88) (0.41)	**1.1** (5.07) (4.76)	**1.8** (2.54) (1.44)	**1.4** (5.99) (4.39)	**1.0** (19.57) (19.37)

Source: U.S. Center for Disease Control and Prevention (CDC) National Center for Health Statistics (NCHS) mortality data. Per 100,000 estimates are rounded to the nearest tenth and therefore may not add up to the total.

Table 29 shows the estimated total number of senior fatalities for each category **by year of incident**. There does not appear to be too many major differences in the estimated numbers of deaths observed among the three years for most of the categories. Among all senior deaths, and in most categories, overall deaths increased steadily each year from 2020 through 2022.

Table 29: Estimated Total Number of Fatalities to Seniors Ages 65 Years and Older by Product/Hazard and Year, 2020-2022 (Percent of the Annual Average Estimated Number of Fatalities to Seniors Ages 65 Years and Older)

Product/Hazard	2020	2021	2022	Total
Annual Total Estimated Number of Fatalities (Percent of Total Estimate)	**38,860 (100.0%)**	**41,212 (100.0%)**	**43,196 (100.0%)**	**123,268 (100.0%)**
Non-Mechanical	**2,601 (6.7%)**	**2,963 (7.2%)**	**3,044 (7.0%)**	**8,607 (7.0%)**
Fire-Related	1,251 (3.2%)	1,532 (3.7%)	1,568 (3.6%)	4,351 (3.5%)
Burns (Contact with Hot Objects)	53 (0.1%)	57 (0.1%)	54 (0.1%)	164 (0.1%)
Electric Shock	19 (0.0%)	18 (0.0%)	8 (0.0%)	45 (0.0%)
Drowning	478 (1.2%)	501 (1.2%)	594 (1.4%)	1,573 (1.3%)
Explosion	40 (0.1%)	54 (0.1%)	35 (0.1%)	129 (0.1%)
Poisoning	330 (0.8%)	356 (0.9%)	329 (0.8%)	1,015 (0.8%)
Suffocation	432 (1.1%)	445 (1.1%)	455 (1.1%)	1,332 (1.1%)
Riding Consumer Products	**562 (1.4%)**	**571 (1.4%)**	**581 (1.3%)**	**1,714 (1.4%)**
Animal Riding	36 (0.1%)	27 (0.1%)	29 (0.1%)	92 (0.1%)
Bicycles	317 (0.8%)	319 (0.8%)	340 (0.8%)	976 (0.8%)
Other Riding Products (excl. Micromobility Products)	209 (0.5%)	225 (0.5%)	212 (0.5%)	646 (0.5%)
Non-Riding Product Mechanical	**32,898 (84.7%)**	**34,817 (84.5%)**	**36,967 (85.6%)**	**104,681 (84.9%)**
Cut/Pierce	86 (0.2%)	80 (0.2%)	95 (0.2%)	261 (0.2%)
Entrapment	35 (0.1%)	37 (0.1%)	42 (0.1%)	114 (0.1%)
Falls	32,541 (83.7%)	34,450 (83.6%)	36,550 (84.6%)	103,542 (84.0%)
Foreign Body	10 (0.0%)	12 (0.0%)	10 (0.0%)	32 (0.0%)
Machinery	37 (0.1%)	35 (0.1%)	59 (0.1%)	132 (0.1%)
Overexertion	3 (0.0%)	4 (0.0%)	9 (0.0%)	16 (0.0%)
Struck Against/By	185 (0.5%)	198 (0.5%)	201 (0.5%)	584 (0.5%)
Other/Unknown	**2,800 (7.2%)**	**2,861 (6.9%)**	**2,605 (6.0%)**	**8,266 (6.7%)**

Source: U.S. Center for Disease Control and Prevention (CDC) National Center for Health Statistics (NCHS) mortality data. Estimates and column percentages are rounded and therefore may not add up to the totals.

Table 30 presents the percent of the estimated annual average number of fatalities to seniors, and the percent of fatalities to adults in parentheses, for each age group and category **by location of death**. Incidents occurring at home (i.e., location = 0) and residential institutions (location = 1) are in the Home Locations column. Residential institutions likely include adult care and nursing home facilities. The Other Known Locations include incidents occurring at a school or other institution and public administrative area (i.e., location = 2), trade and service area (i.e., location = 5), industrial and construction area (i.e., location = 6), Farm (i.e., location = 7), and other specified places (i.e., location = 8). Note that percentages based on small estimates can be misleading.

The last column, consisting of the proportion of cases in each category occurring at Unspecified Locations, should be considered when attempting to draw conclusions based on the other percentages for each category in the table. Among all estimated numbers of senior deaths in each tier, 19.6 percent of Non-Mechanical, 98.3 percent of Riding Consumer Products, and 9.3 percent of Non-Riding Product Mechanical injuries leading to deaths occurred at Unspecified Locations. Almost all deaths in the adult and senior age groups involving Riding Consumer Products occurred at Unspecified Locations. Among all deaths, there are far more adult deaths which occurred at Unspecified Locations (33.0 percent) than senior deaths which occurred at Unspecified Locations (16.7 percent), so this makes it difficult to compare the percentages of death locations between the adult and senior age groups in categories where the proportion of deaths which occurred at Unspecified Locations is high.

Among all deaths, and in most categories, a higher proportion of adult deaths (5.9 percent) compared to the proportion of senior deaths (3.0 percent) occurred at Other Known Locations.

A slightly higher proportion of senior Falls deaths occurred at Home (87.6 percent), compared to the proportion of adult Falls deaths occurring at Home (80.8 percent), while the proportion of Falls deaths occurring at Unspecified Locations is 9.3 percent for seniors and 12.6 percent for adults.

The proportions of Fire-Related deaths occurring at home locations (i.e., Home/Resident Institutions) are about the same for the adult (92.2 percent) and senior (93.4 percent) age groups, where the proportion of Fire-Related deaths occurring at Unspecified Locations is 5.6 percent for seniors and 6.0 percent for adults.

Among estimated numbers of Drowning deaths, at least 8.2 percent of seniors and 6.0 percent of adults drowned at a Place of Recreation or Sports, while 10.8 of senior and 17.8 percent of adult drowning deaths occurred at Unspecified Locations, of which it is possible that some of these deaths may have also occurred at a Place of Recreation or Sports.

Table 30: Percent of the Annual Average Estimated Number of Consumer Product-Related Fatalities to Seniors Ages 65 Years and Older by Product/Hazard and Location, 2020-2022 (Percent of the Annual Average Estimated Number of Fatalities to Adults Ages 25 to 64 Years)

Product/Hazard	Home / Resident Institution	Place of Recreation or Sports	Street or Highway	Other Known Location	Unspecified Location
Percent of All Fatalities	**80.1%** (59.4%)	**0.2%** (0.6%)	**0.1%** (1.1%)	**3.0%** (5.9%)	**16.7%** (33.0%)
Non-Mechanical	**75.5%** (68.6%)	**1.5%** (1.1%)	**0.1%** (0.2%)	**3.3%** (6.8%)	**19.6%** (23.3%)
Fire-Related	93.4% (92.2%)	0.0% (0.0%)	0.0% (0.2%)	1.0% (1.6%)	5.6% (6.0%)
Burns (Contact with Hot Objects)	89.9% (91.6%)	0.0% (1.2%)	0.0% (0.0%)	1.0% (1.7%)	9.1% (5.5%)
Electric Shock	87.0% (87.5%)	0.0% (0.0%)	0.0% (0.0%)	4.9% (6.3%)	8.1% (6.3%)
Drowning	70.4% (55.9%)	8.2% (6.0%)	0.0% (0.0%)	10.5% (20.3%)	10.8% (17.8%)
Explosion	91.3% (79.3%)	0.0% (0.0%)	0.0% (2.3%)	4.3% (8.9%)	4.4% (9.5%)
Poisoning	50.2% (55.9%)	0.1% (0.0%)	0.5% (0.3%)	3.7% (4.9%)	45.5% (38.8%)
Suffocation	38.6% (75.9%)	0.0% (0.3%)	0.0% (0.2%)	2.1% (4.7%)	59.2% (18.8%)

Riding Consumer Products	**0.3%** (0.2%)	**0.0%** (0.0%)	**0.9%** (2.6%)	**0.5%** (1.8%)	**98.3%** (95.4%)
Animal Riding	0.0% (0.0%)	0.0% (0.0%)	1.1% (1.0%)	0.0% (0.0%)	98.9% (99.0%)
Bicycles	0.0% (0.0%)	0.0% (0.0%)	0.8% (1.8%)	0.3% (0.5%)	98.9% (97.7%)
Other Riding Products (excl. Micromobility Products)	0.8% (0.4%)	0.0% (0.0%)	1.1% (3.6%)	0.8% (3.4%)	97.4% (92.5%)
Non-Riding Product Mechanical	**87.5%** (80.5%)	**0.1%** (0.2%)	**0.0%** (0.6%)	**3.1%** (6.3%)	**9.3%** (12.4%)
Cut/Pierce	76.0% (67.8%)	0.0% (0.0%)	1.5% (3.7%)	15.3% (15.0%)	7.2% (13.6%)
Entrapment	88.8% (89.6%)	0.0% (0.7%)	0.0% (0.0%)	5.3% (6.0%)	5.8% (3.7%)
Falls	87.6% (80.8%)	0.1% (0.2%)	0.0% (0.5%)	3.0% (5.8%)	9.3% (12.6%)
Foreign Body	40.6% (55.6%)	0.0% (0.0%)	0.0% (0.0%)	3.1% (13.3%)	56.3% (31.1%)
Machinery	81.1% (82.5%)	1.2% (0.0%)	0.0% (0.0%)	14.9% (12.1%)	2.7% (5.4%)
Overexertion	42.3% (25.1%)	0.0% (0.0%)	0.0% (0.0%)	1.3% (2.0%)	56.4% (72.9%)
Struck Against/By	86.0% (79.9%)	0.4% (0.5%)	0.0% (0.4%)	6.7% (10.1%)	6.8% (9.1%)
Other/Unknown	**7.6%** (12.9%)	**0.0%** (0.1%)	**0.6%** (5.1%)	**1.5%** (6.1%)	**90.3%** (75.8%)

Source: U.S. Center for Disease Control and Prevention (CDC) National Center for Health Statistics (NCHS) mortality data. Percentages are rounded to the nearest tenth of a percent and therefore may not add up to the total. Residential institutions likely include adult care and nursing home facilities.

Table 31 presents the percent of the estimated annual average number of fatalities to seniors, and the percent of fatalities to adults in parentheses, for each age group and category **by location of death relative to place of residence**, where the categories are deaths occurring in the same county and same state (i.e., resident = 1), different county in the same state (resident = 2), and a different state (resident = 3).

Among all deaths, a larger proportion of adult deaths (5.8 percent) compared to the proportion of senior deaths (4.4 percent) occurred in a different state, but a larger proportion of senior deaths (24.1 percent) compared to the proportion of adult deaths (20.2 percent) occurred in a different county in the same state. Most categories have similar proportions for adults and seniors regarding death locations relative to home residence.

Table 31: Percent of the Annual Average Estimated Number of Consumer Product-Related Fatalities to Seniors Ages 65 Years and Older by Product/Hazard and Death Location in Proximity to Residence, 2020-2022 (Percent of the Annual Average Estimated Number of Fatalities to Adults Ages 25 to 64 Years)

Product/Hazard	Same State; Same County	Same State; Different County	Different State
Percent of All Fatalities	**71.4%** (74.0%)	**24.1%** (20.2%)	**4.4%** (5.8%)
Non-Mechanical	**78.8%** (83.0%)	**16.4%** (12.5%)	**4.8%** (4.5%)
Fire-Related	75.5% (80.9%)	19.2% (14.7%)	5.3% (4.4%)
Burns (Contact with Hot Objects)	53.2% (50.6%)	38.3% (36.6%)	8.6% (12.7%)
Electric Shock	83.4% (79.9%)	6.3% (16.1%)	10.4% (4.0%)
Drowning	87.8% (77.9%)	7.2% (15.0%)	4.9% (7.1%)

Explosion	48.7% (53.2%)	38.1% (39.7%)	13.2% (7.1%)
Poisoning	86.3% (86.8%)	10.4% (9.5%)	3.3% (3.6%)
Suffocation	78.9% (87.7%)	18.2% (9.4%)	2.9% (2.9%)
Riding Consumer Products	**62.7% (63.9%)**	**28.4% (26.5%)**	**8.9% (9.6%)**
Animal Riding	44.6% (43.7%)	43.5% (41.7%)	12.0% (14.6%)
Bicycles	69.6% (74.5%)	23.6% (19.6%)	6.9% (5.9%)
Other Riding Products (excl. Micromobility Products)	55.0% (52.3%)	33.4% (33.9%)	11.6% (13.9%)
Non-Riding Product Mechanical	**70.9% (69.1%)**	**24.7% (25.1%)**	**4.4% (5.8%)**
Cut/Pierce	71.3% (73.2%)	19.5% (20.4%)	9.2% (6.5%)
Entrapment	85.1% (81.4%)	9.8% (13.2%)	5.1% (5.4%)
Falls	70.9% (68.6%)	24.8% (25.6%)	4.3% (5.8%)
Foreign Body	71.9% (66.7%)	21.9% (31.1%)	6.3% (2.2%)
Machinery	73.3% (80.7%)	24.2% (15.0%)	2.5% (4.3%)
Overexertion	73.1% (56.6%)	17.6% (30.2%)	9.2% (13.3%)
Struck Against/By	71.6% (73.5%)	23.4% (20.5%)	5.0% (6.0%)
Other/Unknown	**72.4% (69.5%)**	**23.8% (24.6%)**	**3.8% (5.9%)**

Source: U.S. Center for Disease Control and Prevention (CDC) National Center for Health Statistics (NCHS) mortality data. Percentages are rounded to the nearest tenth of a percent and therefore may not add up to the total.

Regarding reporting fatalities **by race**, for deaths occurring in 2021 onward, a new set of categories for all NCHS data cases was instituted to capture and record the Race for each person, which are not comparable to years prior to 2021 due to different Race categories. Therefore, when comparing the proportion of estimated deaths by race with the proportion of people in the U.S. population for each age group and category, only the years 2021 and 2022 are used.

Table 32 presents the percent of the estimated annual average number of fatalities to seniors, and the percent of fatalities to adults in parentheses, for each age group and race, for the years 2021 and 2022. The first row in the table shows the U.S. population shares by race for the adult and senior age groups, which can be used to compare to percentages of the same age groups in the table to see if percentages of fatalities for each age group and race are higher, lower, or about the same as the percentages seen in the U.S. population for each product/hazard category.

The percentage of all senior fatalities to Whites are nearly eight percentage points higher (91.1 percent) than the percent of Whites among seniors in the U.S. population (83.3 percent), whereas the percentages of all senior fatalities to each of the other race groups is as low or lower than the percentages of each race group among seniors in the U.S. population.

While accounting for 83.3 percent of seniors in the U.S. population, White seniors accounted for at least 92.2 percent of senior fatalities in the following categories:

- Animal Riding (96.4 percent);
- Cut/Pierce (93.1 percent);

- Electric Shock (92.2 percent);
- Falls (92.2 percent);
- Machinery (96.8 percent);
- Other Riding Products (Excluding Micromobility Products) (95.9 percent); and
- Overexertion (92.3 percent).

The categories with the smallest percentage of White senior fatalities are the Burns [Contact with Hot Objects] (66.4 percent) and Fire-Related (78.6 percent) categories.

While accounting for 9.8 percent of seniors in the U.S. population, Black seniors accounted for at least 18.6 percent of senior fatalities in the following categories:

- Burns [Contact with Hot Objects] (25.8 percent); and
- Fire-Related (18.6 percent).

The categories with the smallest percentage of Black senior fatalities are the Falls (4.1 percent), Machinery (3.0 percent), and Other Riding Products [Excluding Micromobility Products] (2.5 percent) categories.

While accounting for 5.0 percent seniors in the U.S. population, the only categories in which Asians accounted for more than 5.0 percent of fatalities are the following:

- Bicycles (5.5 percent);
- Burns [Contact with Hot Objects] (6.0 percent); and
- Drowning (7.2 percent).

While accounting for 0.8 percent of seniors in the U.S. population, the only categories in which American Indians or Alaskan Natives accounted for more than 0.8 percent of fatalities are the following:

- Burns (Contact with Hot Objects) (0.9 percent);
- Explosion (2.2 percent);
- Fire-Related (0.9 percent); and
- Poisoning (3.3 percent).

While accounting for 0.1 percent of seniors in the U.S. population, the only category in which Native Hawaiian or Pacific Islanders accounted for more than 0.1 percent of fatalities is the Burns [Contact with Hot Objects] (0.9 percent) category.

While accounting for 1.0 percent of seniors in the U.S. population, the only subcategory in which Multiracial or Other Known Races accounted for more than 1.0 percent of fatalities is the Animal Riding (1.8 percent) category.

Table 32: Percent of the Annual Average Estimated Number of Fatalities to Seniors Ages 65 Years and Older by Product/Hazard and Race, 2021-2022 (Percent of the Annual Average Estimated Number of Fatalities to Adults Ages 25 to 64 Years)

Product/Hazard	White	Black/African American	Asian	American Indian/Alaska Native	Native Hawaiian/ Pacific Islander	Multiracial /Other Known Races
Percent in the U.S. Population	**83.3%** (75.6%)	**9.8%** (13.8%)	**5.0%** (6.9%)	**0.8%** (1.3%)	**0.1%** (0.3%)	**1.0%** (2.2%)
Percent of All Fatalities	**91.1%** (81.3%)	**5.2%** (13.1%)	**2.8%** (2.2%)	**0.5%** (2.4%)	**0.1%** (0.1%)	**0.3%** (1.0%)
Non-Mechanical	**80.9%** (78.9%)	**14.7%** (14.8%)	**2.8%** (1.9%)	**1.0%** (3.2%)	**0.1%** (0.1%)	**0.5%** (1.0%)
Fire-Related	78.6% (74.2%)	18.6% (21.4%)	1.6% (1.6%)	0.9% (1.8%)	0.0% (0.1%)	0.3% (1.0%)
Burns (Contact with Hot Objects)	66.4% (57.3%)	25.8% (34.1%)	6.0% (2.1%)	0.9% (4.3%)	0.9% (2.1%)	0.0% (0.0%)
Electric Shock	92.2% (89.6%)	7.8% (4.8%)	0.0% (1.8%)	0.0% (1.8%)	0.0% (0.0%)	0.0% (2.0%)
Drowning	83.0% (77.3%)	8.6% (16.3%)	7.2% (3.3%)	0.6% (2.0%)	0.0% (0.1%)	0.7% (1.0%)
Explosion	88.5% (89.3%)	9.3% (9.0%)	0.0% (0.0%)	2.2% (1.6%)	0.0% (0.0%)	0.0% (0.0%)
Poisoning	82.9% (81.2%)	11.0% (10.8%)	2.1% (1.7%)	3.3% (5.1%)	0.1% (0.1%)	0.5% (1.1%)
Suffocation	85.0% (83.8%)	11.2% (12.0%)	2.5% (1.4%)	0.3% (1.7%)	0.1% (0.2%)	0.9% (1.0%)
Riding Consumer Products	**89.9%** (84.3%)	**5.4%** (10.7%)	**3.5%** (1.9%)	**0.6%** (2.0%)	**0.0%** (0.1%)	**0.6%** (1.0%)
Animal Riding	96.4% (95.2%)	0.0% (0.0%)	1.8% (0.0%)	0.0% (3.2%)	0.0% (0.0%)	1.8% (1.6%)
Bicycles	85.4% (80.9%)	7.7% (13.4%)	5.5% (2.9%)	0.8% (1.6%)	0.0% (0.1%)	0.6% (1.1%)
Other Riding Products (excl. Micromobility Products)	95.9% (88.1%)	2.5% (7.8%)	0.7% (0.8%)	0.5% (2.5%)	0.0% (0.1%)	0.5% (0.8%)
Non-Riding Product Mechanical	**92.2%** (84.4%)	**4.1%** (10.3%)	**2.8%** (2.6%)	**0.4%** (1.6%)	**0.1%** (0.1%)	**0.3%** (1.0%)
Cut/Pierce	93.1% (75.3%)	5.7% (19.9%)	1.1% (1.7%)	0.0% (2.4%)	0.0% (0.0%)	0.0% (0.7%)
Entrapment	89.4% (84.7%)	5.8% (6.6%)	4.1% (2.6%)	0.7% (2.6%)	0.0% (0.0%)	0.0% (3.5%)
Falls	92.2% (84.3%)	4.1% (10.3%)	2.8% (2.7%)	0.4% (1.6%)	0.1% (0.1%)	0.3% (1.0%)
Foreign Body	86.4% (90.0%)	9.1% (10.0%)	4.5% (0.0%)	0.0% (0.0%)	0.0% (0.0%)	0.0% (0.0%)
Machinery	96.8% (96.1%)	3.0% (3.9%)	0.1% (0.0%)	0.0% (0.0%)	0.0% (0.0%)	0.1% (0.0%)
Overexertion	92.3% (85.2%)	7.7% (4.2%)	0.0% (10.5%)	0.0% (0.0%)	0.0% (0.0%)	0.0% (0.0%)
Struck Against/By	91.4% (85.1%)	6.4% (10.7%)	2.1% (2.9%)	0.0% (0.9%)	0.0% (0.0%)	0.0% (0.4%)
Other/Unknown	**87.6%** (74.2%)	**9.4%** (20.1%)	**2.1%** (1.9%)	**0.5%** (2.7%)	**0.0%** (0.3%)	**0.4%** (0.9%)

Source: U.S. Center for Disease Control and Prevention (CDC) National Center for Health Statistics (NCHS) mortality data. Percentages are rounded to the nearest tenth of a percent and therefore may not add up to the total. Annual average estimated number of consumer product-related fatalities and U.S. population estimates for each age group are based on annual average numbers from years 2021 and 2022, and do not include any numbers form 2020. Race is known for every case (i.e., there are no cases of unspecified Race).

Table 33 presents the percent of the estimated annual average number of fatalities to seniors, and the percent of fatalities to adults in parentheses, for each age group and category **by whether individuals are Hispanic**. Ethnicity (i.e., Hispanic or non-Hispanic) is known for 99.8 percent of senior and 99.6 percent of adult fatalities. The first row in the table shows the

percentages for Hispanics and non-Hispanics in the U.S. population for the adult and senior age groups, which can be used to compare to percentages of the same age groups in the table to see if percentages of fatalities for each age group are higher, lower, or about the same as the percentages seen in the U.S. population. Notice that, when comparing the percentages of injuries in each group to their corresponding population share, a larger proportion of adults in the U.S. population are Hispanic (18.4 percent), compared to the proportion of seniors in the U.S. population who are Hispanic (9.0 percent).

The percentages of adult and senior fatalities that are Hispanic individuals are lower than the percentage of Hispanics in the U.S. population in most categories for each age group. In some categories, the percentages of senior deaths that are to Hispanics are less than half the percent of Hispanics in the population. The only categories where there are higher proportions of Hispanic deaths compared to the proportion of Hispanics in the U.S. population for seniors (9.0 percent) are deaths attributed with Burns [Contact with Hot Objects] (9.5 percent of 55 deaths), Bicycles (11.0 percent of 325 deaths), Foreign Body (9.4 percent of 11 deaths), and Overexertion (12.3 percent of 5 deaths)—the latter two of which have small estimated frequencies.

Table 33: Percent of the Annual Average Estimated Number of Fatalities to Seniors Ages 65 Years and Older by Product/Hazard and a Comparison of Hispanic and Non-Hispanic Seniors With the U.S. Population, 2020-2022 (Percent of the Annual Average Estimated Number of Fatalities to Adults Ages 25 to 64 Years)

Product/Hazard	Hispanic	Non-Hispanic	Unknown	Total
Percent in the U.S. Population	**9.0%** (18.4%)	**91.0%** (81.6%)	**0.0%** (0.0%)	**100%** (100%)
Percent of All Fatalities	**5.0%** (12.7%)	**94.8%** (86.9%)	**0.2%** (0.4%)	**100%** (100%)
Non-Mechanical	**5.5%** (13.1%)	**94.1%** (86.5%)	**0.4%** (0.4%)	**100%** (100%)
Fire-Related	4.8% (7.3%)	94.8% (92.1%)	0.4% (0.5%)	100% (100%)
Burns (Contact with Hot Objects)	9.5% (4.4%)	89.5% (92.7%)	1.0% (2.9%)	100% (100%)
Electric Shock	4.5% (17.4%)	93.3% (82.6%)	2.2% (0.0%)	100% (100%)
Drowning	6.6% (11.6%)	93.2% (88.1%)	0.2% (0.3%)	100% (100%)
Explosion	3.3% (15.0%)	96.7% (84.4%)	0.0% (0.6%)	100% (100%)
Poisoning	7.6% (18.1%)	91.5% (81.6%)	0.9% (0.4%)	100% (100%)
Suffocation	4.5% (9.4%)	95.3% (90.4%)	0.2% (0.2%)	100% (100%)
Riding Consumer Products	**7.5%** (14.9%)	**92.3%** (84.9%)	**0.2%** (0.3%)	**100%** (100%)
Animal Riding	7.6% (12.6%)	92.4% (87.4%)	0.0% (0.0%)	100% (100%)
Bicycles	11.0% (19.9%)	88.7% (79.7%)	0.3% (0.4%)	100% (100%)
Other Riding Products (excl. Micromobility Products)	2.3% (9.0%)	97.7% (90.9%)	0.0% (0.1%)	100% (100%)
Non-Riding Product Mechanical	**4.9%** (11.7%)	**94.9%** (88.0%)	**0.1%** (0.3%)	**100%** (100%)
Cut/Pierce	2.1% (9.0%)	97.9% (91.0%)	0.0% (0.0%)	100% (100%)

Entrapment	6.1% (20.9%)	93.0% (79.1%)	0.9% (0.0%)	100% (100%)
Falls	4.9% (11.3%)	94.9% (88.4%)	0.1% (0.4%)	100% (100%)
Foreign Body	9.4% (17.8%)	90.6% (82.2%)	0.0% (0.0%)	100% (100%)
Machinery	3.3% (19.5%)	96.7% (80.5%)	0.0% (0.0%)	100% (100%)
Overexertion	12.3% (0.5%)	87.7% (99.5%)	0.0% (0.0%)	100% (100%)
Struck Against/By	5.8% (16.8%)	94.0% (83.1%)	0.2% (0.1%)	100% (100%)
Other/Unknown	**5.1% (12.5%)**	**94.7% (87.0%)**	**0.2% (0.5%)**	**100% (100%)**

Source: U.S. Center for Disease Control and Prevention (CDC) National Center for Health Statistics (NCHS) mortality data. Percentages are rounded to the nearest tenth of a percent and therefore may not add up to the total. In 0.2 percent of all senior deaths and 0.4 percent of all adult deaths, it is unknown whether the individual is Hispanic.

Appendix A: Inclusion/Exclusion Criteria and the Cause Variable

A Brief Explanation of How the NEISS Calculates National Estimates

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.[36] 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 publishes NEISS estimates, or percentages based on the estimates, provided the sample count is 20 or greater, the national estimate is 1,200 or greater when rounded to the nearest 100, and the coefficient of variation (CV) is 0.33 or less. However, if a two-year total estimate meets the above criteria, then those estimates are presented in the NEISS section of this report. This means an estimated annual average of less than 600 injuries based on the two-year total estimate is not presented in this report, and percentages of total estimates are reportable even if the corresponding individual estimate does not meet the reporting criteria. Because the hospital reports in the NEISS are unique, there are no duplicate cases.

The NEISS Cause Variable

The ***primary variables*** of interest in determining inclusion and exclusion of cases, as well as determining which categories and subcategories cases were placed are incident product/hazard scenario (i.e., Cause), fire involvement (i.e., fmv), product code (i.e., prod1, prod2, and prod3), primary diagnosis (i.e., diag1), primary body part (i.e., bdpt), and case narrative.

The following Non-Riding Product Mechanical hazard tier subcategories are based on the Cause variable: Cut/Pierce (i.e., Cause = 8), Falls (i.e., Cause = 6), Foreign Body (i.e., Cause = 15), Overexertion (i.e., Cause = 9), and Struck Against/By (i.e., Cause = 7). The Cause variable is mostly looked at for mechanical hazard cases that do not involve riding consumer products.

All NEISS cases are excluded where Cause is coded 16 (i.e., dog bite), 17 (i.e., other bite or sting), 18 (i.e., firearm gunshot), 20 (i.e., natural or environmental), 21 (i.e., adverse effects of therapeutic drugs), or 22 (i.e., adverse effects of surgery or medical care). Injuries primarily caused by dog bites, other animal or insect bites or stings, firearm gunshots, or natural or environmental elements do not involve a consumer product. The cases associated with adverse effects of drugs and surgery, or medical care involve patients who have serious medical issues, and while these cases may involve consumer products, the primary reason for ED-treatment appears to be confounded at least in part due to poor health status as opposed to consumer products playing a primary role.

For the remaining Non-Riding Product Mechanical hazard tier cases not listed above (i.e., Cause = 1-5; 10-14; 19; 88; and 99), case narratives were read to determine which category and subcategory to place each case. When deciding which categories and

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

subcategories to place cases (based on incident scenarios described in case narratives), and paying attention to the other primary variables listed above, staff aimed to consistently code these cases similar to how the Cause coded variables categorized cases into Cut/Pierce, Falls, Foreign Body, Overexertion, and Struck Against/By injury categories; or, when finding groups with similar case scenarios, all the similar cases were placed in the same category or subcategory for data consistency and integrity purposes. Mechanical hazard cases with no riding consumer product involved that did not fit into one of the above categories formed the Other/Unknown category. Details of hierarchy and categorization methodology are found in Appendix B. Table 34 shows the descriptions for the NEISS variable Cause codes and how staff relied on the Cause variable to categorize most cases in the Non-Riding Product Mechanical hazard tier.

Table 34: NEISS Cause Variable Categories[37]

Cause	Description	Non-Riding Product Mechanical Hazard Category
1	Mv-Occupant	Staff read narratives to determine categorization
2	Motorcycle	Staff read narratives to determine categorization
3	Pedal Cycle	Staff read narratives to determine categorization
4	Pedestrian	Staff read narratives to determine categorization
5	Other Transport	Staff read narratives to determine categorization
6	Fall	Falls
7	Struck Against/By	Struck Against/By
8	Cut/Pierce	Cut/Pierce
9	Overexertion	Overexertion
10	Fire/Burn	Staff read narratives to determine categorization
11	Poisoning	Staff read narratives to determine categorization
12	Inhalation/Suffocation	Staff read narratives to determine categorization
13	Drowning/Near Drowning	Staff read narratives to determine categorization
14	Machinery	Staff read narratives to determine categorization
15	Foreign Body	Foreign Body
16	Dog Bite	Excluded from data
17	Other Bite/Sting	Excluded from data
18	Firearm Gunshot	Excluded from data
19	BB/Pellet Gunshot	Staff read narratives to determine categorization
20	Natural/Environmental	Excluded from data
21	Adverse Effects of Therapeutic Drugs	Excluded from data
22	Adverse Effects of Surgery/Medical Care	Excluded from data
88	Other Specified	Staff read narratives to determine categorization
99	Unknown/Unspecified	Staff read narratives to determine categorization

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

Table 35 shows the total numbers of Non-Riding Product Mechanical hazard cases that were placed in each category in this report by which Cause category they were originally coded

[37] Some cases, after narratives are considered, are categorized differently than coded in the Cause variable in this report. See Appendix B for further details.

in, for ages 25 years and older, for all cases from 2022 and 2023. Note that the numbers in the table are two-year totals.

Of all cases from 2022 through 2023 for ages 25 years and older, 98.2 percent of cases originally coded Cut/Pierce injuries (i.e., Cause = 8) are also categorized as Cut/Pierce cases in this report. Similarly, the following are the percent of cases that were placed in the same category as Cause coded in the NEISS: 99.9 percent of Falls cases, 98.3 percent of Foreign Body cases, 99.8 percent of Overexertion cases, and 93.2 percent of Struck Against/By cases. Of all cases in the Non-Riding Product Mechanical hazard tier in this report, 5.1 percent of cases coded as Struck Against/By in the NEISS are in the Falls category. Finally, 51.1 percent of the 6,460 cases coded Other (i.e., Cause = 88), and 73.2 percent of the 2,922 cases coded Unknown (i.e., Cause = 99), are in the Overexertion category because their narratives either vaguely described pain or listed injuries to body parts commonly associated with overexertion.

Table 35: Total Number and Percentage of Cases of NEISS Coded Cause Categories and the Non-Riding Product Mechanical Hazard Categories those Cases are Placed for Ages 25 Years and Older from 2022 and 2023

NEISS Coded Cause	Cut/Pierce	Falls	Foreign	Overexertion	Struck Against/By	Other/ Unknown	Total
Total	**30,842 (10.4%)**	**180,380 (60.6%)**	**3,512 (1.2%)**	**44,759 (15.0%)**	**36,874 (12.4%)**	**1,532 (0.5%)**	**297,899 (100%)**
1-5; 10-14; 19 (Various)	1,224 (55.3%)	484 (21.9%)	76 (3.4%)	119 (5.4%)	303 (13.7%)	7 (0.3%)	2,213 (100.0%)
6 (Falls)	121 (0.1%)	177,596 (99.9%)	9 (0.0%)	10 (0.0%)	29 (0.0%)	0 (0.0%)	177,765 (100.0%)
7 (Struck Against/By)	195 (0.5%)	1,939 (5.1%)	157 (0.4%)	308 (0.8%)	35,603 (93.2%)	6 (0.0%)	38,208 (100.0%)
8 (Cut/Pierce)	28,748 (98.2%)	16 (0.1%)	478 (1.6%)	13 (0.0%)	16 (0.1%)	17 (0.1%)	29,288 (100.0%)
9 (Overexertion)	3 (0.0%)	48 (0.1%)	0 (0.0%)	38,869 (99.8%)	11 (0.0%)	0 (0.0%)	38,931 (100.0%)
15 (Foreign Body)	23 (1.1%)	0 (0.0%)	2,077 (98.3%)	0 (0.0%)	12 (0.6%)	0 (0.0%)	2,112 (100.0%)
88 (Other)	417 (6.5%)	223 (3.5%)	710 (11.0%)	3,300 (51.1%)	747 (11.6%)	1,063 (16.5%)	6,460 (100.0%)
99 (Unknown)	111 (3.8%)	74 (2.5%)	5 (0.2%)	2,140 (73.2%)	153 (5.2%)	439 (15.0%)	2,922 (100.0%)

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

Product Codes of Products not Considered Consumer Products

There are several product codes in the NEISS Coding Manual[36] in bold font and underlined, indicating products that generally are not under CPSC jurisdiction. These products generally are not considered consumer products and when any of these products are coded in one of the product codes or mentioned in case narratives, the non-consumer product is ignored such that cases are included if other consumer products contribute to being ED-treated but are excluded if no consumer product is coded or mentioned. All of these products generally not deemed consumer products appear in Table 36.

In addition, there are activities and products with no product codes that are listed in the NEISS Coding Manual in bold font "**Do not report**" which are also excluded, such as backhoes,

bandages, boat docks or ramps, car jacks, canoes, contact lenses and eye glasses, cosmetics, dental products including toothbrushes, hang gliders, hearing aids, jet skis, kayaks, medical devices or products, motorized shopping carts, parachutes, paragliders, stair lifts, sky diving, and tattoo ink and needles, among others. Table 36 shows the list of product codes from the NEISS Coding Manual which are excluded from categorization methodology when deciding whether a case should be included in the report. When determining product categories and subcategories in which to place an included case, product codes in Table 36 are treated as if the product was never coded.

Among the excluded product codes are canes, crutches, or walkers (i.e., product code 1706) and wheelchairs (i.e., product code 1707). The following are some examples of how cases involving products with one of these two product codes are determined to be included or excluded, and, if included, how these cases are categorized. For example, if a patient falls to the floor while using one of these products, then the case was placed in the Falls category and Floors (no other products) subcategory, interpreting the incident scenario as follows: the patient was ambulating, while using one of these products, when a fall injury occurred involving a flooring consumer product. If a patient falls to the ground on the sidewalk while using one of these products, then the case is excluded.

Table 36: Products Generally Outside CPSC Jurisdiction and their Respective Product Codes

Product Code	Product Description	Product Code	Product Description
915	Methyl alcohol	1921	Liquid prescription drugs
1608	Electric toothbrushes or oral irrigators	1922	Other prescription drugs
1629	Nonelectric toothbrushes	1923	Aspirin or aspirin compounds
1706	Crutches, canes, or walkers	1924	Prescription drugs, not otherwise specified
1707	Wheelchairs	1925	Drugs, not specified
1716	Hypodermic needles or syringes	1926	Pesticides and pesticide containers
1901	Motor vehicles or parts (licensed; four or more wheels)	1927	Liquid drugs (excl. aspirin, aspirin substitutes, iron preparations and antihistamines)
1902	Trains	1921	Liquid prescription drugs
1903	Alcohol (beverage)	1928	Antihistamines
1904	Foods	1929	Drugs or medications, not specified
1905	Firearms, gunpowder, or ammunition	1930	Aspirin substitutes
1906	Aircraft	1931	Tablet or capsule drugs (excl. aspirin, aspirin substitutes, iron preparations and antihistamines)
1907	Commercial ships	1932	Other drugs or medications
1908	Pesticides, including insecticides, herbicides, fungicides, rodenticides, rat poison, ant poison, bug spray	1933	Foods (excl. hot water)
1909	Cigarettes, cigars, pipes, or tobacco	1935	Gun powder or ammunition (excl. BBs and pellets)
1910	Licensed two-wheeled motor vehicles (excl. mopeds and trail bikes)	1937	Air bags, deployed

1911	Drugs and medications, prescription	1939	Illegal drugs (incl. cocaine, crack, heroin, marijuana, PCP, and hallucinogens
1912	Drugs and medications, nonprescription	1940	Mouthwashes or mouth rinses (excl. peroxide)
1913	Cosmetics, including facial and eye make-up, deodorants, hair preparations, nail polish and removers, bath oils, skin creams and lotions, etc.	2001	Animal-induced injury
1914	Veterinary medicines	2002	Plants, trees and shrubs (living)
1915	Liniments or rubbing compounds	2003	Insect induced injuries
1916	Preparations containing iron salts	2200	Industrial equipment
1917	Other nonprescription drugs and medications	2400	Medical equipment, general
1918	Alcohol, not otherwise specified	2640	Oral hygiene products
1919	Gunpowder or ammunition	3224	Other guns or firearms
1920	Tablet or capsule prescription drugs	3253	Guns, not specified

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

Inclusion and Exclusion Criteria

Since there are no narratives describing deaths in the NCHS data used in this report, staff selected cases from ICD-10 codes which previous CPSC special studies identified as consumer product-related. Cases excluded are deaths which are work-related (i.e., workrel = Y), to foreign residents (i.e., resident = 4), and deaths occurring while working for income (i.e., activity = 2). Otherwise, cases with an ICD-10 code appearing in Table 41 in Appendix C are included in weighted fatality estimates.

In contrast to the NCHS data, the NEISS includes a brief narrative for each case, which in most narratives describes products and incident scenarios, as well as other informative variables, such as the Cause variable, primary diagnosis, product codes, fire-involvement, and primary body part injured. These additional pieces of information about each case are considered while determining whether a case is included or excluded from analysis in this report.

Data analyzed in this report are a subset of all 340,836 NEISS cases of patients ages 25 years and older from January 1, 2022 through December 31, 2023, among which 9,119 cases (2.7 percent of cases) are excluded due to the absence of a consumer product contributing to a patient visiting the emergency department. Table 37 shows the numbers and percentages of adult and senior cases excluded for each reason.

Cases involving excessive **alcohol and/or drug use**, including overdose cases, are included if a fall or a consumer product is referenced in the case narrative as contributing to the ED-visit. If a patient was ‘found’ with no indication of a fall or a consumer product contributing to the ED-visit, then the case is excluded. Cases where patients who ate bags of drugs to avoid arrest are excluded.

Animal- or bug-related cases, which are not among cases coded 16 or 17 (i.e., Dog bite or other bite/sting, respectively) in the Cause variable, are excluded where the case narrative indicates injuries due to the following: bed bugs, lice, ticks, rabies or potential rabies

from possible contact with animals, and animal or bug bites or scratches. Cases involving animals along with pet-related products (i.e., product code 1715) are included, such as injuries caused by dogs pulling patients down while the dog is connected to a dog leash. Some pet-related products include animal beds, bones, cages, collars, leashes, and toys. Among all animal- or bug-related cases, in 754 out of 1,158 (65 percent) adult cases and in 405 out of 629 (64 percent) of senior cases the case narrative contained “dog”, of which the vast majority involved an ED-visit primarily caused by a dog with no mention of any consumer product, including dog leashes. The following paragraphs clarify how cases involving animals and bugs are excluded and included.

All narratives for cases including product code 2001 (i.e., animal-induced injury) were read to determine whether an animal directly caused the injury without any consumer product involvement, and, if so, then the case was excluded. For riding consumer products, collisions with animals were included when the riding consumer product was involved in the incident. Cases were excluded narratives described the following injuries caused by animals without mention of a consumer product: allergies, bites, scratches, direct contact with patients (e.g., animals jumping into or pushing), injuries while carrying animals, running to escape an animal, tripping over animals, attempting to pick up animals, avoiding stepping on or tripping over animals, and attempting to prevent animals from getting in or out of a boundary (e.g., trying to block an animal from getting out of a home when opening a door or gated area).

The following cases involving a consumer product where an animal is involved but does not appear to directly contribute to a collision, fall, or other type of injury include bathing; chasing; feeding; grooming; petting; letting in or out of the home; immediate reactions after being surprised or startled by an animal; playing with, walking, or running with an animal; cleaning or slipping and falling due to various animal excretions; and injuries due to *indirect causation* where an animal moves a product, such as knocking a consumer product off a shelf, overturning a consumer product like a shelf, or turning on a stove which leads to injuries.

Cases involving falls while walking animals, namely dogs, where a leash is coded among the product codes, or a leash is mentioned in the case narrative, were placed in the Falls category and Pet Products subcategory. In similar cases, where no pet leash is coded among the product codes and no leash is mentioned in a narrative but instead the narrative describes situations similar to a person ‘walking or running (with) a dog’, these cases are included if a consumer product is involved in the incident scenario and excluded if no other consumer product is involved in the incident scenario.

Bus, boat, plane, and train-related cases that are excluded are collisions or falls caused by an accident or sudden stoppage of the vehicle, while boarding or exiting the vehicle (e.g., docks, platforms, ramps, and stairs or steps), and wheelchair loading lifts or ramps on buses, motor vehicles, and trains. Cases included are those which involve consumer products while on board the vehicle, which includes stairs on a boat or cruise ship. In a case where a boat capsizes and a consumer product activity such as fishing, water tubing, or swimming is coded in one of the three product codes, then the case is included. Placing a bicycle or other consumer product on or off a bus rack or train are included.

Food-related cases of choking are included if the patient also suffered an additional injury, such as a fall, or was injured by a consumer product in some way while choking. Allergic reactions, aspirating, choking, and getting food stuck under fingernails or in the throat are excluded, however.

Although incidents occurring in **foreign nations** outside the U.S. and its territories are excluded, incidents occurring in foreign nations on air force bases or other U.S. forces grounds are included.

Cases involving i**nsecticides and weed killer, mobility scooters, mopeds, and motor vehicles** are included through association if a consumer product is also involved, but otherwise are excluded because these products generally are not under CPSC's jurisdiction. All cases coded 1744 (i.e., Motorized vehicles, not elsewhere classified [three or more wheels]) were read to determine whether the product involved a mobility scooter. In most of these cases, the narrative appears to describe a mobility scooter or an electronic shopping cart as the coded *motorized scooter*. Mobility scooter products that are medical devices or electronic shopping carts are excluded, while manually operated shopping carts as well as shelves and products on shelves in stores are included.

Mobility scooters that are medical devices are not under CPSC jurisdiction, so mobility scooters are treated as if a person is simply ambulating and cases are only included if another consumer product is also involved in the ED-visit, such as falling to the floor out of a mobility scooter, where floor (i.e., product code 1807) is a consumer product. There are some cases coded 1744 which are types of motorized scooters considered consumer products, such as a motorized tricycle. For cases of scooters coded 5022 (i.e., Scooters, powered), it is assumed that the scooter is a micromobility scooter and the case is included, except in some cases where the narrative describes a scenario involving a mobility scooter, such as an incident occurring in a nursing home or store, and those cases are excluded.

Motor vehicles include all roadway-licensed transport vehicles. **Motor vehicle-related** cases in Table 37 are included for all cases involving Riding Consumer Products and excluded for other cases when predominately involving a motor vehicle (i.e., product code 1901), which includes cars, trucks, vans, RVs, and mobile homes, among others; a motorcycle (i.e., product code 1910); liquids used in concert with motor vehicles or motorcycles (e.g., coolant, gasoline, oil, fluids) while working on a car; or car accessories (e.g., car batteries and jacks) which are generally not under CPSC jurisdiction. Conversely, if a case involves a motor vehicle or motorcycle and a consumer product contributes to the ED-visit, then the case is included.

Each narrative with any of the three product codes (e.g., prod1, prod2, or prod3) coded 1901 or 1910 was read to determine whether the case should be included or excluded and to determine which category, and if necessary, subcategory to place each case. If a case narrative was unclear as to whether the product was a bike, scooter, or motorcycle then the case was omitted and assumed that the product was a motorcycle instead of a consumer product. Location of injuries are not restricted; cases occurring in a business, nursing home, prison, restaurant, stores, or at outdoor locations are included. The following are examples of scenarios involving motor vehicles and motorcycles described in narratives that are included and excluded in this report:

Illustrative Cases Involving a Motor Vehicle Included

- While using a Riding Consumer Product (e.g., bicycle, micromobility product, or OHV)
- While working on a motor vehicle using a consumer product tool (excluding car jacks and ramps, auto liquid products, and gas station gas pumps and air compressors);
- While getting in or out of a motor vehicle and falling into or onto, or striking a consumer product, including a garage floor (not ground), or wall;
- Injured by a consumer product while in a motor vehicle, such as cut by a knife or getting clothes stuck while trying to get out of a vehicle;

- Consumer products being loaded or unloaded from motor vehicles (cases were placed in the category or subcategory in which the product being loaded or unloaded belongs);
- Overexertion injuries while reaching for a consumer product while in a motor vehicle;
- RV/Mobile Home steps;
- Cases of unintentional ingestion, being sprayed, or other incidents involving liquid products like antifreeze, gasoline, oil, or other chemical products is included if a motor vehicle is not involved, otherwise the case is excluded; and
- Collisions with (Struck Against/By) a motor vehicle while engaging in a normal activity with a consumer product, such as:
    - checking the mail;
    - moving waste containers (garbage cans);
    - in a parking lot while using a shopping cart or loading consumer products into a motor vehicle;
    - pushing a stroller;
    - using a riding consumer product; and
    - while talking on the phone.

Illustrative Cases Involving a Motor Vehicle Excluded

- All cases involving motor vehicle batteries, including overexertion injuries while picking up or carrying a motor vehicle battery;
- All cases involving a gas station air compressor or gasoline pump and hose, which includes cases of tripping over a gas hose while pumping gasoline;
- Driving or while a passenger in a motor vehicle during a vehicular accident;
- Collision with (Struck against/by) a motor vehicle while not engaging in a normal activity with a consumer product, such as dropping a hat, being hit by a car that drove into a house, or while riding a mobility scooter;
- While working on a motor vehicle and motor vehicle liquids, such as gasoline or oil, caused the ED-visit, such as being sprayed by a carbonator or slipping on gasoline or oil in a garage;
- Motor Vehicle parts such as doors, hitches, tailgates, trunks, or windows making contact with the patient;
- Wheelchair lifts on motor vehicles or buses; and
- RV/Mobile Home ladders.

Other non-consumer products comprise non-consumer products that are not classified in the other categories. Table 36 encompasses the majority of the excluded other non-consumer products in Table 37. Cases involving body wash and soap are included, while shampoo and cosmetic products are excluded. The following cosmetic products are excluded: adhesives applied to the body; after shave; aromatherapy oil; artificial nails; baby oil; baby powder; bath bombs; bath oils; bath salts; cannabidiol-infused (CBD) products; cologne; cosmetic dyes; creams and lotions for skin care; deodorant; exfoliates; face paint; facial and eye make-up; hair cleaning, coloring, rinses, and straightening preparations; make-up, toy make-up, and make-up wipes; nail polish and removers or other fingernail preparations; perfumes; shampoos; shaving cream; sunscreen; tattoo ink; temporary tattoos; and any other cosmetic products not mentioned above.

Outdoor or environmental cases, which are not coded 20 in the Cause variable (i.e., Natural/Environmental), are excluded if involving sunburns arising during outdoor activities, allergy-induced injuries, and rashes or other skin issues, unless narratives allude to clothing or other consumer products as the source of the allergy or rash. About three in four cases

excluded due to these outdoor or environmental hazards are due to allergic reactions or rashes stemming from outdoor grass, plants, or other and unknown outdoor sources. Other cases include rashes and skin issues arising from swimming in open bodies of water.

Meanwhile, cases are included which involve Cut/Pierce, Falls, or Struck Against/By injuries due to contact with environmental elements while performing a consumer product-related activity such as fishing, hiking, or walking for exercise. Tree (saw) dust striking eyes or being struck by fallen branches or brush as a result of using consumer product tools to cut or trim bushes, shrubs, or trees are included, as are cases of collisions or falling due to contact with trees while running for exercise, playing sports, or skiing. Injuries stemming from plants piercing through the bottom of footwear is also included, where the footwear is involved in the injury.

Inadvertent Cut/Pierce or Struck Against/By injuries involving environmental elements are excluded, such as being struck by a fallen branch while sitting on a deck, but tree limbs that fall on roofs are included due to house products involved in the incident. Cases of Overexertion injuries stemming from the activity of swimming (i.e., product code 3274) in an open body of water are included in the Overexertion category and Exercise Activity subcategory.

Cases due to **self-harm or harm intentionally inflicted by others** are excluded. Some examples of these cases are injuries resulting from domestic disputes; wrist cutting; banging head on objects like doors, floors, or doors; throwing oneself against floors or walls; or cases of others intentionally harming the victim. Cases involving personal protection devices (i.e., product code 1619) such as pepper spray and mace are included.

Work-related incidents are excluded since Occupational Safety and Health Administration (i.e., OSHA) generally has primary regulatory responsibility for workplace safety.

Table 37 shows the total number of cases over the two-year period, 2022 through 2023, for ages 25 years and older that are excluded, by reason for exclusion, and by age group; and in parentheses are the proportion of excluded cases in each excluded category from each age group. For example, there are 515 total excluded cases due to alcohol or drug-related reasons, of which only 30 (6 percent) of these cases are seniors. There are 1,787 total excluded cases involving animals or bugs, of which 629 (35 percent) of these cases are seniors.

Table 37: Reasons for NEISS Case Exclusions (Percentages of Adult and Senior Cases for each Excluded Category)

Excluded Category	# of Adult Cases	# of Senior Cases	# of Total Cases
Total Number of Excluded Cases	**6,962 (76%)**	**2,157 (24%)**	**9,119 (100%)**
Alcohol or Drug-Related	485 (94%)	30 (6%)	515 (100%)
Animal or Bug-Related	1,158 (65%)	629 (35%)	1,787 (100%)
Bus/Boat/Plane/Train-Related	89 (71%)	37 (29%)	126 (100%)
Cause = (16-18; 20-22)[38]	1,892 (68%)	899 (32%)	2,791 (100%)
Food-Related	16 (80%)	4 (20%)	20 (100%)
Foreign Nation	56 (81%)	13 (19%)	69 (100%)
Insecticides/Weed Killer	22 (71%)	9 (29%)	31 (100%)
Mobility Scooter	36 (38%)	58 (62%)	94 (100%)

[38] Detailed explanations about the Cause variable can be found in the NEISS Cause Variable section in Appendix A.

Moped	1,119 (93%)	78 (7%)	1,197 (100%)
Motor Vehicle-Related	1,646 (83%)	331 (17%)	1,977 (100%)
Other Non-Consumer Products	95 (81%)	23 (19%)	118 (100%)
Outdoor/Environmental	201 (83%)	40 (17%)	241 (100%)
Self/Intentional Harm	96 (97%)	3 (3%)	99 (100%)
Work-Related	51 (94%)	3 (6%)	54 (100%)

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

Narratives Read for Inclusion/Exclusion and Category/Subcategory Placement

Case narratives were read to determine whether a case is included, and to determine which category and subcategory to place each case. All case narratives of cases with product codes 1744 (i.e., Motorized vehicles, not elsewhere classified [three or more wheels]), 1901 (i.e., Motor vehicles or parts [licensed; four or more wheels]), 1910 (i.e., Licensed two-wheeled motor vehicles [excluding mopeds and trail bikes]), 2001 (i.e., Animal induced injury), 2002 (i.e., Plants, trees and shrubs [living]), and 3215 (i.e., Mopeds or power-assisted cycles) were read to determine whether a case involves a consumer product or should be excluded.

All Case narratives of cases indicating alcohol (i.e., pt_alc = 1) or drugs or medications (i.e., pt_drug = 1) likely contributed to the incident were read to determine whether a case involves a consumer product or should be excluded.[39]

All Case narratives coded with Knives and Saws product codes[40] which are not coded as cut injuries in the Cause variable (i.e., Cause ≠ 7) were read to determine which category to place these cases. Most cases involving a knife or saw product not coded as cut injuries in the Cause variable were cases of cuts or piercing by a knife or saw product and were placed in the Cut/Pierce category.

All case narratives were read if the following keywords were in the narrative: “bag of”, “bagg”, “flea”, “huff”, “ivy”, “leech”, “moped”, “mobility”, “motor cycle”, “motorcycle”, “overdose”, “ od ”, “poison “sunburn”, “sun burn”, and “ tick” to determine whether a case involves a consumer product or should be excluded. Some of these keywords sought to identify injuries only associated with drug use (e.g., bag of; bagg; huff; overdose; and “ od”), products generally outside CPSC jurisdiction (e.g., moped; mobility [scooter]; and motorcycle), or the environment (e.g., allergy; ivy; leech; poison; sunburn; and ticks). Narratives containing “bag of” or “bagg” may help identify cases of swallowing a baggie, baggy, or bag of drugs, which all are excluded from this report. Similarly, narratives were read to determine if cases should be excluded among cases of huffing or overdoses (e.g., huff; od), or resuscitation efforts to stop overdoses by reading narratives for drugs commonly used on overdosed patients.

Narratives were read for particular subsets of cases if the following keywords were present: “allerg”, “fall”, “fell”, “fb”, “foreign”, “glf”, ” rash”,[41] “sliver”, “splinter”, and “stub”, among others. Reading narratives containing these keywords is a way to ensure better data consistency and quality, by finding similar cases that may have been coded differently, placing all similar cases into the same category or subcategory, and excluding cases that generally do

[39] There are many additional cases of NEISS narratives that mention alcohol or drug use which are not coded as consuming alcohol or drugs in the pt_alc and pt_drug variables.
[40] Refer to Table 40 in Appendix B for the list of Knives and Saws product codes.
[41] Case narratives containing “ rash”, not “rash”, are searched because “rash” with no preceding space also considers other words such as “crash” and “trash”, which are not of relevance when searching for cases of rashes.

not involve consumer products under CPSC's jurisdiction described throughout Appendix A. Case narratives containing some of the above keywords were read to determine if a case should be placed in a different category than is NEISS coded by the Cause variable, primary diagnosis variable, fire-related variable, and product variables.

For instance, all case narratives *not* involving a riding consumer product and *not* coded as Falls in the Cause variable (i.e. Cause ≠ 6) were read if the narrative contains "fall", "fell", or "glf" (e.g., ground-level fall) to determine if these cases involve falls as the reason for an ED-visit. If a fall is a contributing factor for the ED-visit, then the case was placed in the Falls category. Some cases ultimately involving a fall may have been placed into one of the other categories for various reasons, such as falling while carrying a knife and receiving a cut injury (Cut/Pierce), having a misstep and rolling an ankle or twisting a knee and also falling (Overexertion), or getting struck by or striking against a product and falling where the product contacting the individual is the primary reason for the ED-visit (Struck Against/By). Most cases involving a fall were placed in the Falls category.

Similarly, all case narratives which are *not* coded as dermatitis in the primary diagnosis variable (i.e. diag1 ≠ 74) were read if the narrative contains "allerg" or " rash" to determine if these cases involve allergic reactions or rashes and should be placed in the Allergy/Dermatitis/Other Skin Issues category.

All case narratives which are *not* coded as foreign body injuries in the Cause variable (i.e. Cause = 15) were read if the narrative contains "fb" (e.g., foreign body), "foreign", "sliver", or "splinter" to determine if these cases should be placed in the Foreign Body category.

All case narratives *not* involving a riding consumer product which are *not* coded as Struck Against/By injuries in the Cause variable (i.e. Cause ≠ 7) were read if the narrative contains "stub" (e.g., stub a foot, finger, or toe) to determine if these cases should be placed in the Struck Against/By category. Cases involving a stubbed toe and a fall were usually placed in the Falls category, unless the narrative indicated the injury was predominately a toe injury and the fall did not contribute to the ED-visit.

Appendix B: Conventions for Determining Product/hazard Categories and Subcategories

Appendix B defines hierarchical and methodological determinations for product/hazard categorization, including those for the Non-Riding Product Mechanical hazard subcategories for the injury section. Recall that for the non-consumer products that appear in Table 36 in Appendix A, when any of these non-consumer products are coded or mentioned in case narratives, the non-consumer product is ignored such that cases are included if other consumer products contribute to ED-visits but are excluded if no consumer product is coded or mentioned in case narratives. Also note that many case narratives were read, and in most cases, information gathered from these narratives often prompted cases to be placed into categories different than originally coded or than methodology below dictates.

NEISS ED-Treated Injuries: Non-Mechanical Hazard and Riding Consumer Products Tier Categorization Methodology

Refer to the Non-Mechanical Hazard Tier and Riding Consumer Product Tier sections in the NEISS ED-Treated Injury Categories section in Appendix Dfor basic category definitions, hazards or products included, and the proportion of category estimates that some product codes make up in each category. Below expounds on the categorization methods for cases in these two tiers.

First, if a fire is coded in the fmv variable (i.e., fmv = 1, 2, or 3), and the case narrative mentions an incident scenario involving a fire or biproducts of a fire, like smoke, then the case was placed in the Fire-Related category, regardless of any consumer product involved or primary diagnosis coded. All case narratives coded as fire-related in the NEISS (i.e., fmv = 1, 2, or 3) were read to determine if the incident scenario is fire-related, while all cases not coded as fire-related (i.e., fmv = 0) were assumed not to involve a fire. Among the 2,526 included cases coded as fire-related (i.e., fmv = 1, 2, or 3), 107 cases (4.2 percent) were placed into categories other than Fire-Related. Smoke inhalation cases and cases of injuries while attempting to escape a house fire are considered fire related. Cases coded as fire-related (i.e., fmv = 1, 2, or 3) that have been placed in non-fire-related categories include incidents of batteries or cell phones overheating or exploding, fireworks incidents not involving uncontrolled fires, and carbon monoxide leaks.

Once the fire-related cases were identified, then the remaining cases yet to be categorized are considered non-fire-related (i.e., fmv = 0, or the case was otherwise determined not to be fire-related despite being coded fmv = 1, 2, or 3). Next, if the primary diagnosis (e.g., diag1) of a patient is not a mechanical-type hazard and no riding consumer product is involved (e.g., no riding consumer product listed in Table 39 appears in any of prod1, prod2, or prod3), then the case was placed in the appropriate Non-Mechanical hazard category listed in Table 38.[42] Table 38 shows all of the Non-Mechanical hazard tier categories based on the fire-related and primary diagnosis variables.

[42] Note that some cases involving drugs (i.e., pt_drug = 1) or alcohol (i.e., pt_alc = 1) have corresponding primary hazard codes in the diag1 variable, referring to the alcohol or drugs. Therefore, for cases coded either pt_drug or pt_alc equal to 1, narratives were read to determine whether cases should be excluded or in which category to place these cases.

Table 38: Non-Mechanical Hazard Tier Category Methodology[43]

Primary Diagnosis	fmv & diag1
Fire-Related	Subset of (fmv = 1, 2, 3) & diag1 = any & narrative indicates evidence of smoke, fire, or flames leading to ED-treatment
Burns - Non-Fire Thermal	fmv = 0 & diag1 = 51
Burns – Other/Electric Shock[44]	fmv = 0 & diag1 = 46, 47, 49, 67, 73
Burns – Scalding[45]	fmv = 0 & diag1 = 48
Anoxia/Aspiration/Submersion	fmv = 0 & diag1 = 42, 65, 69
Allergy/Dermatitis/Other Skin Issues	fmv = 0 & diag1 = 74
Ingestion	fmv = 0 & diag1 = 41
Poisoning	fmv = 0 & diag1 = 68

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

Concurrently, while categorizing the non-mechanical cases by the primary diagnosis, if a riding consumer product is being used and the primary diagnosis variable is not one of the non-mechanical primary diagnoses found in Table 38, then the case was placed into the corresponding Riding Consumer Products tier category based on product codes listed in Table 39.[46] In the cases where a riding consumer product and a non-mechanical primary diagnosis are both coded for a single case, each narrative was read to determine whether the primary diagnosis or riding product contributed more to the ED-visit, and the case was placed into the appropriate tier and category. Similarly, for cases with two or three riding products coded for a single case, the case narratives were read to determine appropriate riding product category placement.

Table 39: Riding Consumer Products Category Methodology

Riding Product	Product Codes
Animal Riding[47]	1239, and a subset of 1200 and 2001 based on case narratives
Bicycle	5033, 5040
Golf Cart	1213
Micromobility	3215,[48] 5022, 5025
Off Highway Vehicles (OHVs)	3285, 3286, 3287, 3296, 5044

[43] For cases where staff incorporates information found in case narratives, some cases were placed into different categories than cases are coded in the NEISS.
[44] This category includes chemical burns, electric burns, electric shocks, non-specified burns, and radiation burn cases.
[45] Many scalding cases only included product code 1934 (i.e., Hot water), but the hot water was assumed to have been heated, and in most cases contained, in a consumer product immediately before or during the scalding injury.
[46] If a riding consumer product is coded in one of the product code variables (i.e., prod1, prod2, or prod3), then the case is treated as if it involves a riding consumer product, unless a case narrative determines otherwise.
[47] Among cases coded 1200 (i.e., Sports and recreational activity, not elsewhere classified) and 2001 (i.e., Animal induced injury), case narratives which indicated Animal Riding as the primary reason for the ED-visit are also included in the Animal Riding category.
[48] In January 2024, NEISS retired product code 3215 (i.e., Mopeds or power-assisted cycles) and replaced it with two new product codes: 5045 (i.e., Electric power-assisted pedal bicycles [excl. off-road vehicles and minibikes]) and 5046 (i.e., Power-assisted cycles, not elsewhere classified [excl. off-road vehicles, minibikes, and licensed vehicles]). For this report, all case narratives of cases including product code 3215 were read, and cases that appear to belong to the new product code 5045 were included in the Micromobility category, whereas those that appear to belong to product code 5046 were included in the Other Riding Products category.

Other Riding Products	1062, 1283, 1290, 1333, 1405, 1422, 1744,[49] 3202, 3259, 3288, 5023, 5024, 5035, 5036, 5046

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

In addition, all narratives of cases not involving a riding consumer product and not coded as dermatitis in the primary diagnosis variable (i.e. diag1 ≠ 74) were read if the narrative contains "allerg" or " rash" to determine if these cases involve allergic reactions or rashes and therefore should be placed in the Allergy/Dermatitis/Other Skin Issues category. This kind of narrative keyword data checking improves the accuracy of case placement.

There are cases where narratives are ambiguous as to which riding product is used during the injury incident, such as "bike or e-bike" or "bicycle vs. scooter". Often, both products mentioned in the narrative are also coded among the three product codes, even if only one of the two products described in the narrative is actually being used, which is an indicator that it is unknown which product was being used. For cases where narratives refer to the product used in the incident as a bike or an e-bike, the more descriptive product (the e-bike in this example), is the product category that these types of cases were placed. For the case of a bike or a scooter, if the narrative does not add additional details intimating one product over the other, then whichever product that is coded as the first product code (i.e., prod1) is the category in which the case was placed.

Further Examples and Categorization Methodology Explanations

The following are examples and explanations of methodology used to categorize various types of cases which are associated with more than one product/hazard category, or groups of similar cases which may be associated with more than one product/hazard category where a determinant rule was created to keep similar cases together in a single category or subcategory.

Methodology: Cases Associated with Categories Allergy/Dermatitis/Other Skin Issues and Burns – Other/Electric Shock

Chemicals which contact the eye region could result in a rash or a chemical burn, depending on the amount of chemical exposure, location on the eye where exposed, the time taken to act once exposed, and the type of remedy used to initially treat the injury. Therefore, these cases could potentially be placed in either the Allergy/Dermatitis/Other Skin Issues category for a rash, or in the Burns – Other/Electric Shock category for a chemical burn. Since NEISS case narratives often lack details about incident scenarios, instead of attempting to discern a rash from a chemical burn with little information to go on, a grouping strategy based on NEISS diagnosis codes was devised to keep similar cases together as much as possible. This grouping strategy is described in the next paragraph.

To maximize consistency with how similar NEISS cases are coded, because most cases involving chemical products exposed to the eye are NEISS coded with the primary diagnosis coded as a chemical burn (i.e., diag1 = 49), and the remainder of NEISS coded cases either did

[49] All cases coded 1744 were read to determine whether the product involved is a mobility scooter. In most cases, the narrative appears to describe a mobility scooter as the product coded 1744, and mobility scooters are considered medical devices; so, in these cases the mobility scooter is treated as if a person is simply ambulating and only included if a consumer product is involved in the ED-visit. Falling to the floor out of a mobility scooter is included, since flooring (i.e., product code 1807) is a consumer product. There are some cases coded 1744 which are types of motorized scooters considered included consumer products, such as a motorized tricycle.

not have a specified primary diagnosis coded (e.g., diag1 is coded as unspecified), or the case had a different diagnosis coded, such as Dermatitis or Conjunctivitis (i.e., diag1 = 74), all cases involving the following list of chemicals exposed to the eye were placed in the Burns – Other/Electric Shock category, regardless of whether skin reaction (e.g., chemical burn or rash) is NEISS coded in the primary diagnosis variable or appears in the narrative: air fresheners, battery acid, bleach, chlorine (including all pool-related cases), concrete or cement, laundry detergent, degreaser, gasoline, glue, mace or pepper spray, paint products, powdery substances, tree sap from doing outdoor work involving trees, or other similar chemical products exposed to the eyes.

Conversely, since the majority of cases involving the same chemical products listed above contacting body parts other than the eye are coded as dermatitis or conjunctivitis (i.e., diag1 = 74), these cases are placed in the Allergy/Dermatitis/Other Skin Issues category if the case is not coded as dermatitis or conjunctivitis or chemical burns (i.e., diag1 ≠ 49 or 74) and narratives do not describe chemical burns. Cases involving the same chemical products which describe chemical burns in narratives, or the primary diagnosis variable is coded as a chemical burn (i.e., diag1 = 49) are placed in the Burns – Other/Electric Shock category.

For example, cases involving laundry detergent exposed to the eye was placed in the Burns – Other/Electric Shock category, regardless of additional details about the injury in the narrative or what is coded in the primary diagnosis variable, while cases of wearing clothing and receiving rashes on body parts other than the eye due to laundry detergent were placed in the Allergy/Dermatitis/Other Skin Issues category.

To keep consistent with how other NEISS cases are coded, almost all cases of soap exposed to the eye while in the bathtub or shower resulted in dermatitis issues (i.e., diag1 = 74) with no mention of chemical burns in any case narratives, so other cases involving soap exposed to the eye coded with non-dermatitis diagnoses were placed in the Allergy/Dermatitis/Other Skin Issues category.

Methodology: Cases Associated with Categories Allergy/Dermatitis/Other Skin Issues, Cut/Pierce, and Struck Against/By

Except for allergic reactions and rashes, which were placed in the Allergy/Dermatitis/Other Skin Issues category, cases of other skin issues listed below which arise from or are exacerbated by a consumer product contacting the skin, were placed in the Cut/Pierce or Struck Against/By category, depending on the nature of the contact. Cut or pierce injuries by a sharp or pointy product were placed in the Cut/Pierce category whereas collisions with more blunt products resulting in a contusion or abrasion were placed in the Struck Against/By category. Cases were placed in the Allergy/Dermatitis/Other Skin Issues category for cases of dermatitis or skin issues where consumer products are used to self-treat an existing issue, such as draining an abscess in the skin by poking it with a sharp object. The following are the most common products concerning these issues: grooming products, manicure products, piercings, and needle products, of which the most common cases include hair trimmers, nail clippers, and razors. For example, piercing and shaving cases that lead to a skin issue were placed in the Cut/Pierce category.

Finally, for this report, the following have been defined as **Allergy/Dermatitis/Other Skin Issues** that are either caused in part due to cuts or collisions which initially break the skin leading to a skin issue, or are being treated by using consumer products:

- Abscess (e.g., a tender mass full of pus and bacteria that forms when the skin is infected);
- allergic reactions;
- angioedema (e.g., swelling under the skin due to an allergic reaction);
- blepharitis (e.g., inflammation of the eyelids);
- breaking open moles, skin tags, or other protruding skin issues;
- callouses;
- chemosis (e.g., swelling of the conjunctiva or eye);
- conjunctivitis (e.g., inflammation of the transparent covering of the eye due to bacterial, viral infection, or an allergic reaction);
- draining pus or other bodily fluids by purposely puncturing the skin;
- erythema (e.g., a skin reaction to an infection or a medication that causes a rash, or lesions);
- felon of digits (e.g., a bacterial infection on the fingers or toes);
- folliculitis (e.g., a tunnel-shaped structure in the outer layer of the skin and from where the hair grows, causing small bumps in the skin);
- ingrown hair (e.g., a shaved or tweezed hair that grows back into the skin, causing inflammation);
- lesion (e.g., a part of the skin that has an abnormal growth or appearance compared to the skin around it);
- onychomycosis (e.g., a fungal infection that occurs in the edge of the nail);
- paronychia (e.g., an infection of the tissue folds around the nails);
- perichondritis (e.g., an infection of the tissue covering the cartilage of your outer ear);
- pimple;
- purulent discharge or drainage (e.g., a sign of a wound acquiring an infection);
- rashes;
- skin infections (including piercing infections, unless cartilage infection);
- skin irritation, redness, or swelling;
- ulcer of the skin (e.g., an open sore or wound that develops on the skin caused by poor blood circulation or injury); and
- select various other cellulitis issues.

The following are **not** considered dermatitis and skin issues in this report:

- avulsion fracture (e.g., when a piece of bone breaks away from the main part of the bone due to sudden movements or changes in direction);
- cartilage infections and other cartilage issues;
- chondritis (e.g., an inflammation of the cartilage that connects a rib to the breastbone, causing chest pain);
- contusions (e.g., internal bruising);
- ecchymosis (e.g., common bruise);
- general pain and swelling caused by a manicure or pedicure with no other details;

- hematoma (e.g., a collection of blood outside the blood vessels; it can be localized in an organ, space, or tissue);
- ingrown finger or toenails;
- nasal polyps (e.g., painless growths inside the nose or the hollow areas inside the bones of the face, also known as sinuses);
- osteomyelitis (e.g., an infection in the bone caused by bacteria or fungi);
- parotitis (e.g., an inflammation of the parotid glands, which are located on the sides of the face);
- skin numbness or tingling with no other details; and
- tongue issues.

NEISS ED-Treated Injuries: Non-Riding Product Mechanical Hazard Tier Hierarchy Methodology and Categorization

The remaining cases not categorized in one of the other two tiers defined above are those that are not fire-related, do not include riding consumer products, but do involve mechanical hazards leading to an ED-visit; such cases make up the Non-Riding Product Mechanical hazard tier. In other words, Non-Riding Product Mechanical hazard tier categories consist of all cases in which injuries are mechanical in nature and do not involve riding consumer products.

The categories in this report rely upon and closely follow the way the Cause variable is coded for hazard categories:[50] Cut/Pierce (i.e., Cause = 8), Falls (i.e., Cause = 6), Foreign Body (i.e., Cause = 15), Overexertion (i.e., Cause = 9), and Struck Against/By (i.e., Cause = 7), and all the remaining case narratives where Cause is not coded in one of the above categories or deemed excluded[51] were read to determine which category cases should be placed. Cases not involving riding consumer products but involving a mechanical hazard that does not fit into one of the above categories were placed in the Other/Unknown category.

Among all cases in the Non-Riding Product Mechanical hazard tier categories, every case was categorized into a single product subcategory in a particular mechanical hazard category. Many products producing the largest estimates in each Non-Riding Product Mechanical hazard category were grouped into product subcategories. There are two Cut/Pierce product subcategories, 25 Falls product subcategories, zero Foreign Body subcategories, eight Overexertion product subcategories, and five Struck Against/By product subcategories, as well as a catchall Other subcategory which includes all cases in each respective category that do not belong in any of the other subcategories for each Non-Riding Product Mechanical hazard category.

For each hazard category, if a case primarily involves a product that does not belong to one of the product subcategories, then the case was placed in the respective Other subcategory

[50] Some case narratives containing certain keywords were read to ensure better data consistency and quality, by finding similar cases that may have been coded differently, and placing all similar cases into the same hazard category. For these cases, narratives generally took precedence over the NEISS coded Cause variable; Table 35 in Appendix A shows the number and percentage of cases that were NEISS coded in a different hazard category than ultimately placed in this report for adults and seniors.
[51] All NEISS cases are excluded where Cause is coded 16 (i.e., dog bite), 17 (i.e., other bite or sting), 18 (i.e., firearm gunshot), 20 (i.e., natural or environmental), 21 (i.e., adverse effects of therapeutic drugs), or 22 (i.e., adverse effects of surgery or medical care).

for each category. For instance, a case involving a fall while on an escalator is placed in the Escalator/Elevator subcategory under the Falls category, whereas cases involving an overexertion injury involving an escalator, possibly caused by running up an escalator and having shortness of breath, was placed in the Other subcategory under the Overexertion category since there is no subcategory including escalators in the Overexertion category due to a paucity of such injuries.

Summary statistics for these product/hazard subcategories are provided in Table 14 through Table 24. The subcategories were formed based on similarity of consumer products or activities. Table 40 shows the product codes which encompass each Non-Riding Product Mechanical hazard product subcategory. Several subcategories are summarized in analysis under two or three hazard categories among the Falls, Overexertion, and Struck Against/By categories.

Table 40: Non-Riding Product Mechanical Hazard Tier Subcategories and Product Codes which Make Up each Subcategory[52]

Non-Riding Mechanical Hazard Product Subcategory	Category	Product Codes
Balconies/Decks/Porches	Falls	1817
Bathtubs/Showers	Falls	609, 610, 611, 4030, subset of 699[53]
Beach Chairs/Benches/Bleachers	Falls	687, 1294, 4016
Beds	Falls; Overexertion; Struck Against/By	661, 662, 667, 680, 4002, 4009, 4010, 4050, 4051, 4054, 4064, 4069, 4075, 4076, 4082
Boxes	Falls; Overexertion	1141, 1114
Brooms/Mops/Vacuums	Falls	115, subset of 480[54]
Carpet/Rug	Falls	612, 613, 676
Chairs/Sofas	Falls; Overexertion; Struck Against/By	670, 671, 679, 4074
Clothing	Falls	1644, 1645, 1646, 1647, 1658, 1677
Clothing/Footwear[55]	Overexertion	1644, 1645, 1646, 1647, 1658, 1677; 1615
Counters/Sinks	Falls	648, 1864, subset of 699[56]
Elevators/Escalators	Falls	1889, 1890, 1891
Exercise Activity	Falls; Overexertion	3299
Floor (no other products)	Falls	1807
Footwear	Falls	1615
Furniture (various)	Falls; Struck Against/By	519, 604, 1820, 4013, 4014, 4056, 4057, 4079

[52] The source for product codes and descriptions is the NEISS Coding Manual (January 2024). The January 2024 NEISS coding manual can be found at: January 2024 NEISS Coding Manual (cpsc.gov).
[53] Cases involving a faucet in a bathtub or shower are included in the Bathtubs/Showers subcategory.
[54] Broom and vacuum cases are found by reading every case narrative with product code 480.
[55] The Clothing and Footwear subcategories are combined to create the Clothing/Footwear subcategory under the Overexertion hazard category. Most of these Overexertion injuries occur while putting on or taking off clothing or footwear, or situations akin to when a patient steps on their own ankle or their foot gets stuck and their ankle gets twisted due to socks or footwear.
[56] Cases involving a faucet in a sink are included in the Counters/Sinks subcategory.

House Structure Surfaces	Falls; Struck Against/By	137, 138, 638, 1808, 1826, 1828, 1829, 1854, 1863, 1870, 1878, 1884, 1885, 1886, 1888, 1892, 1893, 1894, 4055, subset of 1820[57]
Kitchen	Falls	214, 263, 264, 276, 278, 279, 280, 281, 367
Knives	Cut/Pierce	218, 240, 421, 444, 464, 836
Ladders	Falls	618, 620, 4077, 4078
Outdoor Work/Lawn Tools	Falls; Overexertion; Struck Against/By	1401, 1402, 1403, 1406, 1407, 1408, 1409, 1413, 1414, 1415, 1425, 1426, 1427, 1430, 1431, 1432, 1433, 1439, 1441, 1445, 1447, 1448, 1449, 1450, 1452, 1453, 1454, 1455, 1456, 1457, 1460, 1461, 1463, 1464, 1465, 1466, 1887, subset of 888[58], subset of 893[59]
Pet Products	Falls	1715
Ramps/Stairs/Steps	Falls; Overexertion;	1840, 1842, 1843
Recreation/Sports	Falls; Overexertion	1200, 1205, 1206, 1207, 1208, 1211, 1212, 1215, 1235, 1257, 1258, 1260, 1261, 1264, 1266, 1267, 1269, 1270, 1272, 1275, 1276, 1279, 1282, 1295, 1299, 3200, 3203, 3216, 3217, 3222, 3223, 3234, 3235, 3236, 3245, 3247, 3254, 3255, 3256, 3257, 3260, 3261, 3265, 3272, 3276, 3277, 3278, 3282, 3283, 3284, 3297, 5030, 5031, 5032, 5034, 5041
Saws	Cut/Pierce	830, 832, 841, 842, 843, 845, 864, 875, 894, 895,1411
Stools	Falls	4025, 4080
Toilets	Falls	649
Waste	Falls	413

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

The remaining product codes involving non-riding consumer products are all accounted for in the Other subcategories for each category in the Non-Riding Product Mechanical hazard tiers and include the following product codes: 102, 106, 107, 110, 112, 113, 114, 115, 116, 118, 119, 125, 127, 131, 132, 133, 134, 136, 139, 140, 212, 213, 215, 216, 217, 219, 221, 222, 223, 224, 227, 231, 232, 234, 235, 236, 237, 241, 242, 252, 255, 268, 269, 270, 271, 274, 275, 277, 304, 305, 306, 307, 308, 309, 310, 311, 312, 316, 318, 322, 334, 336, 340, 342, 346, 348, 365, 371, 372, 373, 374, 378, 379, 380, 381, 384, 388, 390, 391, 392, 393, 394, 399, 401, 405, 408, 412, 416, 417, 419, 420, 422, 427, 428, 429, 431, 432, 434, 435, 436, 438, 443, 450, 452, 453, 460, 461, 462, 463, 465, 466, 469, 471, 474, 477, 478, 480, 481, 482, 529, 530, 531, 532, 533, 536, 545, 546, 547, 549, 550, 552, 555, 556, 557, 558, 559, 561, 562, 563, 565, 566, 567, 569, 571, 572, 573, 574, 575, 576, 606, 617, 623, 627, 628, 639, 650, 651, 652, 653, 654, 657, 663, 666, 669, 672, 685, 689, 692, 693, 698, 701, 702, 704, 706, 707, 709, 710, 711, 712, 713, 714, 803, 804, 805, 807, 808, 809, 814, 815, 819, 820, 821, 823, 827, 828, 829, 833, 834, 835, 837, 847, 852, 854, 855, 856, 857, 858, 859, 862, 866, 868, 869, 870, 871, 874, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 890, 896, 897, 898, 899, 904, 905, 908, 909, 910, 913, 914, 915, 917, 920, 921, 925, 926, 927, 929, 930, 931, 932, 933, 934, 936, 937, 938, 940, 941, 942, 945, 949, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 1023,

[57] Cases of doorknobs with either a description of a door or no additional information other than a ‘doorknob’ is mentioned in the case narrative are included in the House Structure Surfaces subcategory.
[58] Pressure washer cases are included in the Outdoor Work/Lawn Tools subcategory.
[59] Cases involving tools used to trim bushes, shrubs, or trees, as well as tools used for garden and lawn work are included in the Outdoor Work/Lawn Tools subcategory.

1053, 1102, 1103, 1107, 1112, 1116, 1120, 1122, 1123, 1124, 1125, 1127, 1128, 1130, 1131, 1133, 1134, 1135, 1136, 1137, 1138, 1139, 1140, 1143, 1144, 1145, 1217, 1233, 1234, 1237, 1240, 1242, 1243, 1244, 1271, 1273, 1274, 1277, 1278, 1284, 1293, 1301, 1309, 1310, 1313, 1314, 1319, 1322, 1325, 1326, 1327, 1328, 1330, 1338, 1342, 1344, 1345, 1346, 1347, 1349, 1350, 1352, 1353, 1354, 1362, 1365, 1376, 1381, 1389, 1390, 1392, 1393, 1394, 1395, 1398, 1399, 1462, 1502, 1505, 1506, 1508, 1509, 1510, 1511, 1512, 1513, 1515, 1517, 1519, 1520, 1522, 1524, 1525, 1526, 1528, 1529, 1531, 1533, 1535, 1537, 1539, 1542, 1543, 1544, 1545, 1548, 1549, 1550, 1551, 1552, 1553, 1554, 1555, 1556, 1557, 1558, 1560, 1561, 1562, 1602, 1604, 1605, 1606, 1607, 1610, 1612, 1613, 1616, 1617, 1618, 1619, 1622, 1623, 1625, 1634, 1637, 1638, 1641, 1643, 1650, 1651, 1654, 1659, 1660, 1661, 1662, 1664, 1667, 1669, 1671, 1678, 1679, 1680, 1682, 1683, 1684, 1685, 1686, 1687, 1688, 1689, 1690, 1701, 1710, 1711, 1712, 1714, 1718, 1719, 1720, 1726, 1728, 1729, 1730, 1731, 1733, 1734, 1735, 1736, 1738, 1739, 1740, 1741, 1742, 1803, 1812, 1816, 1818, 1819, 1821, 1857, 1865, 1866, 1871, 1876, 1895, 1898, 1899, 1936, 2300, 3218, 3219, 3221, 3224, 3253, 3229, 3230, 3233, 3246, 3248, 3249, 3250, 3251, 3252, 3262, 3273, 3274, 3279, 3289, 3290, 3291, 3293, 3294, 3295, 3298, 4004, 4005, 4008, 4011, 4039, 4041, 4042, 4045, 4047, 4058, 4060, 4061, 4062, 4063, 4065, 4066, 4067, 4068, 4070, 4071, 4081, 4083, 4084, 4802, 5001, 5005, 5006, 5007, 5010, 5011, 5013, 5015, 5016, 5017, 5018, 5019, 5020, 5021, 5029, 5037, 5038, 5043, 5555, and subsets[60] of 699, 888, 893, and 1820. The corresponding products for these product codes can be found in the 2024 NEISS Coding Manual.

Recall that for non-consumer products appearing in Table 36 in Appendix A, staff gave precedent to their narratives over their product codes while categorizing cases. Also recall, the ***primary variables*** of interest in determining inclusion and exclusion of cases, as well as determining which categories and subcategories cases were placed are Cause, fire involvement (i.e., fmv), product code (i.e., prod1, prod2, and prod3), primary diagnosis (i.e., diag1), primary body part (i.e., bdpt), and case narrative. Combinations of these primary variables were used to form methodology for where certain groups of similar combinations of hazards and products were placed in both category and subcategory below. That is, hazard in concert with product determines both hazard and product categories.

For instance, a case narrative describing someone who is found to be lightheaded while running for exercise (i.e., product code 3299) or golfing (i.e., product code 1212) is placed in the Overexertion category and Exercise Activity subcategory for the running injury and the Recreation/Sports subcategory for the golfing injury, since the consumer product or activity performed in these examples are not sedentary. On the other hand, a case narrative describing someone who is found to be lightheaded while sitting in a chair or while playing cards is placed in the Other/Unknown category and subcategory, since the consumer product or activity performed is sedentary based.

For Non-Riding Product Mechanical hazard tier cases, if only one product is coded among the three product codes (i.e., no product is coded in prod2 or prod3), then the case was placed into the corresponding subcategory that the product belongs to in Table 40. If the single product coded does not belong to any of the product/hazard subcategories, then the case was placed in the category's Other subcategory. Similarly, if only products from a single subcategory

[60] Among the subsets of each of these product codes are various products of which some cases from each product code are included in some subcategories in Table 40 and the remaining cases from these product codes are part of Other subcategories. Refer to other footnotes above for specifics on which products among these product codes are included in subcategories in the table.

are coded for a case, then the case was placed in the corresponding subcategory. Also, cases where only products from a single subcategory are coded in concert with non-consumer products listed in Table 36 in Appendix A were placed in that subcategory.

When products from two or three different product subcategories from a particular category are coded for a single case, hierarchy or methodology is implemented to determine which product subcategory to place these cases. Where hierarchy is not implemented, staff read each case narrative, and considered other relevant variables, to determine which category and subcategory a case should be placed. The hierarchy and methodology used to determine which subcategory to place cases where two or three consumer products from different product subcategories are involved in a single incident are described below.[61]

Cut/Pierce Subcategory

For Cut/Pierce category cases, the potential subcategories a case can belong to are Knives, Saws, and Other. For Cut/Pierce category cases, products in the Knives and Saws subcategories had precedence over all other products. Staff read several dozen narratives of cases coded as cut injuries (i.e., Cause = 8) involving a knife (i.e., product codes: 218, 240, 421, 444, 464, 836) or saw (i.e., product codes: 830, 832, 841, 842, 843, 845, 864, 875, 894, 895,1411) to find every case related to a cut injury associated with a knife or saw, regardless of other products coded or described in case narratives; and, from that, staff decided that if such a Cut/Pierce case involves a knife or saw, but not both, then that case was placed into the respective Knives or Saws subcategory. There were three cases where a knife and a saw were both coded, and their case narratives were read to determine which product subcategory to place each case based on which product is more primarily responsible for the more serious injury.

In addition, all narratives from cases with Cause not coded as a Cut/Pierce injury (e.g., Cause ≠ 8), but which included as coded products a knife or saw, were read to determine if a knife or saw caused a cut or piercing injury. If a patient contacted a knife or saw resulting in a laceration injury, during a fall or during a struck against or struck by incident scenario, then the case was placed in the Cut/Pierce category and in the respective Knives or Saws subcategory. If a saw kicked back and there was contact with the saw resulting in a laceration, then the case was placed in the Cut/Pierce category and Saws subcategory. If wood or something else being cut kicked back and there was no contact with the saw, then the case was placed in the Struck Against/By category, on account of being struck by something while using a saw. Sawdust eye abrasions were placed in the Struck Against/By category, while small pieces of wood getting lodged in the eye were placed in the Foreign Body category. In cases where a foreign body is present as a result of a body cut, impaling, or laceration injury, then the case was placed in the Cut/Pierce category.

Falls Subcategory

Methodology Based on Product Code

For Falls category cases, the potential subcategories a case can belong to are Balconies/Decks/Porches, Bathtubs/Showers, Beach Chairs/Benches/Bleachers, Beds, Boxes, Brooms/Mops/Vacuums, Chairs/Sofas, Clothing, Counters/Sinks, Elevators/Escalators, Exercise

[61] Recall that each NEISS case may have up to three products coded in variables prod1, prod2, and prod3.

Activity, Floor (no other products), Footwear, Furniture (various), House Structure Surfaces, Kitchen, Ladders, Outdoor Work/Lawn Tools, Pet Products, Carpet/Rug, Recreation/Sports, Ramps/Stairs/Steps, Stools, Toilets, Waste, and Other. Hierarchy, or precedence of some subcategories over others, is implemented for Falls category cases when products from two or three different subcategories are coded for a single case. Case narratives of all non-riding product mechanical hazard cases not coded as Falls in the Cause variable (i.e., Cause ≠ 6) which include “fall” or “fell” in the case narrative were read to determine if cases should be placed in the Falls category.

Cases involving a fall generally take precedence over the other mechanical hazard categories because the nature of a fall often exacerbates or causes additional injuries in many incident scenarios. The most common hazard accompanying Falls is Struck Against/By scenarios—namely, a collision then a fall, or a fall then a collision. If a case involves a fall and a collision (e.g., Struck Against/By), then the case was placed in the Falls category unless the narrative appears to indicate that the collision caused a more serious injury than the fall.

An example of a case involving a collision and a fall where the case was placed in the Struck Against/By category is a person running into a wall and striking his head (causing a lump on the head), and then falling onto his bottom (causing a small bruise to the bottom). In this case, the narrative mentions bruising caused by the fall, but the lump on the head caused by the collision which initiated the injury incident scenario is the more serious reported injury, or primary reason, for the ED-visit. If this same example added details of a broken hip or broken wrist injury caused by the fall, then the case would likely be placed in the Falls category, since a broken hip or wrist clearly requires ED-treatment whereas a lump on the head does not necessarily require ED-treatement and in this example did not elaborate on the severity of the head injury.

The first hierarchy implemented is that all products from all other subcategories, including products not included in any subcategory, take precedence over the **Floor (no other products)** subcategory in Falls category cases. Thus, all cases in the Falls category and Floor (no other products) subcategory did not involve any other consumer products. Most cases of Falls while carrying products and Falls following tripping over products and landing on the floor were placed into the Falls category and product subcategory of the product being carried or tripped over, instead of the Floor (no other products) subcategory.

If the consumer product that is tripped over is not coded or mentioned in the case narrative, and instead the consumer product which the patient falls into is the only product coded or mentioned in the case narrative, other than the floor, then the case was placed into the accompanying subcategory of the product into which the patient fell. For example, if a case narrative describes a person tripping over a dog toy and falling into a wall, then the case was placed in the Pet Products subcategory because the dog toy caused the fall. If a case narrative describes a person tripping and falling into a wall, where no object tripped over is mentioned and no tripped over product is coded, then the case was placed in the Falls category and House Structure Surfaces subcategory because the wall is the only product other than the floor coded or mentioned. Cases of falling while tripping over footwear or while getting dressed were placed in the Footwear or Clothing subcategory, respectively.

Cases of falling out of non-consumer products, such as a wheelchair or mobility scooter onto the floor or falls to the floor where no other product is coded or mentioned in case

narratives as contributing to the fall, were placed in the Falls category and Floor subcategory. Wheelchairs and mobility scooters that are medical devices are not under CPSC's jurisdiction and are therefore ignored when placing the case in the Floor (no other products) subcategory.

Another product subcategory hierarchy implemented in the Falls category is that the **Ramps/Stairs/Steps** subcategory takes precedence over every other Falls subcategory, including all products in the catchall Other Falls subcategory, with the exception of products in the **Balconies/Decks/Porches, Ladders,** and **Pet Products** subcategories. If a product from Ramps/Stairs/Steps and Balconies/Decks/Porches are both coded, then usually the stairs are coded as the stairs that are part of a balcony, deck, or porch, which is why these Falls category cases were placed in the Balconies/Decks/Porches subcategory. Falls caused by dogs who jerk or pull a person holding onto a dog leash were placed in the Pet Products subcategory regardless of location of occurrence, including while on stairs. For cases where Ladders and Ramps/Stairs/Steps products are both coded for a single case, narratives were read to determine which Falls category product subcategory to place each case. If one of the products coded is from the **Ladders** subcategory, and no product is coded from the Ramps/Stairs/Steps subcategory, then the case was placed in the Ladders subcategory, regardless of whether any products are coded from other subcategories. In other words, Ladders take precedence over every Falls subcategory except for the Ramps/Stairs/Steps subcategory.

Therefore, any case involving a fall on **Ramps/Stairs/Steps** where any other consumer product is also involved, such as carrying a consumer product like laundry or furniture or tripping over a consumer product like a toy while on stairs, other than while on a balcony, deck, or porch (stair), while working on a ladder on stairs, or while falling due to force applied by a leashed dog, was placed in the Falls category and Ramps/Stairs/Steps subcategory. Similarly, the Ramps/Stairs/Steps subcategory takes similar precedence for Overexertion injuries, such that all Overexertion injury cases while carrying any consumer product up or down stairs was placed in the Overexertion category and Ramps/Stairs/Steps subcategory.

If one of the product codes from the **Balconies/Decks/Porches** subcategory is coded, and no product is coded from the **Ladders** subcategory, then the case was placed in the Balconies/Decks/Porches subcategory, regardless of whether any products are coded from other subcategories. In other words, Balconies/Decks/Porches take precedence over every Falls subcategory except for the Ladders subcategory. If a Ladders product and a Balconies/Decks/Porches product are both coded in the Falls category, then the case was placed in the Ladders subcategory. With no indication of any steps present in these cases, when a ladder and a balcony, deck, or porch are associated with Falls, the product more likely to be responsible for the injury is the ladder in almost all instances, including while carrying a ladder and falling.

Regarding **Pet Products** cases, all case narratives were read for cases with product code 1715 (i.e., Pet supplies [excluding foods and medicines]). Almost all of these cases involve a dog and a dog leash, where the dog leash is the consumer product. Almost all Falls cases involving pet leashes were placed in the Falls category and Pet Products subcategory, due to a dog on a leash being the primary cause of these injuries instead of other product subcategories, except for cases involving balconies, ladders, or stairs. Even for other cases without product code 1715, if a case narrative implies a dog is being walked, then it is assumed that the dog leash is part of the incident scenario. Other Falls category Pet Products subcategory cases involve tripping and falling over pet products such as dog beds, gates, and toys, among many

other pet products. Most cases of dogs jerking leashes without a fall occurring are placed in the Overexertion's Other subcategory due to body parts such as wrists or fingers suddenly getting pulled too hard, ankles or knees getting twisted, or other overexertion injuries. Additional examples of included and excluded cases involving Pet Products can be found in the animal- or bug-related section above Table 37 in Appendix A.

Another product subcategory hierarchy implemented in the Falls category pertains to the **House Structure Surfaces** subcategory. When a House Structure Surfaces product (e.g., ceilings, doors, or walls) is coded along with another non-riding consumer product other than floors, then that other product takes precedence over the House Structure Surface product, and the case was placed in the subcategory in which that other product belongs, which includes products not belonging to any Falls subcategories. If only products from the House Structure Surfaces and Floor (no other products) categories are coded for a single case, then the case was placed in the House Structure Surfaces subcategory.

The only cases not covered using the hierarchy described above are cases where a product from at least two different Falls subcategories were coded for a single case, and no products from the following subcategories are coded among the three product codes: Balconies/Decks/Porches, Floor (no other products), House Structure Surfaces, Ladders, Pet Products, and Ramps/Stairs/Steps. Every case involving any products from these six Falls subcategories is determined by hierarchy and methodology described above. To summarize the first set of hierarchy of product subcategories in the Falls category described above:

- The Balconies/Decks/Porches subcategory takes precedence over every subcategory except for the Ladders subcategory, such that the Ladders subcategory takes precedence over the Balconies/Decks/Porches subcategory.
- The Ladders subcategory takes precedence over every subcategory except for the Ramps/Stairs/Steps subcategory, and every case narrative wass read when products from these two subcategories are coded.
- The Ramps/Stairs/Steps subcategory takes precedence over every subcategory except for the Balconies/Decks/Porches, Ladders, and Pet Products subcategories.
    - Balconies/Decks/Porches products have precedence over Ramps/Stairs/Steps products.
    - Every narrative was read to determine which subcategory to place cases where Ramps/Stairs/Steps and Ladders, or Ramps/Stairs/Steps and Pet Products, are coded for a single case.
- Every subcategory takes precedence over the Floor (no other product) subcategory, so every case in the Floor subcategory involves no other consumer products coded or mentioned in case narratives.
- Every subcategory takes precedence over the House Structure Surfaces subcategory, except for the Floor (no other product) subcategory, so every case in the House Structure Surfaces subcategory involves no other consumer products coded or mentioned in case narratives.
- All cases involving Pet Products are read to determine which subcategory to place cases.
    - Cases of injuries caused by a dog who jerks or pulls a person via a dog leash take precedence over every subcategory, including while on stairs.

- Cases of tripping and falling over Pet Products are placed in the Pet Products subcategory regardless of location of occurrence.
- Most cases of handling a dog on a leash while the dog suddenly jerks the leash or a person gets caught in the leash and not resulting in a fall, which involves various types of applied forceful pressure to fingers, hands, or other body parts by the leash are placed in the Overexertion category and Other subcategory, since there is no Overexertion subcategory for Pet Products.
- Most cases of being jerked or pulled by a dog on a leash resulting in a collision and not a fall are placed in the Struck Against/By category and Other subcategory, since there is no Struck Against/By subcategory for Pet Products.
- Cases of dogs causing people to fall by jerking a dog leash held by the person were placed in the Pet Products subcategory, and just about every other Falls case involving Pet Products and Ramps/Stairs/Steps were placed in the Ramps/Stairs/Steps subcategory.

The next Falls hierarchy gives precedence to products in the following subcategories over all products not belonging to any Falls subcategory (i.e., all products in the catchall Falls category Other subcategory): Bathtubs/Showers, Beds, Chairs/Sofas, Clothing, Elevators/Escalators, Exercise Activity, Footwear, Pet-Related, and Stools. Therefore, if only products from the Falls' Other subcategory and only one product from one of the above subcategories are coded for a single case, then the case was placed in the subcategory that is not the Other subcategory. Similarly, in the same scenario where one product from one of the above categories is coded and one product from the Other subcategory is coded and the Floor (no other products) product is coded (i.e., the only Floor product code is 1807) or a House Structure Surfaces product is coded, then the case was placed in the respective subcategory in the list above.

Falls Subcategory Methodology Based on Narrative Incident Scenario

At this point, every Falls case with at least one product coded from one of the following subcategories has been placed into an appropriate subcategory: Balconies/Decks/Porches, Floor (no other products), House Structure Surfaces, Ladders, Pet Products, and Ramps/Stairs/Steps. For the remaining cases not placed into a Falls subcategory according to the hierarchy described above, each case narrative was read to determine which subcategory to place each case. The following are brief summaries of what kinds of products and scenarios are involved in the majority of case narratives, along with examples of how some cases were placed when products from two or more of the remaining subcategories are coded for a single case.

In most incident scenarios, of the remaining Falls subcategory products not addressed by the hierarchy methodology above, the following Falls category subcategories have hierarchical preference: Boxes, Brooms/Mops/Vacuums, Elevators/Escalators, Exercise Activity, Kitchen, Outdoor Work/Lawn Tools, and Recreation/Sports. Those subcategories take precedence over the remaining subcategories: Bathtubs/Showers, Beach Chairs/Benches/Bleachers, Beds, Carpet/Rug, Chairs/Sofas, Clothing, Counters/Sinks, Footwear, Furniture (various), Stools, Toilets, and Waste.

For example, Falls cases involving exercising while on beds or chairs were placed in the Exercise Activity subcategory; slipping while wearing slippers while sweeping, mopping, or vacuuming were placed in the Brooms/Mops/Vacuums subcategory, as were cases of moving furniture or chairs while sweeping, mopping, or vacuuming; and falls involving dishwashers,

ranges, refrigerators, or counters were placed in the Kitchen subcategory rather than the Counters/Sinks subcategory. Footwear issues while exercising or playing sports were put into the respective Exercise Activity or Recreation/Sports subcategory.

The following are some categorization decisions made when two of these subcategories are coded for a single case. Falls while carrying Boxes on Elevators/Escalators were placed in the Elevators/Escalators subcategory. Falls while moving large Kitchen appliances such as a refrigerator or stove while on an elevator were placed in the Kitchen subcategory due to the appliances being large, heavy, and hard to handle; but Falls while moving these appliances while on an escalator were placed in the Elevators/Escalators subcategory due to escalators being similar to stairs and stairs generally taking precedence over almost all other products when placing cases into subcategories. There were no Falls while doing an Exercise Activity on Elevators/Escalators, but, if there were, such cases would have been placed in the Elevators/Escalators subcategory since escalators are similar to stairs.

Most **Boxes** subcategory cases where other subcategory products under Falls are coded include slipping on or tripping over boxes, carrying boxes, or standing on boxes and falling, while coming into contact with other consumer products during the incident scenario; and these cases were placed in the Boxes subcategory.

Most **Brooms/Mops/Vacuums** subcategory cases where other subcategory products under Falls are coded involve falls to the floor, and some cases involve falling over or into chairs, furniture, or other products; and these cases were placed in the Brooms/Mops/Vacuums subcategory.

Most **Elevators/Escalators** subcategory cases where other subcategory products under Falls are coded involve Clothing, Footwear, or luggage getting caught in the Elevators/Escalators; and these cases were placed in the Elevators/Escalators subcategory.

Most **Exercise Activity** subcategory cases where other subcategory products under Falls are coded involve Carpet/Rug products; and these cases were placed in the Exercise Activity subcategory. For instance, cases of a senior exercising on a bed, box, chair, or sofa and falling to a rug or carpeted floor were placed in the Exercise Activity subcategory.

Most **Kitchen** subcategory cases where other subcategory products under Falls are coded involve falling (without mention of any items slipped or tripped on) into, over, or while moving dishwashers, refrigerators, or ovens, or the doors of these products, or while stuck between the appliance and a wall or other products. The following consumer products are coded in many Kitchen Falls cases: dishes, counters and sinks, kitchen cabinets, dollies, and other various products found or used in a kitchen. All of these cases were placed in the Kitchen category.

Most **Outdoor Work/Lawn Tools** subcategory cases where other subcategory products under Falls are coded involve various cases such as removing ice from vehicles or driveways, transporting lawnmowers to and from motor vehicles, retrieving mail, hose-related activities including tripping over hoses, or other various products involved during lawn, garden, or other outdoor work. Some consumer products coded in many Outdoor Work/Lawn Tools Falls cases are bags, boxes, footwear, motor vehicles, and paper products (mail).

Most **Recreation/Sports** subcategory cases where other subcategory products under Falls are coded include other products that are involved while taking part in a sport or

recreational activity were placed in the Recreation/Sports subcategory, unless the sport or recreation is not part of the incident scenario. For example, if a person trips over a product and falls into exercise equipment, then the case was placed into the subcategory in which the tripped over product belongs. For example, dancing is a recreational activity in the Recreation/Sports subcategory, and so cases of dancing and falling into products like chairs or other consumer products were placed in the Recreation/Sports subcategory. Just about any other Falls case involving products from other subcategories was placed in the Recreation/Sports subcategory.

The following paragraphs detail the methodology staff used to place the remaining Falls category cases (e.g., Bathtubs/Showers, Beach Chairs/Benches/Bleachers, Beds, Carpet/Rug, Chairs/Sofas, Clothing, Counters/Sinks, Footwear, Furniture [Various], Stools, Toilets, and Waste) into appropriate subcategories based on narrative incident scenarios.

For Falls cases while transitioning from **Beds** to **Chairs/Sofas**, the case was placed in the Beds subcategory. Conversely, for cases of Falls while transitioning from Chairs/Sofas to Beds, the case was placed in the Chairs/Sofas subcategory. Similarly, the same logic is applied to transitions to and from Beds and bedside commodes (e.g., **Toilets**), where the product that the patient is exiting is the subcategory where the case was placed.

Falls cases while transitioning between a wheelchair or walker to and from a bed, chair, sofa, or toilet were all placed in the Falls category and the respective Beds, Chairs/Sofas, or Toilets subcategory, since wheelchairs and walkers that are medical devices are not considered consumer products under CPSC's jurisdiction.

For cases of falling, slipping, or tripping while getting in, off, or out of Beds, Beach Chairs/Benches/Bleachers, Chairs/Sofas, Stools, and Toilets, the cases were placed in the respective subcategory, which includes cases of slipping on a carpet, floor, or rug product or while wearing footwear or socks and slipping while getting in, off, or out of these products.

Case narratives describing falling, slipping, or tripping on a **Carpet/Rug** or **Floor**, and the narrative implies the fall, slip, or trip is related to a sock (**Clothing**) or **Footwear**, then the case was placed in the respective Clothing or Footwear subcategory. If a case narrative describes a scenario where a sock or shoe is caught on a Carpet/Rug in some way, then the cases was placed in the Carpet/Rug subcategory. Narratives of most cases placed in the Footwear subcategory describe the footwear as being responsible for the ED-visit.

While dressing or undressing or putting on or taking off footwear while sitting on any product, the case was placed in the respective **Clothing** or **Footwear** subcategory, which includes cases of dressing or putting on footwear while on a bed, chair, sofa, or toilet and falling. When pulling pants up or down while using a toilet, the case was placed in the **Toilets** subcategory.

Most **Waste** subcategory cases where other subcategory products under Falls are coded involved the products inside the waste or garbage can, the activity of throwing away products conceived as trash, or contacting other products while moving trash receptacles, where other products are part of the incident scenario. Other products commonly coded in these Waste Falls cases are motor vehicles and items thrown into the trash.

Other Falls category cases involving multiple products were categorized according to which product was most responsible for the ED-visit based on narrative descriptions of the incident scenario.

Foreign Body Subcategory

There are no foreign body subcategories analyzed in Table 14 through Table 24; the same cases appearing in the Foreign Body category in Table 3 through Table 13 are seen in Table 14 through Table 24. All of the methodology and analysis by products for foreign body injuries can be found under the Cut/Pierce and Foreign Body sections in Appendix D.

Overexertion Subcategory

For Overexertion category cases, the potential subcategories a case can belong to are Beds, Boxes, Chairs/Sofas, Clothing/Footwear, Exercise Activity, Outdoor Work/Lawn Tools, Ramps/Stairs/Steps, Recreation/Sports, and Other. Hierarchy, or precedence of some subcategories over others is implemented for Overexertion category cases when products from two or three Overexertion subcategories are coded for a single case.

First, if one of the product codes from the **Ramps/Stairs/Steps** subcategory is coded, then the case was placed in the Ramps/Stairs/Steps subcategory, regardless of whether any products are coded from other subcategories.

Next, if one of the product codes from the **Recreation/Sports** subcategory is coded, and no product codes from the Ramps/Stairs/Steps subcategory are coded, then the case was placed in the Recreation/Sports subcategory, regardless of whether any products are coded from other subcategories.

For the rest of the cases in the Overexertion category that do not have any Ramps/Stairs/Steps or Recreation/Sports products coded, each narrative was read to determine which subcategory to place each case.

Exercise Activity cases generally take precedence over the remaining Overexertion category cases, including doing stretches or workouts on Beds or Chairs/Sofas, and jumping on Boxes.

Boxes cases generally take precedence over Beds and Chairs/Sofas, including placing Boxes on Beds or Chairs/Sofas.

The **Clothing/Footwear** Overexertion subcategory combines clothing and footwear products since both require similar body motions and because their separate estimates for Overexertion injuries are too small to analyze in the Tables in this report, while Clothing and Footwear are separate subcategories under Falls because of their larger frequencies.

Similar to the way Clothing and Footwear are subcategorized in the Falls category, Overexertion category Clothing/Footwear subcategory cases include the following scenarios: while putting on or taking off clothing or footwear, or while dressing or undressing while sitting on a bed, chair, or sofa. Other cases include Overexertion while moving laundry and injuries similar to rolling or twisting an ankle or stepping on an ankle while wearing socks or footwear.

Beds and **Chairs/Sofas** Overexertion cases are mostly due to injuries from moving around in, or getting in or out of, a bed, chair, or sofa, none of which involve a fall.

Struck Against/By Subcategory

For Struck Against/By category cases, the potential subcategories a case can belong to are Beds, Chairs/Sofas, Furniture (various), House Structure Surfaces, Outdoor Work/Lawn Tools, and Other. Every case narrative was read for struck cases coded by the Cause variable (i.e., Cause = 7) which also included more than one of the above product subcategories to determine which subcategory to place these cases.

While most cases where a patient falls into or falls after making contact with a consumer product were placed in the Falls category, if the case narrative appears to indicate that the primary ED-treated injury is caused by a Struck Against/By injury and the fall likely did not contribute to any additional serious injuries, then the case was placed in the Struck Against/By category.

Struck Against/By cases involving **Beds** and **Chairs/Sofas** include making contact with bed, chair, or sofa products in various ways, including while laying or sitting, walking into, or braising or hitting body parts, like stubbing toes. Struck Against/By cases involving **Outdoor Work/Lawn Tools** consist of a wide array of outdoor tool products either directly making contact with the victim, or indirectly doing so via contacting environmental elements, which includes grass, plant, or tree debris striking eyes as a result of lawn work or cutting brush, bushes, trees, or tree branches.

Struck Against/By category cases placed in the respective **Furniture (various)** and **House Structure Surfaces** subcategories include the following: consumer products that fall off of or out of a cabinet, shelf, wall, or other furniture product or house structure; while interacting with a house structure or if some product falls off or bounces off a wall before contacting the patient; injuries resulting from contact with furniture or house structures, which includes hitting fingers with a hammer while hanging mirrors or picture frames on the wall; and ceilings falling on individuals. Cases of a body part getting smashed or struck between a product and a wall or house structure were placed in the House Structure Surfaces subcategory. Cases of body parts stuck or smashed between a table and chair were placed in the Struck Against/By category and Furniture (various) subcategory. Most cases of getting stuck or entrapped are included in the Struck Against/By category, whereas most cases of attempting to get out of an entrapment were placed in the Overexertion category.

Additional Data Checks

Additional steps were implemented to assure data consistency and quality over all categories and subcategories, particularly reading narratives containing certain keywords to determine which category and subcategory cases should be placed, or whether a case should be included or excluded. The following are some ‘catchall’ product codes that include a wide array of products which staff read the case narrative to determine which category and subcategory a case was placed.

Many cases coded product code 888 **(Sprayers, not elsewhere classified)** involve Falls or Overexertion injuries while using a pressure washer, and these cases are designated to the **Outdoor Work/Lawn Tools** subcategory on a case-by-case basis.

Many cases coded product code 893 **(Tools, not specified)** involve Falls or Overexertion injuries while using tools to trim bushes, shrubs, or trees, as well as tools used for

garden and lawn work, and these cases are designated to the **Outdoor Work/Lawn Tools** subcategory on a case-by-case basis.

Many cases coded product code 1820 **(Cabinet or door hardware)** involve Falls or Struck Against/By injuries involving a doorknob with either a description of a door or no additional information other than a 'doorknob' mentioned in the case narrative, and these cases are designated to the **House Structure Surfaces** subcategory on a case-by-case basis.

Most cases coded product code 699 **(Faucets or spigots)** involve both subcategories **Bathtubs/Showers** and **Counters/Sinks**; narratives of such cases were read to determine which of these subcategories a case was placed. Most of the cases involving this product code are in the Struck Against/By category, where Struck Against/By cases involving Bathtubs/Showers and Counters/Sinks were placed in the Other subcategory (estimates for Struck Against/By injuries for these two subcategories is shown in Table 46 in Appendix D). Falls cases in which only a faucet is coded without a bathtub or sink coded, or if a case narrative does not mention one of these products, were placed in the Other subcategory, unless a different product was also coded (e.g., a garden hose, placed in the Outdoor Work/Lawn Tools subcategory).

Appendix C: CDC NCHS Mortality Data ICD-10 Code Categories

Table 41 shows each ICD-10 code in which at least a proportion of deaths involves a consumer product, along with the product/hazard description for each ICD-10 code and the product/hazard tier and category the code belongs to in this report. Deaths are analyzed in Table 25 through Table 33.

Table 41: ICD-10 Codes and Product/Hazard Category, 2020-2022[62]

ICD-10 Code	ICD-10 Code Product/Hazard Description	Product/Hazard Category
Non-Mechanical Tier		
X10	Contact with hot drinks, food, fats and cooking oils	Burns (Contact with Hot Objects)
X11	Contact with hot tap-water	Burns (Contact with Hot Objects)
X12	Contact with other hot fluids	Burns (Contact with Hot Objects)
X13	Contact with steam and other hot vapors	Burns (Contact with Hot Objects)
X14	Contact with hot air and other hot gases	Burns (Contact with Hot Objects)
X15	Contact with hot household appliances	Burns (Contact with Hot Objects)
X16	Contact with hot heating appliances, radiators, and pipes	Burns (Contact with Hot Objects)
X17	Contact with hot engines, machinery, and tools	Burns (Contact with Hot Objects)
X18	Contact with other hot metals	Burns (Contact with Hot Objects)
X19	Contact with other heat and hot substances	Burns (Contact with Hot Objects)
Y27	Contact with steam, hot vapors and hot objects, undetermined intent	Burns (Contact with Hot Objects)
V90	Drowning and submersion due to accident to watercraft	Drowning
V92	Drowning and submersion due to accident on board watercraft, without accident to watercraft	Drowning
W65	Accidental drowning and submersion while in bath-tub	Drowning
W66	Drowning and submersion following fall into bath-tub	Drowning
W67	Accidental drowning and submersion while in swimming-pool	Drowning
W68	Drowning and submersion following fall into swimming-pool	Drowning
W73	Other specified cause of accidental non-transport drowning and submersion	Drowning
W74	Unspecified cause of accidental drowning and submersion	Drowning
Y21	Drowning and submersion, undetermined intent	Drowning
W85	Exposure to electric transmission lines	Electric Shock
W86	Exposure to other specified electric current	Electric Shock
W87	Exposure to unspecified electric current	Electric Shock
W36	Explosion and rupture of gas cylinder	Explosion
W37	Explosion and rupture of pressurized tire, pipe or hose	Explosion
W38	Explosion and rupture of other specified pressurized devices	Explosion
W39	Discharge of firework	Explosion
W40	Explosion of other materials	Explosion

[62] ICD-10 data descriptions can be found here: ICD-10 Version:2019 (who.int).

Y25	Contact with explosive material, undetermined intent	Explosion
X00	Exposure to uncontrolled fire in building or structure	Fire-Related
X02	Exposure to controlled fire in building or structure	Fire-Related
X04	Exposure to ignition of highly flammable material	Fire-Related
X05	Exposure to ignition or melting of nightwear	Fire-Related
X06	Exposure to ignition or melting of other clothing and apparel	Fire-Related
X08	Exposure to other specified smoke, fire and flames	Fire-Related
X09	Exposure to unspecified smoke, fire and flames	Fire-Related
Y26	Exposure to smoke, fire and flames, undetermined intent	Fire-Related
X45	Accidental poisoning by and exposure to alcohol	Poisoning
X46	Accidental poisoning by and exposure to organic solvents and halogenated hydrocarbons and their vapours	Poisoning
X47	Accidental poisoning by and exposure to other gases and vapours	Poisoning
X49	Accidental poisoning by and exposure to other and unspecified chemicals and noxious substances	Poisoning
Y15	Poisoning by and exposure to alcohol, undetermined intent	Poisoning
Y16	Poisoning by and exposure to organic solvents and halogenated hydrocarbons and their vapours, undetermined intent	Poisoning
Y17	Poisoning by and exposure to other gases and vapours, undetermined intent	Poisoning
Y19	Poisoning by and exposure to other and unspecified chemicals and noxious substances, undetermined intent	Poisoning
W75	Accidental suffocation and strangulation in bed	Suffocation
W76	Other accidental hanging and strangulation	Suffocation
W77	Threat to breathing due to cave-in, falling earth and other substances	Suffocation
W80	Inhalation and ingestion of other objects causing obstruction of respiratory tract	Suffocation
W81	Confined to or trapped in a low-oxygen environment	Suffocation
W83	Other specified threats to breathing	Suffocation
W84	Unspecified threat to breathing	Suffocation
Y20	Hanging, strangulation and suffocation, undetermined intent	Suffocation

Riding Consumer Products Tier		
V80	Animal-rider or occupant of animal-drawn vehicle injured in transport accident	Animal Riding
V10	Pedal cycle rider injured in collision with pedestrian or animal	Bicycles
V11	Pedal cycle rider injured in collision with other pedal cycle	Bicycles
V12	Pedal cycle rider injured in collision with two- or three-wheeled motor vehicle	Bicycles
V13	Pedal cycle rider injured in collision with car, pick-up truck or van	Bicycles
V14	Pedal cycle rider injured in collision with heavy transport vehicle or bus	Bicycles

V15	Pedal cycle rider injured in collision with railway train or railway vehicle	Bicycles
V16	Pedal cycle rider injured in collision with other nonmotor vehicle	Bicycles
V17	Pedal cycle rider injured in collision with fixed or stationary object	Bicycles
V18	Pedal cycle rider injured in noncollision transport accident	Bicycles
V19	Pedal cycle rider injured in other and unspecified transport accidents	Bicycles
V86	Occupant of special all-terrain or other off-road motor vehicle, injured in transport accident	Other Riding Products (Excluding Micromobility Products)
V88	Nontraffic accident of specified type but victim's mode of transport unknown	Other Riding Products (Excluding Micromobility Products)
V89	Motor- or nonmotor-vehicle accident, type of vehicle unspecified	Other Riding Products (Excluding Micromobility Products)

Non-Riding Product Mechanical Tier		
W25	Contact with sharp glass	Cut/Pierce
W26	Contact with other sharp objects	Cut/Pierce
W27	Contact with nonpowered hand tool	Cut/Pierce
W28	Contact with powered lawn mower	Cut/Pierce
W29	Contact with other powered hand tools and household machinery	Cut/Pierce
W45	Foreign body or object entering through skin	Cut/Pierce
Y28	Contact with sharp object, undetermined intent	Cut/Pierce
W23	Caught, crushed, jammed or pinched in or between objects	Entrapment
W00	Fall due to ice and snow	Falls
W01	Fall on same level from slipping, tripping and stumbling	Falls
W02	Fall involving ice-skates, skis, roller-skates or skateboards	Falls
W03	Other fall on same level due to collision with another person	Falls
W04	Fall while being carried or supported by other persons	Falls
W05	Fall from non-moving wheelchair, nonmotorized scooter and motorized mobility scooter	Falls
W06	Fall from bed	Falls
W07	Fall from chair	Falls
W08	Fall from other furniture	Falls
W09	Fall on and from playground equipment	Falls
W10	Fall on and from stairs and steps	Falls
W11	Fall on and from ladder	Falls
W12	Fall on and from scaffolding	Falls
W13	Fall from, out of or through building or structure	Falls
W14	Fall from tree	Falls
W15	Fall from cliff	Falls
W16	Fall, jump or diving into water	Falls
W17	Other fall from one level to another	Falls

W18	Other slipping, tripping and stumbling and falls	Falls
W19	Unspecified fall	Falls
Y30	Falling, jumping or pushed from a high place, undetermined intent	Falls
Y31	Falling, lying or running before or into moving object, undetermined intent	Falls
W44	Foreign body entering into or through eye or natural orifice	Foreign Body
W24	Contact with lifting and transmission devices, not elsewhere classified	Machinery
W31	Contact with other and unspecified machinery	Machinery
X50	Overexertion and strenuous or repetitive movements	Overexertion
W20	Struck by thrown, projected or falling object	Struck Against/By
W21	Striking against or struck by sports equipment	Struck Against/By
W22	Striking against or struck by other objects	Struck Against/By
W50	Accidental hit, strike, kick, twist, bite or scratch by another person	Struck Against/By
W51	Accidental striking against or bumped into by another person	Struck Against/By
Y29	Contact with blunt object, undetermined intent	Struck Against/By
W92	Exposure to excessive heat of man-made origin	Other/Unknown
W93	Exposure to excessive cold of man-made origin	Other/Unknown
W94	Exposure to high and low air pressure and changes in air pressure	Other/Unknown
X58	Exposure to other specified factors	Other/Unknown
X59	Exposure to unspecified factor	Other/Unknown
Y33	Other specified events, undetermined intent	Other/Unknown
Y34	Unspecified event, undetermined intent	Other/Unknown
Y86	Sequelae of other accidents	Other/Unknown

Source: U.S. Center for Disease Control and Prevention (CDC) National Center for Health Statistics (NCHS) mortality data.

Appendix D: Descriptions and Statistical Highlights for Injury and Death Categories and Subcategories

The sections below expound on the injury and death sections above by detailing the product/hazard tiers and the categories and subcategories they comprise by describing categorization decisions, defining which types of products and hazards encompass each category or subcategory, providing examples of products or typical incidents captured, and highlighting the proportions of products, product codes, or diagnoses which compose each category or subcategory.

NEISS ED-Treated Injury Categories

This section covers the injury categories in the following tiers presented in Table 3 through Table 13 above: the Non-Mechanical hazard tier; the Riding Consumer Products tier, including motor vehicle-related cases (see Table 42); and the Non-Riding Product Mechanical hazard tier, which also contains additional tables expounding on Cut/Pierce (Table 43), Foreign Body (Table 44), Overexertion (Table 45), Struck Against/By (Table 46) hazards, and Recreation/Sports category products encompassing Falls and Overexertion injuries (Table 47).

Non-Mechanical Hazard Tier

Non-Mechanical hazard tier injuries include the following categories: Fire-Related, Burns - Non-Fire Thermal, Burns – Scalding, Burns – Other/Electric Shock, Allergy/Dermatitis/Other Skin Issues, Anoxia/Aspiration/Submersion, Ingestion, and Poisoning.

Fire-related cases include all cases involving a fire, flame, or fire flashes, regardless of any other hazard or product involved. Smoke inhalation cases caused by heavy smoke from something burning, usually uncontrollably, and cases of injuries while attempting to escape an uncontrollable fire are included. Also included are cases involving brush, barrel, control, and encampment fires as well as exploding gasoline containers, propane containers, and oxygen tanks.

Meanwhile, fireworks cases that do not involve uncontrolled fires; exploding batteries, cell phones, and lighters; carbon monoxide leak cases; and injuries involving blow torches, welding equipment, and aerosol cans with no out-of-control fire are not considered fire-related. Fireworks cases coded as burns in the primary diagnosis variable (i.e., diag1 = 51) were placed in the Burns - Non-Fire Thermal category, while cases of inhaled smoke from fireworks were placed in the Anoxia/Aspiration/Submersion category, and most other fireworks cases of being struck by, or having body parts amputated due to, exploding fireworks were placed in the Struck Against/By category.

About 33.5 percent (3,800 injuries) of the estimated 11,300 annual average ED-treated fire-related injuries to seniors included **only** product code 1866 (i.e., General home or room involvement in fires), which includes house fire cases where the source of ignition is not known or specified. Although considered an excluded product code, about 10.7 percent (1,200 injuries) of the fire-related injuries to seniors involved product code 2400 (i.e., Medical equipment, general), of which almost all senior injuries with this product code involved a medical oxygen

tank along with an included consumer product, such as a cigarette lighter or a stove. Other cases involve a wide range of consumer products such as candles, fire pits, heating products, lighters, ovens, propane products, stove tops, and many other products which have potential to overheat and ignite through normal usage patterns.

Burns - Non-Fire Thermal cases include thermal burns from a heat source other than a flame of some sort caused by a consumer product.

Of the estimated 5,100 annual average ED-treated non-fire thermal burn injuries to seniors, 20.2 percent (1,000 injuries) included one of the four range product codes 278, 279, 280, or 281 (e.g., Electric, Gas, Other, or Unspecified Ranges or ovens), and 14.8 percent (800 injuries) included product code 110 (e.g., Electric heating pads). Other cases involved consumer products or consumer products used for the following activities: cooking, hot dinnerware, grooming, heating, heating pads, lighters, and any other consumer product that has potential to be thermally hot in a normal usage pattern.

Burns – Scalding cases include burns due to contact with hot liquids or steam. Some included liquids are candle wax, cooking grease or oil, and other water-based liquids. Included products comprise various cooking products that cook with liquids, steam cleaners, among other products.

Of the estimated 6,400 annual average ED-treated scalding burn injuries to seniors, 63.6 percent (4,100 injuries) of injuries included *only* product code 1934 (e.g., Hot water). Hot water is considered a consumer product in this report based on the assumption that, in almost all imagined scenarios, hot water must have been heated or contained by a consumer product in some way immediately before or during the scalding injury. A hot spring is one example of hot water that could potentially produce a scalding injury which does not need to involve a consumer product; however, a review of case narratives and incident locations indicates no presence of such cases in this report.

Conversely, product code 1933 (i.e., Foods [excluding hot water]) is an excluded product code but can be included when it is coded along with in-scope products. In 35.9 percent (2,300 injuries) of the estimated annual average ED-treated scalding burn injuries to seniors that are associated with product code 1933—which includes things such as grease, soup, and tea, among other non-hot water consumable products—at least hot water or a consumer product such as cookware not specified (i.e., product code 466). About 19.7 percent (1,300 injuries) of scalding burn injuries to seniors included both product codes 1933 and 1934, which means incidents involving food and hot water. Only 9.1 percent (600 injuries) of scalding injuries involve product code 611 (i.e., Bathtubs or showers [including fixtures or accessories; excluding enclosures, faucets, spigots, and towel racks]).

The **Burns – Other/Electric Shock** category is a catchall category which includes non-fire-related, non-thermal-related burn cases including chemical burns, electric burns, flash burns, radiation burns, ultraviolet burns or ultraviolet light (bright) flashes (e.g., burns from consumer products and not from sunburns), electric shock, and flash burns. For data consistency purposes, all cases of injuries as a result of chemical products exposure to the eye are in this category, which includes rashes around eyes, while chemical exposure to other body parts that cause rashes were placed in the Allergy/Dermatitis/Other Skin Issues. Chemical

burns to non-eye body parts were in the Burns – Other/Electric Shock category. Refer to Appendix B for further examples and explanations of methodology of categorizing cases associated with Burns – Other/Electric Shock incident scenarios.

Of the estimated 4,900 annual average ED-treated Burns – Other/Electric Shock injuries to seniors, 14.8 percent (700 injuries) included product code 956 (i.e., Bleaches [non-cosmetic]). Some other consumer products involved include acids, batteries, general purpose household cleaners and other chemicals, swimming pool chemicals, and welding equipment (flash burns).

The **Allergy/Dermatitis/Other Skin Issues** cases include cases of allergic reactions, rashes, and contact with consumer products to self-treat dermatitis and skin conditions and infections. Cases involving allergic reactions, rashes, or other skin issues due to contact with plants, or outdoor or environmental causes are excluded.

Dermatitis and skin issues (listed in bullet points in Appendix B) that arise from or are exacerbated because of simple contact to the skin by a consumer product, causing a cut or infraction of some sort to the skin surface, were placed in the Cut/Pierce or Struck Against/By category, depending on whether the nature of the contact was a cut or a collision.

If a case narrative indicated a dermatitis or skin issue was present, and then a consumer product was used to self-treat the issue (such as draining an abscess, blood blister, pimple, or other similar skin condition), or if a rash developed as a result of contact of a consumer product (such as a razor), then the case was placed in the Allergy/Dermatitis/Other Skin Issues category. The most common products involved in these types of issues are piercings, needle products, and grooming and manicure products, such as hair trimmers, nail clippers and razors. For instance, piercing and shaving cases that lead to a skin issue were placed in the Cut/Pierce category, collision injury cases leading to a skin issue were placed in the Struck Against/By category, and cases of attempted remedies using consumer products for existing skin issues were placed in the Allergy/Dermatitis/Other Skin Issues category. Refer to Appendix B for a list of dermatitis or skin issues classified in the dermatitis category for this report.

Of the estimated 6,000 annual average ED-treated Allergy/Dermatitis/Other Skin Issues injuries to seniors, 15.7 percent (900 injuries) included product code 983 (e.g., Soaps [excluding laundry soaps or detergents]), and 13.7 percent (800 injuries) included product code 949 (e.g., Laundry soaps or detergents). Some other consumer products involved include clothing accessories, day wear, razors, shavers, swimming pools, and manicure, pedicure, and make-up brushes and tools (excluding cosmetics).

Anoxia/Aspiration/Submersion cases include three similar diagnoses, all of which involve unintentional inhalation as a hazard. These hazards are grouped due to the similar hazard pattern of aspiration of either a gas, liquid, or solid. Anoxia cases involve loss of oxygen to the brain and include inhalation of gases other than chemical fumes, such as carbon monoxide. Chemical fume inhalation cases were placed in the Poisoning category. Aspiration cases involve foreign body obstruction or inhalation of solid or liquid objects to the throat. Submersion cases involve inhalation of too much water.

Of the 3,300 estimated annual average ED-treated senior injuries in this category 58.3 percent (1,900 injuries) are due to anoxia (i.e., diag1 = 65), which includes carbon monoxide

poisoning, and 19.2 percent are due to submersion injuries (i.e., diag1 = 69). The remaining cases in this category include aspirating objects such as rings, toothpicks, or pieces of products which incidentally broke and were accidentally inhaled like grilling brush bristles, plastic cutlery, or beverage tabs or caps.

Ingestion cases involve swallowing or attempting to swallow solid consumer products; cases of solid products stuck in the larynx were placed in the anoxia category.

There are an estimated annual average 2,000 ED-treated ingestion injuries to seniors, of which some common products ingested include aluminum drinking can tabs, batteries, bolts, and desk supplies like pencils, nails, screws, and tacks. Many different non-liquid (solid) consumer products either ingested or attempted to be ingested make up the rest of the cases in this category.

Poisoning cases include swallowing liquid consumer products or inhaling chemical consumer products. Cases where mace, pepper spray, or similar protection devices were ingested, inhaled, or exposed with *no* mention of the eye or face either in case narratives or as the primary body part affected (i.e., bdpt ≠ 76 [Face] or 77 [Eyeball]) were placed in the poisoning category, but cases of being sprayed in the eye were placed in the Burns – Other/Electric Shock category on account of classifying chemical eye exposure cases as chemical burns, since most of these cases are NEISS coded as chemical burns.

Of the estimated 4,600 annual average ED-treated poisoning injuries to seniors, 21.3 percent (1,000 injuries) included product code 956 (i.e., Bleaches [non-cosmetic]), 16.5 percent (800 injuries) included product code 954 (i.e., General purpose household cleaners [excluding abrasives, ammonia, pine oil and toilet bowl products]), and additional cases involved other chemicals.

Most cases in the above categories clearly fit into respective hazard categories, eliminating the need to implement any additional categorization methods. Conversely, such methods were implemented to determine which category to place certain groups of similar cases associated with the Allergy/Dermatitis/Other Skin Issues and Burns – Other/Electric Shock categories, as well as some cases that are also associated with non-riding products mechanical hazard categories. Appendix B provides examples and explanations of such categorization decisions.

Riding Consumer Products Tier

Riding Consumer Products tier injuries include the following categories: Animal Riding, Bicycles, Golf Carts, Micromobility, Off Highway Vehicles (i.e., OHVs), and Other Riding Consumer Products, which includes all other riding consumer products not incorporated into the other riding consumer product categories.

In order to summarize the hazards of riding consumer products similarly to the way Non-Riding Product Mechanical hazard tier categories were analyzed by product subcatagories in Table 14 through Table 24, hazard pattern determinations based on case narrative would have to be made for most Riding Consumer Products cases since in over half of the Riding Consumer Products cases the Cause variable is coded as “pedal cycle” (i.e., Cause = 3) or “other transport” (i.e., Cause = 5) instead of being coded with hazard categories such as Falls

(i.e., Cause = 6), Overexertion (i.e., Cause = 9), or Struck Against/By (i.e., Cause = 7). Given the difficulty in distinguishing cases involving a collision from cases involving a fall from a riding consumer product, hazard analysis for riding consumer products is not provided in this report. For example, the following keywords are difficult to distinguish between a collision or a fall for riding products (e.g., bicycle, golf cart, or OHV): “crash”, “fell into”, “thrown”, and “wipe out”, or variations of these.

Animal Riding cases involve injuries while riding, mounting, or dismounting a horse, bull, donkey, or mule. Almost all cases involved a horse, some cases involved a bull, and a handful of cases involved a donkey or a mule. In these cases consumer products such as saddles, reins, and stirrups are expressly or impliedly involved.

Cases involving bull- or horse-related consumer products and cases involving animals while not riding the animal are included but placed into a Non-Riding Product Mechanical hazard category rather than the Animal Riding category. Cases coded product code 1239 (i.e., Horseback riding [activity, apparel, or equipment]), are included if the case narrative indicates a fall off an animal but excluded for non-fall cases in which no consumer product is mentioned or alluded to in the case narrative. Most of the excluded cases involved direct animal contact as the primary reason for being ED-treated.

Of the estimated 4,300 annual average ED-treated injuries to seniors involving animal riding, 99.6 percent (4,300 injuries) involved a horse, of which, in almost every case, the patient was riding the horse at the moment of injury, as opposed to injuries while mounting or dismounting the animal. Bulls accounted for all but a handful of the rest of these animal riding injuries, whereas donkeys and mules accounted for the remainder.

Bicycle cases mostly involve two-wheeled, non-powered bicycles but also include any other non-powered unicycle or tricycle. Incidents can include falls *while using a bicycle*,[63] collisions with objects (including motor vehicles), overexertion while using a bicycle, lifting a bicycle, or being hit by a bicycle while using a non-riding consumer product, such as when exercising (e.g., product code 3299).

There is an estimated annual average 51,700 ED-treated injuries to seniors involving bicycle products, of which 18 percent (9,100 injuries) also involved a motor vehicle.

Golf Cart cases involve injuries associated with golf carts, including driving or riding in a golf cart during a collision, tipping over, falling out of the golf cart, getting hit by a golf cart, contact with or falling while leaning on a golf cart, among others.

Micromobility cases involve injuries associated with electric-powered bikes (i.e., e-bikes), hoverboards, scooters (i.e., e-scooters), powered skateboards, and powered unicycles. Powered scooters excluded from this report are mopeds, mobility scooters, and electric shopping carts.

Of the estimated 7,200 annual average ED-treated injuries to seniors involving micromobility products, 48.6 percent (3,500 injuries) include product code 5022 (Scooters, powered), and 47.5 percent (3,400 injuries) include product code 3215 (i.e., Mopeds or power-assisted cycles). Note that all mopeds are excluded in this report; therefore, cases coded with product code 3215 should mostly comprise motorized or power-assisted cycles or e-bikes. The

[63] While using a bicycle can include while walking with a bicycle, or lifting a bicycle to mount, store, or place on a vehicle or rack.

remaining cases in this category are mostly hoverboards and powered skateboards. There is an estimated annual average 7,200 ED-treated injuries to seniors involving micromobility products, of which 9 percent (1,300 injuries) also involved a motor vehicle.

Off Highway Vehicles (OHVs) comprise all-terrain vehicles (i.e., ATVs) and utility vehicles (i.e., UTVs, including ROVs [recreational off-road vehicles]).

Of the estimated 4,700 annual average ED-treated injuries to seniors involving OHVs, 52.5 percent (2,500 injuries) include product code 3286 (i.e., All-terrain vehicles [four wheels, excluding dune buggies; exclusively off-road]), 29.9 percent (1,400 injuries) include product code 3287 (All-terrain vehicles [number of wheels not specified; excluding dune buggies; exclusively off-road]), and 16.6 percent (800 injuries) include product code 5044 (i.e., Utility vehicles, such as UTVs or ROVs).

The **Other Riding Products** category is a catchall category for riding consumer product cases that do not fit into any of the other riding product subcategories, of which the following are some products included in this category: dirt bikes, dune buggies or beach buggies, go-carts, motor bikes, motorized vehicles not elsewhere classified (three or more wheels), pedal-powered adult vehicles (three or more wheels), power-assisted cycles not elsewhere classified (excluding off-road vehicles, minibikes, and licensed vehicles), power-assisted cycles not elsewhere classified (excluding off-road vehicles, minibikes, and licensed vehicles), powered minibikes, riding power lawn mowers, scooters that are unspecified (not known if powered or not), skateboards (unpowered or unspecified), snow mobiles, tractors (garden, other, or not specified), powered off-road vehicles with two wheels (including dirt bikes and trail bikes; excluding mopeds and minibikes), unicycles (unpowered or unspecified), and unpowered scooters.

Of the estimated 15,000 annual average ED-treated Other Riding (consumer) Products injuries to seniors, 42.3 percent (6,300 injuries) included product code 1422 (i.e., Riding power lawn mowers), 24.1 percent (3,600 injuries) included product code 1062 (i.e., Tractors, other or not specified), and 18.5 percent (2,800 injuries) included product code 5024 (i.e., Scooters, unspecified (not known if powered or not)).

Cases involving mopeds and powered shopping carts are excluded, while cases involving mobility scooters and wheelchairs (as well as canes, crutches, and walkers) are included in Non-Riding Product Mechanical categories *if* other consumer products are involved in incident scenarios, such as falls to floors or collisions with consumer products such as doors, floors, or walls.

Motor Vehicle-Related Cases

All cases where a riding consumer product is being used and a motor vehicle (e.g., cars, trucks, buses, motorcycles, etc.) is involved are included, while most cases where a non-riding consumer product is being used and a motor vehicle is involved are excluded. Cases involving a collision with a motor vehicle while using a non-riding consumer product that are *included* are activities such as checking the mail, taking out the trash, or while loading products into a motor vehicle when struck by a motor vehicle. More detailed examples of cases involving motor vehicles which are included and excluded can be found in Appendix A. As seen in Table 37 in Appendix A, there are 1,977 cases that have been excluded because a motor vehicle,

accompanying accessory, or motor liquid used in concert with a motor vehicle was the primary reason for the ED-visit.

While there are some cases included involving motorcycles (i.e., product code 1910), most riding consumer product cases included involve motor vehicles (i.e., product code 1901); and most such cases involved collisions or crashing while attempting to avoid a motor vehicle. Table 42 shows the estimated annual average number of ED-treated injuries involving a riding consumer product and a motor vehicle for each age group, and the last row shows the estimated number of ED-treated injuries involving Non-Riding Product Mechanical Struck Against/By injuries involving a motor vehicle.

Among all ED-treated injuries occurring while using Riding Consumer Products, 19 percent of adult injuries (80,100 annual injuries) and 13 percent of senior injuries (11,500 annual injuries) involved a motor vehicle. The percent of riding product injuries involving a motor vehicle is higher among adults (25-64) than seniors (65 and older) in the Bicycles (26% of adults vs. 18% seniors), Micromobility (27% adults vs. 13% seniors), and Other Riding Products (11% adults vs. 4% seniors) categories but lower in the OHVs (4% adults vs. 9% seniors) category. The percentage of the Struck Against/By subcategory shows that two percent involved a motor vehicle for both the adults and seniors age groups.

Table 42: Estimated Annual Average Number of ED-Treated Injuries Involving a Motor Vehicle by Riding Consumer Products Categories and the Non-Riding Product Mechanical Struck Against/By Category and by Age Group, 2022-2023 (Percent of Category Total Estimate for each Age Group)[64]

Consumer Product/Hazard	Ages 25 to 64 Years		Ages 65 Years and Older	
	Does Involve a Motor Vehicle	Does Not Involve a Motor Vehicle	Does Involve a Motor Vehicle	Does Not Involve a Motor Vehicle
All Riding Consumer Products	**80,100 (19%)**	**342,500 (81%)**	**11,500 (13%)**	**78,800 (87%)**
Animal Riding	– (1%)	20,400 (99%)	– (2%)	4,200 (98%)
Bicycles	50,200 (26%)	142,100 (74%)	– (18%)	42,600 (82%)
Golf Carts	– (4%)	8,300 (96%)	– (4%)	– (96%)
Micromobility	16,900 (27%)	44,800 (73%)	900 (13%)	6,300 (87%)
OHVs	1,800 (4%)	42,700 (96%)	– (9%)	4,300 (91%)
Other Riding Products	10,800 (11%)	84,300 (89%)	600 (4%)	14,400 (96%)
Non-Riding Products: Struck Against/By	11,800 (2%)	633,800 (98%)	2,800 (2%)	177,600 (98%)

Source: U.S. Consumer Product Safety Commission: NEISS. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Estimates are rounded to the nearest hundred and therefore may not add up to the total.

[64] Table 42 contains all included cases with at least one of these motor vehicle products coded: 1901 (i.e., motor vehicles) or 1910 (i.e., motorcycles). Motorcycles make up less than two percent of such cases.

Non-Riding Product Mechanical Hazard Tier

Non-Riding Product Mechanical hazard tier injuries include the following categories: Cut/Pierce, Falls, Foreign Body, Overexertion, Struck Against/By, and Other/Unknown—which includes all other non-riding consumer products not incorporated into the other non-riding consumer product categories.

In the Non-Riding Product Mechanical hazard tier, hazard categories in which cases were placed depend on the consumer product involved in the incident scenario. Often, cases were placed into categories and subcategories simultaneously based on the case narrative, where the product and hazard each have sway as to which category and subcategory best matches a case. For instance, cases of syncope or shortness of breath, with no other details about the incident scenario, were placed into the Overexertion category when the subcategory product was one of the physically active-based product codes listed in Table 40 in Appendix B, such as exercise- or sports-related products. In contrast, cases of syncope or shortness of breath while sitting upright in a bed or chair, with no other details about the incident scenario, were placed into the Other/Unknown category and Other/Unknown subcategory, which are catchalls for cases that involve consumer products but do not fit into any other categories.

Hierarchies of some product subcategories taking precedence over others have been implemented such that when two or three products from different subcategories are coded for a single case, the case was placed in the subcategory with precedence over the others. For instance, for Falls category cases, all products and their respective subcategories have hierarchical precedence over the product subcategory Floor (no other products), such that when only two products are coded in a Falls category case, of which one of the products is a floor (i.e., product code 1807), then the case was placed in the subcategory corresponding to the non-floor product. For example, a case involving tripping over a table with a fall to the floor (i.e., the products involved are coded as “floor” and “table”) would be placed in the Falls category and the Furniture (various) subcategory which comprises tables.

For products that can lead to injuries which could be construed to be appropriately placed into two or more hazard categories (e.g., those that can both cut [Cut/Pierce category] or embed into the skin [Foreign Body category]), staff implemented the following categorization decision criteria based on how similar NEISS cases are coded in the Cause variable. Since most cases involving fishing hooks, nails, nail gun nails, needles, and similar products which often puncture the skin are coded as cut injuries (Cause = 8), in order to keep similar cases grouped together in the same hazard category, these cases were categorized as Cut/Pierce injuries regardless of whether the case narrative mentions an embedded product and is coded as a foreign body injury (i.e., Cause = 15). On the contrary, since most cases involving body piercings that became embedded in the skin are coded as foreign body injuries (i.e., Cause = 15), similar cases were placed in the Foreign Body category, regardless of whether the case is coded as a cut injury (i.e., Cause = 8).

All case narratives which are *not* coded as foreign body injuries in the Cause variable (i.e. Cause ≠ 15) were read if they contained “fb” (e.g., foreign body), “foreign”, “sliver”, or “splinter” to determine if these cases should be placed in the Foreign Body category. For example, cases of small solid particles larger than saw dust getting lodged or stuck in the eye were placed in the Foreign Body category, which includes tiny chunks of wood from cutting wood or trees, pieces of metal flying while welding, or glue getting stuck in the eye.

Cases of sawdust contacting the eye are coded as struck against/by and foreign body injuries in the Cause variable (i.e., Cause = 7 and 15, respectively) about the same number of times. Therefore, case narratives involving sawdust contacting the eye that do not mention a foreign body presence were placed in the Struck Against/By category since most of these injuries resulted in corneal abrasions. Conversely, case narratives involving sawdust contacting the eye that specifically mention foreign body presence were placed in the Foreign Body category. Cases of foreign body sensation with no mention of foreign body presence were placed in the Struck Against/By category. In addition, case narratives involving sawdust contacting the eye mentioning conjunctivitis were placed in the Allergy/Dermatitis/Other Skin Issues category.

Most BB gun injuries were caused by BBs being embedded in the skin and were placed in the Foreign Body category; some cases involve BBs that do not break the skin and are therefore placed in the Struck Against/By category.

Cases coded as foreign body injuries (i.e., Cause = 15) with narratives containing “ingest” or “swallo” were read to determine if cases should be placed in the Ingestion category. Ingestion category cases include ingestion of solid mass or solid pieces of consumer products.

General definitions and descriptions for each Non-Riding Product Mechanical hazard tier category product subcategory are explained below, and more elaborate descriptions and methodological decisions used to place cases into categories and subcategories in this tier are discussed in Appendix B.

Cut/Pierce cases include amputation, cut, impale, laceration, pierce, puncture, and severing injuries caused by consumer products. Generally, laceration cases caused by being struck by or colliding with blunt objects were placed in the Struck Against/By category. Most cases involving manicure and pedicure products were placed in the Cut/Pierce category, including problems following cutting nails too short, developing ingrown nails, and various skin infections following open skin injuries from small cuts to the skin, such as infections resulting from cuts while shaving using a razor.

Table 43 shows annual average estimates, and percentages of these estimates, for each age group associated with the most common products resulting in Cut/Pierce injuries. Among cases in the Other subcategory, where two or more product subcategories are coded for a single case, narratives were read to determine which of the two product subcategories to place these cases, based on which product contributed more to the most serious injury. Note that the subcategories in the table not in bold are all part of the Cut/Pierce category’s Other subcategory.

Of the estimated 129,600 annual average ED-treated Cut/Pierce injuries to seniors, 24 percent (31,200 injuries) involve a knife, 16 percent involve a saw (21,100 injuries), and the remaining 60 percent (77,300 injuries) of cut or pierce cases do not include a knife or a saw. All cut or pierce injury cases not involving a knife or a saw were placed in the Other subcategory for Cut/Pierce category injuries. Table 43 shows some of the products which make up the largest proportions of the Cut/Pierce category Other subcategory, so that when observing Table 14 through Table 24, Table 43 can be referenced to understand what kinds of products make up the Other subcategory.

Comparing seniors to adults among all Cut/Pierce injuries, there is a higher percent of cut injuries to adults involving knives compared to the percent of knife cut injuries to seniors (33

percent of adult cut injuries involve a knife vs. 24 percent of senior cut injuries), and a higher percent of cut injuries to seniors involve saws compared to the percent of saw cut injuries to adults (9 percent of adult cut injuries involve a saw vs. 16 percent of senior cut injuries involve a saw).

Nails, Screws, Tacks, and Bolts (5,600 annual injuries) and Fishing products (5,200 annual injuries) account for the most injuries in the Cut/Pierce category's Other subcategory; each of these product groups make up four percent of all senior Cut/Pierce injuries. Accounting for three percent each out of all senior Cut/Pierce injuries are Tableware (4,200 annual injuries), Slicers and Choppers (3,900 annual injuries), Razors and Shavers (3,600 annual injuries), and Manicure Tools (3,300 annual injuries). The metal containers category consists of various metal cans, such as canned food goods or canned beverages.

Table 43: Annual Average Estimated Number of ED-Treated Injuries for Age Groups by Cut/Pierce Product, 2022-2023 (Percent of Cut/Pierce Category Total Estimate for each Age Group)

Cut Hazard Products (Product Code)	Ages 25 to 64 Years	Ages 65 Years and Older	Ages 65 to 74 Years	Ages 75 to 84 Years	Ages 85 Years and Older
All Cut Hazard Injuries	**595,100 (100%)**	**129,600 (100%)**	**83,300 (100%)**	**37,400 (100%)**	**8,900 (100%)**
Knives	**198,100 (33%)**	**31,200 (24%)**	**21,000 (25%)**	**8,800 (24%)**	**1,400 (16%)**
Saws	**55,000 (9%)**	**21,100 (16%)**	**13,500 (16%)**	**6,700 (18%)**	**1,000 (11%)**
Other	**341,900 (57%)**	**77,300 (60%)**	**48,900 (59%)**	**21,900 (59%)**	**6,500 (73%)**
Fishing (3223)[65]	18,700 (3%)	5,200 (4%)	3,600 (4%)	1,300 (4%)	– (3%)
Manicure tools (1659)	5,400 (1%)	3,300 (3%)	1,700 (2%)	1,300 (3%)	– (5%)
Metal containers (excl. aerosols, trash, and gasoline cans) and containers, not specified (1112 and 1141)	15,200 (3%)	3,000 (2%)	2,000 (2%)	900 (2%)	– (1%)
Nails, Screws, Tacks, and Bolts (1819)	34,200 (6%)	5,600 (4%)	4,100 (5%)	1,200 (3%)	– (3%)
Razors, and Shavers (1661, 1662, 1664, 1667)	20,200 (3%)	3,600 (3%)	2,500 (3%)	900 (2%)	– (3%)
Slicers and Choppers (469)	14,200 (2%)	3,900 (3%)	2,300 (3%)	1,500 (4%)	– (1%)
Tableware, drinking glasses, cups, mugs, and accessories (474 and 478)	30,900 (5%)	4,200 (3%)	2,700 (3%)	1,100 (3%)	– (5%)
Windows and window glass, other than storm windows (1894)	15,500 (3%)	1,000 (1%)	– (1%)	– (1%)	– (3%)
All Other Products	187,700 (32%)	47,500 (37%)	29,600 (35%)	13,500 (36%)	4,400 (50%)

Source: U.S. Consumer Product Safety Commission: NEISS. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Estimates are rounded to the nearest hundred and therefore may not add up to the total. Percentages may not sum to 100 due to rounding.

[65] Since almost all cases of fishhooks being embedded in skin are NEISS coded as cut injuries (i.e., Cause = 8), the cases NEISS coded as foreign body (i.e., Cause = 15) have been placed in the Cut/Pierce category to be consistent with these types of injuries.

Falls cases include falls *not* involved with riding consumer products, where a fall is indicated in either the Cause variable (i.e., Cause = 6) or in the case narrative. For each case in this tier where Cause was not coded a fall (i.e., Cause ≠ 6), narratives containing "fall" or "fell" were read to determine if a case should be placed in the Falls category. Generally, cases of trips without indication of a fall occurring were placed in the Overexertion category. Most cases of fall injuries, before or after a collision with an object or person, were placed in the Falls category, whereas cases of falls resulting from collisions where the injury appears to be caused by the collision were placed in the Struck Against/By category.

Fall injuries are all similar in the way a person makes contact with consumer products, including floors (i.e., product code 1807), usually in a disoriented, unexpected way. Falls while intoxicated, while intaking large amounts of drugs to the point of an overdose, during syncope or passing out, or just about any other circumstance where a consumer product is involved are included. Excluded cases encompass patients found, with no mention of a fall in case narratives, in poor health or passed out due to excessive alcohol or drug intake with no indication of consumer product involvement, and cases only involving consumer products generally outside of CPSC jurisdiction, such as while exiting a boat, plane, or train.

The 25 Falls category subcategories in Table 14 through Table 24 account for 95 percent (2,453,500 annual average ED-treated injuries) of the estimated Falls injuries to seniors, leaving 5 percent (122,900 annual injuries) of senior Falls injuries associated with products not belonging to those Falls subcategories. In many of these cases, products may be objects tripped over, fallen into, or being lifted or carried when a fall occurred.

Foreign Body cases include consumer products getting stuck or embedded in orifices, including BBs from BB guns and piercings (e.g., anus, ear, eye, lip, nose, stomach, tongue, and other skin locations); consumer products, such as rings or rubber bands, getting stuck around appendages of the body (e.g., fingers, penises, toes, jewelry, and piercings); or products or pieces of broken products getting lodged or embedded in skin, such as glass and other small sharp objects. Cases with narratives describing lacerations or partial amputations caused by sharp objects that also mention foreign body presence were generally placed in the Cut/Pierce category. Small particles that get stuck in the eye, such as chunks of debris and glue, were placed in the Foreign Body category, while cases of dust particles contacting the eye with no mention of a solid piece getting stuck in the eye were placed in the Struck Against/By category.

Table 44 shows annual average estimates, and percentages of these estimates, for each age group associated with the most common products resulting in Foreign Body injuries. Among cases in the Other subcategory, where two or more product subcategories were coded for a single case, narratives were read to determine which of the two product subcategories to place these cases. Note that all subcategories in the table are part of the Foreign Body category in Table 3 through Table 13 and also in the Foreign Body subcategory in Table 14 through Table 24.

Of the estimated 10,800 annual average ED-treated Foreign Body injuries to seniors, 25 percent (2,700 injuries) involve rings getting stuck on fingers, and an additional six percent involve incidents associated with jewelry other than rings getting stuck on fingers. Other Jewelry cases involve earrings or other piercings getting embedded or stuck in skin, and other cases involve toe rings, and penis rings, as well as jewelry inserted into lower body orifices. Nine percent (1,000 injuries) of estimated annual senior Foreign Body injuries involve grinders or welding equipment, where in most of these cases small particles or bodies are thrown from the grinder or welding equipment into the eye. The proportion of Foreign Body injuries that involve

rings getting stuck on fingers is higher for all seniors (25 percent) than it was for adults (16 percent). Fifty-four percent (5,900 injuries) of senior foreign body injuries involve products not listed in Table 44, which include a wide array of products, such as BBs from BB guns, rubber bands, and punctures, slivers, and splinters from all sorts of products.

Table 44: Annual Average Estimated Number of ED-Treated Injuries for Age Groups by Foreign Body Product, 2022-2023 (Percent of Foreign Body Category Total Estimate for each Age Group)

Foreign Body Hazard Products (Product Code)	Ages 25 to 64 Years	Ages 65 Years and Older	Ages 65 to 74 Years	Ages 75 to 84 Years	Ages 85 Years and Older
All Foreign Body Hazard Injuries	**68,000 (100%)**	**10,800 (100%)**	**7,100 (100%)**	**2,600 (100%)**	**1,100 (100%)**
Manual, Power, and workshop grinders, buffers, or polishers, or not specified and welding equipment (0896, 0897, 0898, and 0899)	9,400 (14%)	1,000 (9%)	800 (11%)	– (4%)	– (3%)
Massage devices or vibrators (excl. shower attachments) (1610)	4,200 (6%)	– (4%)	– (5%)	– (2%)	– (0%)
Other Jewelry (excl. watches and rings stuck on fingers) (1616)	7,600 (11%)	– (5%)	– (6%)	– (6%)	– (9%)
Rings Stuck on Fingers[66]	11,200 (16%)	2,700 (25%)	1,300 (19%)	800 (29%)	– (41%)
Stereo or hi-fi components or accessories (excl. self-contained units) (0546)	4,700 (7%)	– (4%)	– (4%)	– (4%)	– (0%)
All Other Products	31,000 (46%)	5,900 (54%)	3,900 (55%)	1,400 (54%)	– (46%)

Source: U.S. Consumer Product Safety Commission: NEISS. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Estimates are rounded to the nearest hundred and therefore may not add up to the total. Percentages may not sum to 100 due to rounding.

The **Overexertion** category is defined broadly as injuries caused or exacerbated by improper technique, prolonged activity, repetitive movement, sudden movement, or extreme temperature, and are usually caused by bending, pulling, pushing, reaching, throwing, or twisting movements. Overexertion category injuries also include cases of respiratory issues such as shortness of breath, cardiovascular issues which cause weakness or loss of consciousness due to rapid heart rate or cardiac arrest, muscular or skeletal pain, injuries as a result of sudden or abrupt forceful movements such as rolling an ankle, prolonged activity leading to any of the above injuries, overexertion injuries exacerbated by extreme temperatures and conditions such as exposure to excessive heat or humidity while engaging in an outdoor activity, and most cases where case narratives vaguely describe how an injury occurred. For cases *not* coded as one of the other categories in the Cause variable (e.g., Cause = 1-5; 10-14; 19; 88; and 99), if a narrative is vague and describes pain or an injury to a body part other than to body parts that are not known to physically overexert (e.g., the ear, nose or mouth), then the case was placed in the Overexertion category. Meanwhile, there can be overexertion injuries to the eyes, usually due to looking at a computer screen or television too closely or for a long period of time.

[66] The Rings Stuck on Fingers category is a subset of product code 1616, where every narrative includes descriptions of injuries stemming from rings getting stuck on fingers. The Other Jewelry category comprises of all other jewelry cases besides rings stuck on fingers.

Categorizing cases as Overexertion injuries depends on the product or activity associated with the injury. For activity-based product/hazard categories or subcategories (e.g., exercising, moving boxes, playing sports, or going up and down stairs), respiratory and cardiovascular events such as cardiac arrest, passing out, shortness of breath, stroke, and syncope-type injuries were placed in the Overexertion category, while cases involving these same respiratory or cardiovascular events involving sedentary activities associated with consumer products (e.g., lounging in beds, chairs, and sofas, with no details in case narratives describing muscular or skeletal pain or injury), were placed in the Other/Unknown category. Similar case placement applies for the following symptoms: dizziness, heat exhaustion, lightheadedness, palpitations, vertigo, or other internal body weaknesses or events with no fall or collision with any consumer products, and where Cause is *not* coded 20 (i.e., Natural/environmental).

For cases coded as overexertion injuries in the Cause variable (i.e., Cause = 9), there are cases involving falls, but most of these case narratives describe overexertion injuries such as rolling or twisting ankles, other twisting injuries, or injuries caused as a result of slipping or tripping and catching oneself before ultimately falling or not falling at all. Cases like these remain in the Overexertion category.

Most cases of body sprains and strains (e.g., diag1 = 64) are due to overexertion injuries. Contact injuries to ankles, feet, and toes attributed to socks and footwear (usually due to poor fit [rubbing or too tight] or repetitive contact between the foot and a sock or footwear product, or additional complications such as from wearing wet socks or footwear), were placed in the Struck Against/By category and Other subcategory (since there is no subcategory for either Clothing or Footwear products). Cases of slips and trips with no indication of a fall, except for abrasions or collision-type injuries, were placed in the Overexertion category, because these slips or trips without falling tend to require the body to have some kind of quick reaction balancing motion to keep the body from falling, which often causes one of the various types of overexertion injuries described above. Cases in the Floor category in Table 45 include these kinds of Overexertion cases where no other consumer product other than the floor (i.e., product code 1807) is coded.

Overexertion injuries also include incidents involving animals on pet leashes, namely dogs, jerking the leash and causing sudden pulls on various body parts (e.g., backs, fingers, hands, shoulders, or wrists), with no indication of a fall. If a fall occurs during this struggle, then the case was placed in the Falls category. If an individual is jerked such that the leash causes a friction burn, if there is contact of the leash with a body part such as wrapping the leash around legs causing contact injuries with no jerking of a body part, or if a collision with a consumer product such as a wall occurs while being jerked by the leash, then the case was placed in the Struck Against/By category. If a laceration occurs during the tussle, then the case was placed in the Cut/Pierce category.

Table 45 shows annual average estimates, and percentages of the estimates, for each age group associated with the most common products resulting in Overexertion injuries. Among cases in the Other subcategory, where two or more product subcategories are coded for a single case, narratives were read to determine which of the two product subcategories to place these cases. Note that the subcategories in the table not in bold are all part of the Overexertion category's Other subcategory.

The proportion of all Overexertion injuries involving either Beds or Chairs/Sofas to seniors ages 85 years and older are higher when compared to the younger senior age groups,

with 27 percent of overexertion injuries to seniors ages 85 years and older involving beds, chairs, or sofas, compared to 19 percent for seniors ages 75 to 84 years, and 13 percent for seniors ages 65 to 74 years.[67]

The proportion of senior Overexertion injuries is higher than the proportion of adult Overexertion injuries involving Beds (6 percent for adults vs. 9 percent for seniors), Chairs/Sofas (4 percent for adults vs. 7 percent for seniors), and Outdoor Work Lawn Tools (4 percent for adults vs. 8 percent for seniors).

The proportions of all Overexertion injuries are about the same for seniors and adults for the Exercise Activity subcategory (15 percent for adults vs. 14 percent for seniors), but the proportion of all Overexertion injuries to adults is much higher in the Recreation/Sports category compared to the proportion of senior overexertion injuries (24 percent for adults vs. 13 percent for seniors). The proportions are about the same within the adult and senior age groups for overexertion injuries involving Ramps/Stairs/Steps (10 percent for adults vs. 9 percent for seniors).

Of the estimated 257,600 annual average ED-treated Overexertion injuries to seniors, three percent (8,800 injuries) involve Furniture (various), two percent (5,300 injuries) involve Toilets, and two percent (4,800 injuries) involve a Bathtubs/Showers. The furniture overexertion injuries are mostly due to lifting or moving furniture, the toilet overexertion injuries mostly occur when attempting to get on or off the toilet, and the bathtub or shower overexertion injuries mostly occur while getting in or out of the bathtub or shower or while bending or squatting while bathing.

There is an estimated annual average 3,300 ED-treated injuries to seniors involving overexertion injuries while using a broom, mop, or vacuum, and an additional 8,700 annual injuries to seniors due to Falls while using a broom, mop, or vacuum. Brooms, mops, and vacuums form a subcategory in the Falls category, where detailed analysis is given in Table 3 through Table 13.

Table 45: Annual Average Estimated Number of ED-Treated Injuries for Age Groups by Overexertion Product, 2022-2023 (Percent of Overexertion Category Total Estimate for each Age Group)

Overexertion Hazard Products (Product Code)	Ages 25 to 64 Years	Ages 65 Years and Older	Ages 65 to 74 Years	Ages 75 to 84 Years	Ages 85 Years and Older
All Overexertion Hazard Injuries	**761,600 (100%)**	**257,600 (100%)**	**143,700 (100%)**	**86,500 (100%)**	**27,400 (100%)**
Beds	**43,900 (6%)**	**23,600 (9%)**	**11,000 (8%)**	**8,700 (10%)**	**4,000 (15%)**
Boxes	**34,800 (5%)**	**11,100 (4%)**	**6,300 (4%)**	**3,800 (4%)**	**1,100 (4%)**
Chairs/Sofas	**28,800 (4%)**	**19,200 (7%)**	**8,000 (6%)**	**7,700 (9%)**	**3,500 (13%)**
Clothing/Footwear	**31,200 (4%)**	**11,900 (5%)**	**6,400 (4%)**	**3,600 (4%)**	**1,900 (7%)**
Exercise Activity	**112,500 (15%)**	**36,700 (14%)**	**21,100 (15%)**	**12,100 (14%)**	**3,600 (13%)**
Outdoor Work/ Lawn Tools	**31,200 (4%)**	**19,700 (8%)**	**12,300 (9%)**	**6,100 (7%)**	**1,300 (5%)**
Ramps/Stairs/Steps	**79,500 (10%)**	**21,900 (9%)**	**13,400 (9%)**	**6,800 (8%)**	**1,700 (6%)**
Recreation/Sports	**182,200 (24%)**	**34,000 (13%)**	**20,400 (14%)**	**– (14%)**	**1,900 (7%)**

[67] When using unrounded estimates, 27 percent of Overexertion injuries to seniors ages 85 years and older and 13 percent of Overexertion injuries to seniors ages 65 to 74 years are primarily due to Beds or Chairs/Sofas, which are different percents than by summing the respective rounded percents appearing in Table 44.

Other	217,400 (29%)	79,300 (31%)	44,900 (31%)	26,100 (30%)	8,300 (30%)
Bags, not elsewhere classified (1144)	10,500 (1%)	4,400 (2%)	2,600 (2%)	1,400 (2%)	– (1%)
Bathtubs/Showers	13,600 (2%)	4,800 (2%)	2,500 (2%)	1,500 (2%)	800 (3%)
Brooms/Mops/Vacuums	7,000 (1%)	3,300 (1%)	1,900 (1%)	1,200 (1%)	– (1%)
Floor (1807)	12,900 (2%)	4,300 (2%)	2,400 (2%)	1,300 (2%)	– (2%)
Furniture (various)	29,300 (4%)	8,800 (3%)	4,600 (3%)	3,200 (4%)	1,000 (4%)
Luggage (excl. foot lockers) (1623)	3,600 (<1%)	2,600 (1%)	1,700 (1%)	– (1%)	– (<1%)
Pet Supplies (excl. foods and medicines) (1715)	11,500 (2%)	3,500 (1%)	2,200 (2%)	1,100 (1%)	– (<1%)
Toilets (649)	4,800 (1%)	5,300 (2%)	2,200 (2%)	2,100 (2%)	1,000 (4%)
Waste (0413)	4,100 (1%)	2,000 (1%)	1,100 (1%)	700 (1%)	– (1%)
All Other Products	120,100 (16%)	40,400 (16%)	23,600 (16%)	12,700 (15%)	4,100 (15%)

Source: U.S. Consumer Product Safety Commission: NEISS. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Estimates are rounded to the nearest hundred and therefore may not add up to the total.

Struck Against/By cases involve either striking a consumer product, being struck by a consumer product, or being struck while using a consumer product in a normal manner, with no mention of a fall or injuries from a fall described in the case narrative. Meanwhile, cases where a patient falls into or falls after making contact with a consumer product were placed in the Falls category, unless the case narrative indicates that the fall did not contribute to any additional injuries following a contact or collision; cases involving injuries predominantly from a contact or collision injury were placed in the Struck Against/By category.

Consumer products falling from furniture products were placed in the Furniture (various) subcategory. Similarly, if a Struck Against/By injury occurs while interacting with a house structure or if some product falls off a wall, such as a clock, mirror, or picture, before contacting the patient, then the case was placed in the House Structure Surfaces subcategory.

Some other examples of cases placed in the Struck Against/By category are fireworks explosions which do not include burn injuries, tight or ill-fitting clothing or footwear that causes pain or injury, being hit by a motor vehicle while using a consumer product in a normal manner (e.g., while checking the mail), and vaguely described blunt trauma injuries (e.g., bilateral subdural hematoma, closed head injuries, or corneal irritation with no mention of rash or dermis issues)—all of which have no fall mentioned in the case narrative. Struck Against/By injuries include collisions with others while doing a consumer product activity or while using a consumer product in a natural way, with the exception of foot and ankle injuries while stepping on another person, usually resulting in a rolled ankle; those cases were placed in the Overexertion category.

There are Struck Against/By cases where the narrative indicates a sock or footwear is the cause of the injury, such as wearing tight or irritating socks or footwear that cause blisters (e.g., footwear rubbing against the foot), injuries caused by wearing wet socks or shoes (e.g., trench foot, or fungal or bacterial infections), using new footwear, pulling a sock off and a toe nail or scab rips off, or a varicose vein is abrased or disturbed, wearing socks or footwear that do not fit properly and subsequently developing various issues, just about any pain from overuse, and sweat rashes due to having socks or footwear on too long. A number of cases specifically describe the footwear as heeled shoes. Other struck injuries include most cases of

stubbing toes and footwear caught on products other than rugs or carpet; if footwear is caught on a rug or carpet, then the case was placed in the Falls category's Carpet/Rug subcategory for cases of falls and placed in the Struck Against/By category's Other subcategory for non-fall cases.

Table 46 shows annual average estimates, and percentages of these estimates, for each age group associated with the most common products associated with Struck Against/By injuries. Among cases in the Other subcategory, where two or more product subcategories are coded for a single case, narratives were read to determine which of the two product subcategories to place these cases. Note that the subcategories in the table not in bold are all part of the Struck Against/By category's Other subcategory, since none of these subcategories has an annual estimate large enough to analyze in Table 14 through Table 24. Recall that, shown in Table 42, about two percent of adult and two percent of senior Struck Against/By injuries not involving riding products involved a motor vehicle.

The proportions of senior Struck Against/By injuries are as high or higher than the proportions of adult struck injuries in every product category listed in Table 46, except for the House Structure Surfaces and Recreation/Sports subcategories. Of all Struck Against/By injuries in each respective age group, 15 percent (98,900 annual injuries) of adult and 5 percent (9,000 annual injuries) of senior struck injuries are sports or recreation related. Among those 9,000 senior struck Recreation/Sports injuries, 1,900 involve either softball (product code 5034) or baseball (product code 5041).

Of the estimated 180,300 annual average ED-treated Struck Against/By injuries to seniors, three percent (4,900 annual injuries) include product code 1615 (i.e., Footwear), and one percent (2,600 annual injuries) include clothing product codes (e.g., product codes 1644, 1645, 1646, 1647, 1658, and 1677). Struck Against/By cases involving footwear generally comprise footwear making contact with the foot due to poor fit, overuse, or wet feet inside the footwear. Struck Against/By cases involving clothing are mostly cases of clothes getting caught on things, and some cases of tight fitting or restricting clothing. Twenty-six percent (47,800 injuries) of Struck Against/By injuries to seniors involve All Other Products.

Table 46: Annual Average Estimated Number of ED-Treated Injuries for Age Groups by Struck Against/By Product, 2022-2023 (Percent of Struck Against/By Category Total Estimate for each Age Group)

Struck Against/By Hazard Products (Product Code)	Ages 25 to 64 Years	Ages 65 Years and Older	Ages 65 to 74 Years	Ages 75 to 84 Years	Ages 85 Years and Older
All Struck Against/By Hazard Injuries	**645,600 (100%)**	**180,300 (100%)**	**98,100 (100%)**	**57,300 (100%)**	**24,900 (100%)**
Beds	**22,400 (3%)**	**9,400 (5%)**	**4,300 (4%)**	**3,000 (5%)**	**2,100 (8%)**
Chairs/Sofas	**15,200 (2%)**	**7,400 (4%)**	**3,000 (3%)**	**2,700 (5%)**	**1,700 (7%)**
Furniture (various)	**64,800 (10%)**	**26,500 (15%)**	**13,600 (14%)**	**8,700 (15%)**	**4,200 (17%)**
House Structure Surfaces	**140,300 (22%)**	**36,500 (20%)**	**18,300 (19%)**	**12,000 (21%)**	**6,200 (25%)**
Outdoor Work/ Lawn Tools	**19,200 (3%)**	**8,900 (5%)**	**5,700 (6%)**	**2,500 (4%)**	**700 (3%)**
Other	**383,600 (59%)**	**91,700 (51%)**	**53,200 (54%)**	**28,400 (49%)**	**10,100 (41%)**
Bathtubs/Showers	6,800 (1%)	3,400 (2%)	1,700 (2%)	900 (2%)	700 (3%)
Boxes	8,500 (1%)	2,800 (2%)	1,600 (2%)	900 (2%)	– (1%)

Clothing	7,800 (1%)	2,600 (1%)	1,200 (1%)	1,000 (2%)	– (2%)
Counters/Sinks	6,300 (1%)	3,000 (2%)	1,400 (1%)	900 (2%)	700 (3%)
Floor (1807)	5,300 (1%)	1,400 (1%)	600 (1%)	– (1%)	– (1%)
Footwear (1615)	20,300 (3%)	4,900 (3%)	3,000 (3%)	1,300 (2%)	– (2%)
Hammers (0827)	9,200 (1%)	1,400 (1%)	1,000 (1%)	– (1%)	– (<1%)
Kitchen	10,600 (2%)	4,400 (2%)	2,000 (2%)	1,500 (3%)	800 (3%)
Ladders	3,500 (1%)	1,600 (1%)	900 (1%)	– (1%)	– (1%)
Recreation/Sports	98,900 (15%)	9,000 (5%)	6,100 (6%)	2,600 (4%)	– (1%)
Ramps/Stairs/Steps	7,700 (1%)	3,100 (2%)	1,600 (2%)	1,000 (2%)	– (2%)
Toilets (649)	2,100 (<1%)	1,600 (1%)	– (1%)	600 (1%)	– (2%)
Tools, not specified (0893)	8,000 (1%)	3,100 (2%)	2,200 (2%)	800 (1%)	– (1%)
Waste (0413)	4,700 (1%)	1,600 (1%)	900 (1%)	– (1%)	– (1%)
All Other Products	183,900 (28%)	47,800 (26%)	28,500 (29%)	15,000 (26%)	4,300 (17%)

Source: U.S. Consumer Product Safety Commission: NEISS. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Estimates are rounded to the nearest hundred and therefore may not add up to the total. Percentages may not sum to 100 due to rounding.

Other/Unknown cases include all mecahnical hazard cases not involving riding consumer products that could not be placed into any of the Non-Riding Product Mechanical categories, and many of the cases in this category have narratives that are vague. Some examples of cases in this catchall category include seizures with little other information, swimmer's ear, bone and cartilage infections and internal bleeding, overly loud noise injuries to ears, weakness or syncope involving sedentary products, hot tubs or saunas, cases involving excessive alcohol or drug consumption, or health related issues confounding the role of a consumer product as the reason for the ED-visit. The same cases appearing in the Other/Unknown category in Table 3 through Table 13 are seen in Table 14 through Table 24.

NEISS ED-Treated Injury Non-Riding Product Mechanical Hazard Tier Subcategories (Categories)

The Non-Riding Product Mechanical hazard tier categories are further divided into product subcategories, which are covered in Table 14 through Table 24. This section describes categorization decisions, defines which types of products or product codes compose each product subcategory, and highlights the proportions of products or product codes which encompass each product subcategory—including an additional table expounding on Recreation/Sports products (Table 47). As some product subcategories are associated with multiple hazard categories, the relevant parent categories are parenthesized for clarification below, such as Balconies/Decks/Porches (Falls) or Beds (Falls; Overexertion; Struck Against/By).

Balconies/Decks/Porches (Falls): Balconies/Decks/Porches Falls injuries include falls while on or falling off balconies, decks, and porches. Note that most of these products have stairs, some have railings and elevated levels, and some are in outdoor environments which include environmental elements which can potentially cause floor surfaces to become slippery or obstructed. Also, note that flooring on decks may have protrusions sticking up or slanted surfaces, both of which could potentially contribute to a fall. There is only one product code which includes balconies, decks, and porches (i.e., product code 1817), so their individual shares of fall injuries cannot be ascertained.

Bathtubs/Showers (Falls): Bathtubs/Showers Falls injuries occur while in, while getting in, or while getting out of a bathtub or shower. Falls cases while in a bathroom and not mentioning the bathtub or shower, and not mentioning the toilet or sink, were placed in the Falls category and Other subcategory. Bathtubs/Showers products include bathtubs or shower structures, curtain rods, shower doors, bathtub or shower faucets, grab bars, senior bath seats, shower caddies, shower heads, and soap dishes or dispensers. Bathtubs/Showers injuries exclude injuries involving contact with soap, towels, wash cloths, or other bathing products.

Beach Chairs/Benches/Bleachers (Falls): Beach Chairs/Benches/Bleachers Falls injuries mostly consist of falls while attempting to get up from or falls while getting into beach chairs, benches, and bleachers. Beach chairs can be different heights and used in different environments with varying surfaces, potential uneven ground, and are difficult to get in and out of even in a perfect environment. Benches and bleachers often do not have backs to lean up against, and bleachers tend to be elevated, with stairs, all of which may contribute to a fall.

Of the estimated 9,700 annual average ED-treated Beach Chairs/Benches/Bleachers Falls injuries to seniors, 71.4 percent (6,900 injuries) of injuries include product code 687 (i.e., Benches [excluding work benches]), 18.6 percent (1,800 injuries) of injuries include product code 4016 (i.e., Beach chairs or folding chairs), and 10.0 percent (1,000 injuries) of injuries include product code 1294 (i.e., Bleachers).

Beds (Falls; Overexertion; Struck Against/By): Most bed Falls injuries occur when attempting to get in or out of a bed. Falls cases while transitioning from a chair or commode to a bed were placed in the Falls category and Chairs/Sofas or Toilets subcategory, respectively, while falls while transitioning from a bed to any product were placed in the Falls category and Beds subcategory. Falls cases while transitioning between a wheelchair or walker to and from a bed were all placed in the Falls category and Beds subcategory, since wheelchairs and walkers are not considered consumer products under CPSC's jurisdiction.

Most Beds Overexertion injuries involve moving around in a bed (e.g., rolling, readjusting, turning over), or getting in or out of a bed and not involving a fall. Some other cases in the Overexertion category and Beds subcategory include activities such as making the bed, looking under a bed, moving a bed, helping another person into or out of a bed, or suffering pain while sleeping in a bed (other than chest or head pain). Some injuries are caused by sleeping in a new or unfamiliar bed or bedding (such as at a relative's house or at a hotel).

Cases while dressing, undressing, or while putting on or taking off footwear while on a bed were placed in the appropriate Clothing, Clothing/Footwear, or Footwear subcategory for Falls and Overexertion injuries, while cases of slipping on the floor with socks or footwear while getting in or out of a bed were placed in the Falls or Overexertion category and Beds subcategory.

Beds Struck Against/By injuries include contact with bed products such as the bed frame, bed mattresses, bed rails, or headboards, and exclude contact with bedding or blankets, or making contact with other products while in a bed, all while no fall is indicated by the case narrative. Cases include contact injuries while moving beds or beds leaning against walls that fall on individuals. All types of beds are included, from bunk beds to pull-down wall beds.

Boxes (Falls; Overexertion): Boxes Falls injuries are mostly caused by slipping or tripping and falling over boxes, or falling while interacting with a box, such as while attempting to carry, lift, put down, or stand on a box.

Similarly, Overexertion Boxes injuries are mostly caused by picking up, putting down, or carrying boxes. Note that boxes can contain virtually anything inside them and are commonly used when moving homes or items. Therefore, boxes can be heavy and difficult to lift or carry, or, on the contrary, boxes can appear heavy and actually be very light, which could cause an overexertion injury when initially applying too much effort or force than is needed to lift a box.

Brooms/Mops/Vacuums (Falls): Most Brooms/Mops/Vacuums Falls injuries involve slipping or tripping over a broom, mop, vacuum, vacuum electrical cord, other products while operating these products, freshly mopped floors, or while plugging in or unplugging vacuums. These activities require exerting coordinated force with the upper body while balancing oneself with the lower body, often over a considerable period of time.

Of the estimated 8,700 annual average ED-treated Brooms/Mops/Vacuums Falls injuries to seniors, 49.2 percent (4,300 injuries) of injuries involve a vacuum, 29.5 percent (2,600 injuries) involve falls during or after mopping a floor, and 18.6 percent (1,600 injuries) involve sweeping with a broom or a dustpan.

Carpet/Rug (Falls): Most Carpet/Rug Falls injuries involve slipping or tripping on or over a carpet or rug, catching a foot, toe, or footwear on the carpet or rug, or simple ground level falls while on a carpet or rug. Carpets and Rugs may have holes or loose strands and can bunch up, all of which are tripping hazards. Certain carpets and rugs can slip very easily if placed on an incompatible floor when exerting walking or running force over them.

Of the estimated 81,200 annual average ED-treated Carpet/Rug Falls injuries to seniors, 80.1 percent (65,000 injuries) of injuries include product code 676 (i.e., Rugs or carpets, not specified), 11.2 percent (9,100 injuries) of injuries include product code 612 (i.e., Runners, throw rugs or doormats [excluding bathtub mats]), and 8.9 percent (7,200 injuries) of injuries include product code 613 (i.e., Room-sized, wall-to-wall or outdoor carpeting [excluding runners]). Note that there are eight cases of seniors with two of these products coded, which explains why the percentages above sum to slightly more than 100 percent.

Chairs/Sofas (Falls; Overexertion; Struck Against/By): The Chairs/Sofas Falls methodology is the same as the Beach Chairs/Benches/Bleachers', and the Chairs/Sofas Overexertion methodology is the same as the Beds' described above. Chairs/Sofas products include couches, davenports, divans, futons, recliner chairs, rocking chairs, sofas, studio couches, and unspecified chairs or sofas.

The Chairs/Sofas Struck Against/By injuries include contact or collisions of all types with every kind of chair, couch, or sofa product, including while carrying, moving, or ambulating, all while no fall is indicated by case narratives.

Of the estimated 200,800 annual average ED-treated Chairs/Sofas Falls injuries to seniors, 72.4 percent (145,300 injuries) of injuries include product code 4074 (i.e., Chairs, other or not specified), 16.3 percent (32,800 injuries) of injuries include product code 679 (i.e., Sofas, couches, davenports, divans or studio couches), 10.8 percent (21,700 injuries) of injuries

include product code 670 (i.e., Chair, recliner), and the remaining injuries involve various other or unspecified chairs.

Of the estimated 19,200 annual average ED-treated Chairs/Sofas Overexertion injuries to seniors, 57.0 percent (10,900 injuries) of injuries include product code 4074 (i.e., Chairs, other or not specified), 25.9 percent (5,000 injuries) of injuries include product code 679 (i.e., Sofas, couches, davenports, divans or studio couches), 16.9 percent (3,200 injuries) of injuries include product code 670 (i.e., Chair, recliner), and the remaining injuries involve various other or unspecified chairs.

Of the estimated 7,400 annual average ED-treated Chairs/Sofas Struck Against/By injuries to seniors, 67.7 percent (5,000 injuries) of injuries include product code 4074 (i.e., Chairs, other or not specified), 13.2 percent (1,000 injuries) of injuries include product code 679 (i.e., Sofas, couches, davenports, divans or studio couches), 13.1 percent (1,000 injuries) of injuries include product code 670 (i.e., Chair, recliner), and the remaining injuries involve various other or unspecified chairs.

Clothing (Falls): Most Clothing Falls injuries involve slipping while wearing socks, tripping over or while wearing loose-fitting pants, while dressing or undressing, getting clothing snagged on something, or while partaking in various laundry activities from carrying or folding laundry to loading laundry into machines. Cases of Falls while dressing or undressing were placed in the Clothing subcategory if done while sitting on a bed, chair, or toilet. Falls while carrying laundry were placed in the Clothing subcategory, unless the fall occurred while on Balconies/Decks/Porches or Ramps/Stairs/Steps, and then the case was placed in one of these respective subcategories.

Clothing/Footwear (Overexertion): The Clothing/Footwear Overexertion subcategory combines the products in the Clothing and Footwear subcategories, since similar bending, contorting, and pulling motions of the body are done while putting on or taking off clothes and footwear and because the estimates for Overexertion injuries for Clothing and Footwear alone are not large enough to use in analysis in Table 14 through Table 24.

Most Clothing/Footwear Overexertion injuries include overexertion injuries suffered while dressing or undressing, putting on or taking off shoes, pain or injuries caused by slipping or tripping and not falling, rolling or twisting ankles, and while partaking in various laundry activities, from carrying or folding laundry to loading or unloading laundry into clothes washers and dryers. Dressing, undressing, and putting on and taking off footwear is a daily activity most people take part in; laundry is commonly a daily or weekly activity done by most people. These activities require many different exertions of the body from bending or contorting many body parts while dressing, undressing, putting on, or taking off footwear or socks, to the muscle usage and coordination required to carry, lift, or move laundry while walking or putting laundry into washers or dryers.

Clothing and Footwear are separate Falls subcategories because slipping or tripping and falling while wearing socks is different than most Falls caused by Footwear. The materials of socks and most footwear have different friction coefficients with the many varying flooring surfaces. Cases of foot pain and injuries due to overuse of footwear or ill-fitting footwear, where repetitive contact with the footwear is described as the cause of the injury, were placed in the Struck Against/By category and Other subcategory.

Of the estimated 11,900 annual average ED-treated Clothing/Footwear Overexertion injuries to seniors, 55.0 percent (6,500 injuries) of injuries involve daywear, outerwear, or unspecified clothing (e.g., product codes 1645, 1646, and 1658), and 40.2 percent (4,800 injuries) of injuries include product code 1615 (i.e., Footwear). The remaining cases involve clothing accessories such as belts, gloves, handbags, hats, purses, and wallets.

Counters/Sinks (Falls): Most Counters/Sinks Falls injuries involve falling into or onto counters or sinks, usually while standing in front of them or while walking towards them. Besides stand-alone sinks, counters are typically encased around sinks or are present in nearby or adjacent locations. Most counters and sinks are located in bathrooms and kitchens, and less often in other areas of homes, such as bars, laundry rooms, or mud rooms. People tend to stand in front of counters and sinks for extended periods of time, balancing on their feet while using their hands to perform activities such as brushing their teeth or other hygiene-related activities like washing their hands, applying makeup or other cosmetic products, rinsing or washing dishes, or preparing meals. Therefore, balance is required by the legs without stabilizing oneself with the hands during many activities performed while standing adjacent to counters and sinks.

Of the estimated 21,600 annual average ED-treated Counters/Sinks Falls injuries to seniors, 60.7 percent (13,100 injuries) of injuries include product code 1864 (i.e., Counters or countertops [excluding bars]), and 40.0 percent (8,600 injuries) of injuries include product code 648 (i.e., Sinks [excluding faucets]). Note that there are six cases of seniors with both of these products coded, which explains why the percentages above sum to slightly more than 100 percent.

Elevators/Escalators (Falls): Most Elevators/Escalators Falls injuries involve falls while on elevators, escalators, or moving walks. Transitions onto and off escalators and moving walks, as well as ambulating on, up, or down these moving stairs, requires timing, stabilization, and coordination of upper and lower body limbs. When elevators begin and end an ascension or descension, additional or less pressure is exerted from the floor onto the body which requires a reactive stabilization to remain in a standing position, and there are sometimes jerky movements involved with some elevators. In addition, there is often a slight change in floor height or a gap between an elevator floor and the floor outside the elevator, which is a tripping hazard.

Of the estimated 10,400 annual average ED-treated Elevators/Escalators Falls injuries to seniors, 52.2 percent (5,400 injuries) of injuries include product code 1890 (i.e., Escalators), and 46.6 percent (4,800 injuries) of injuries include product code 1889 (i.e., Elevators or other lifts [excl. escalators, hoists, jacks, forklifts, and automotive lifts]), and the remaining cases include injuries involving moving walks.

Exercise Activity (Falls; Overexertion): Exercise Activity Falls include just about any mode of exercising not involving a consumer product—including hiking, cardio classes, jumping, or body movement exercises like jumping jacks, walking, jogging, running, swimming, and yoga—because it is assumed that consumer products are at least being worn during the activity and therefore may contribute to a conceivable injury. Falls while exercising using consumer products such as treadmills were placed in the Falls category and Recreation/Sports subcategory. If clothing or footwear is mentioned in a case narrative as the cause of a fall,

rather than the Exercise Activity, then the case is placed in the Falls category and the Clothing or Footwear subcategory.

Exercise Activity Overexertion cases include the following symptoms while exercising: feeling dizzy, heat exhaustion, lightheaded, palpitations, passing out, shortness of breath, syncope, vertigo, or other internal body weakness or events with no fall or collision with any consumer products mentioned in the case narrative. Most case narratives which vaguely describe pain or injury to body parts other than the ear, nose, and mouth were classified as Overexertion injuries.

Of the estimated 27,200 annual average ED-treated Exercise Activity Falls injuries to seniors, 98.7 percent (26,800 injuries) of injuries include product code 3299 (i.e., Exercise [activity or apparel without equipment], including aerobics, stretching, walking, jogging, running [excluding track and field]).

Of the estimated 36,700 annual average ED-treated Exercise Activity Overexertion injuries to seniors, 93.4 percent (34,300 injuries) of injuries include product code 3299 (i.e., Exercise [activity or apparel without equipment], including aerobics, stretching, walking, jogging, running [excluding track and field]), and 6.7 percent (2,500 injuries) of injuries include product code 3274 (i.e., Swimming [activity, apparel or equipment; excluding flotation devices]). Note that there is one case of a senior with both of these products coded, which explains why the percentages above sum to slightly more than 100 percent.

Floor [no other products] (Falls): Cases of Floor Falls injuries in this report consist of fall cases where the floor (i.e., product code 1807) is the only consumer product involved and coded. Floor Falls cases involving non-consumer products such as crutches, walkers, and wheelchairs, among many other non-consumer products are included. If only two products are coded for a case, in the Falls category, if any consumer product is coded along with the floor product code in one of the three product code slots, then the corresponding non-floor product subcategory is where the case was placed. There is only one product code for Floors (i.e., product code 1807), so there is no way to distinguish types of Floors involved in Falls.

Footwear (Falls): Most Footwear Falls injuries involve slipping or tripping and falling, where the slip or trip and fall is caused by footwear worn at the time of the fall, tripping over footwear lying on the floor, or falls while attempting to put on or take off footwear. Recall that slips and falls while getting in or out of beds, chairs, or toilets were placed in the Falls category and either the Beds, Chairs/Sofas, or Toilets subcategory—not the Clothing (due to socks) or Footwear subcategory. Among the many variations of Footwear products are sandals, slippers, and high heels, all of which often have inherent hazards when worn, especially on certain floor surfaces.

Of the estimated 46,400 annual average ED-treated Footwear Falls injuries to seniors, 18.6 percent (8,600 injuries) include "slippers" or "slipper " in the case narrative, and 5.9 percent (2,700 injuries) include "sandal" in the case narrative. There is only one product code for Footwear (i.e., product code 1615), so there is no easy way to distinguish types of Footwear involved in Falls.

Furniture (various) (Falls; Struck Against/By): Most Furniture (various) Struck Against/By injuries involve collisions into furniture or furniture colliding or falling onto people,

when the patient does not fall or the collision with the furniture causes the primary reason for ED-treatment instead of any injuries accumulated due to a fall. Similarly, most Furniture (various) Falls injuries involve falling or tripping into or over furniture or falling off furniture. The main differences between Furniture Falls and Struck Against/By subcategories is whether a fall occurred during the scenario, and if a collision before the fall is the primary reason for the ED-treatment instead of any injuries accumulated from a fall.

If clothing, footwear, or a carpet or rug caused a fall or collision with furniture or a house structure, then the case was placed into the appropriate Clothing, Footwear, or Carpet/Rug subcategory. Furniture products include buffets, bureaus, cabinets, chests, desks, dressers, footstools, hassocks, ottomans, racks, room dividers, shelves, tables (excluding baby changing tables and billiard or pool tables), television stands or tables, and unspecified furniture.

Of the estimated 100,000 annual average ED-treated Furniture Falls injuries to seniors, 46.1 percent (46,100 injuries) include product code 4057 (i.e., Tables, not elsewhere classified [excl. baby changing tables, billiard or pool tables and television tables or stands]), 22.3 percent (22,400 injuries) include product code 4056 (i.e., Cabinets, racks, room dividers and shelves, not elsewhere classified), 18.9 percent (18,900 injuries) include product code 604 (i.e., Desks, dressers, chests, bureaus, or buffets), and 9.6 percent (9,700 injuries) include product code 4014 (i.e., Furniture, not specified).

Of the estimated 26,500 annual average ED-treated Furniture (various) Struck Against/By injuries to seniors, 36.6 percent (9,700 injuries) include product code 4056 (i.e., Cabinets, racks, room dividers and shelves, not elsewhere classified), 34.2 percent (9,100 injuries) include product code 4057 (i.e., Tables, not elsewhere classified [excl. baby changing tables, billiard or pool tables and television tables or stands]), 15.4 percent (4,100 injuries) include product code 604 (i.e., Desks, dressers, chests, bureaus, or buffets), and 11.6 percent (3,100 injuries) include product code 4014 (i.e., Furniture, not specified).

House Structure Surfaces (Falls; Struck Against/By): In both Falls and Struck Against/By categories, the House Structure Surfaces subcategory methodology is the same as the Furniture subcategory methodology described above. House structure surface products include awnings; banisters; blinds; ceilings; curtain rods, hooks, or rings; doors and door frames; drapery; garage doors; glass panel doors; handrails; panels for doors and windows; particleboard walls; railings; screens; security barriers; shades; shutters; sills; wallpaper; walls; windows and window frames; and wood paneling.

Of the estimated 102,700 annual average ED-treated House Structure Surfaces Falls injuries to seniors, 43.5 percent (44,600 injuries) include product code 1884 (i.e., Ceilings and walls [interior part of completed structure]), 27.0 percent (27,700 injuries) include product code 1893 (i.e., Doors, other or not specified), 17.4 percent (17,800 injuries) include product code 1878 (i.e., Doorsills or frames), and 3.8 percent (3,900 injuries) include product code 1829 (i.e., Handrails, railings or banisters).

Of the estimated 36,500 annual average ED-treated House Structure Surfaces Struck Against/By injuries to seniors, 40.9 percent (14,900 injuries) include product code 1893 (i.e., Doors, other or not specified), 27.2 percent (9,900 injuries) include product code 1884 (i.e., Ceilings and walls [interior part of completed structure]), 10.8 percent (3,900 injuries) include

product code 1878 (i.e., Doorsills or frames), and 6.2 percent (2,300 injuries) include product code 1886 (i.e., Garage doors [excluding automatic garage doors or door openers]).

Kitchen (Falls): Most Kitchen Falls injuries involve falls while leaning against, holding onto, falling into, attempting to lift or move, or tripping over a kitchen appliance. Kitchen products include coal, electric, gas, wood-burning, other, or unspecified ovens; ranges and stoves; dishwashers; microwave ovens; and refrigerators and freezers. Dishwasher doors, when open, are a tripping hazard, and loading and unloading a dishwasher requires bending over and reaching while holding items in hands, such that, if a fall does occur, it may be less likely one is able to brace oneself. Freezer and refrigerator doors have resistance when opening, where too much or too little force can unsteady someone, which potentially may cause a loss of balance and is a fall hazard. Ovens often require moving slightly heavy items that may be hot in such ways that require balance without the ability to stabilize oneself because of occupied hands, and they often require bending or reaching exertions to put items in or take items out of low or high ovens compared to patient height. Microwave oven doors also have a bit of resistance when initially opening, and when the door is opened, it may need to be avoided by repositioning feet. In addition to many of the inherent hazards to Kitchen appliances, hot (or cold) items are being handled when dealing with these products, which can contribute to fall injuries.

Of the estimated 17,500 annual average ED-treated Kitchen Falls injuries to seniors, 61.5 percent (10,700 injuries) include product code 276 (i.e., Refrigerators), 16.8 percent (2,900 injuries) of injuries involve ranges or ovens (i.e., product codes 278, 279, 280, 281), and 12.8 percent (2,300 injuries) include product code 214 (i.e., Dishwashers).

Knives (Cut/Pierce): Knives products include all types and sizes of knives, from box cutters, cigar cutters, and knives used to cut pumpkins and chop vegetables to machetes and swords. Knives are also used to cut all types of items, from food to construction materials to outdoor brush. Most Knives Cut injuries are amputations, avulsions, cuts, lacerations, or punctures. Only 0.8 percent of cases among all Cut/Pierce Knives injuries to adults or seniors did not include one of the two encompassing product codes 464 (i.e., Knives, not elsewhere classified) or 836 (i.e., Knives with replaceable blades), so it is not possible to discern the proportions of injuries by types of knife.

Ladders (Falls): Most Ladders injuries involve falls off ladders and step ladders, with some cases of falls while carrying a ladder. There are many activities done while using a ladder which require balance and coordination between upper and lower limbs. Ladders can be unstable if the ground or floor surface is uneven or if the ladder is not in good shape. Note that step stools (i.e., product code 620) are Ladders products; not Stools products.

Of the estimated 53,100 annual average ED-treated Ladders Falls injuries to seniors, 15.4 percent (8,200 injuries) include product code 620 (i.e., Step stools), 10.9 percent (5,800 injuries) include product code 618 (i.e., Stepladders [excluding step stools]), and 72.9 percent (38,700 injuries) of injuries include product code 4078 (i.e., Ladders, other or not specified). Potentially, some of the cases coded with product code 4078 might be step stools or step ladders.

In 5.5 percent (2,900 injuries) of Ladders Falls injuries to seniors, the excluded product code 2002 (i.e., Plants, trees, and shrubs [living]) is included, which mostly involves falls off ladders while trimming bushes, shrubs, trees, or other plant care.

Outdoor Work/Lawn Tools (Falls; Overexertion): Outdoor Work/Lawn Tools Falls and Overexertion injuries involve performing various outdoor activities, such as gardening, mowing, doing yard work, getting the mail from the mailbox, and removing snow and ice from the driveway and vehicles. Since this subcategory involves strenuous activity, like the exercise and sports subcategories, cases of heat exhaustion, shortness of breath, syncope, and other body weakness symptoms while using or taking part in an activity related to Outdoor Work/Lawn Tools were placed in the Overexertion category and Outdoor Work/Lawn Tools subcategory.

Outdoor Work/Lawn Tools products include animal traps, decorative yard equipment such as water features like man-made ponds and fountains; garden hoses, nozzles or sprinklers; garden sprayers; grass and leaf catchers (and other attachments for lawn mowers); greenhouse supplies or gardening supplies (excluding plant stands and chemicals); hatchets or axes; lawn vacuums; leaf blowers; log splitters; manual and power garden tools; manual and power hedge trimmers, lawn trimmers, or edgers; manual snow or ice removal tools; manual, power, and rotary push lawn mowers, and lawn mowers not specified; mail boxes (injuries while getting the mail); other and not specified manual pruning or trimming equipment; outdoor electric lighting equipment; plant foods or fertilizers for potted plants; power leaf mulchers and grinders; power tillers and cultivators (not farm equipment); powered brush cutters; powered insect traps; pruning or trimming equipment, not specified; seed and fertilizer spreaders; snow throwers and blowers; tool sheds or greenhouse structures; and wheelbarrows or lawn carts.

Note that chain saws and other saws are products included in the Saws subcategory, but other tools used to trim greenery are in the Outdoor Work/Lawn Tools subcategory. Lawn mowers known to be riding lawn mowers, and coded as such, are included in the Other Riders category, but the product codes of unspecified lawn mowers (i.e., product codes 1401 and 1439) are in the Outdoor Work/Lawn Tools subcategory.

Of the estimated 32,900 annual average ED-treated Outdoor Work/Lawn Tools Falls injuries to seniors, 22.0 percent (7,200 injuries) include product code 1414 (i.e., Garden hoses, nozzles or sprinklers); 15.9 percent (5,200 injuries) include product code 1413 (i.e., Greenhouse supplies or gardening supplies [excluding plant stands, tools, hoses, sprayers and chemicals]); 13.5 percent (4,400 injuries) include product code 1439 (i.e., Lawn mowers, not specified); and 11.4 percent (3,700 injuries) include product code 1465 (i.e., Decorative yard equipment, including mail boxes, excluding water features), where most of the decorative yard equipment Falls injuries occured while retrieving mail from the mailbox, and others involve bird feeders and other decorative yard products.

In 12.6 percent (4,100 injuries) of Outdoor Work/Lawn Tools Falls injuries to seniors, the excluded product code 2002 (i.e., Plants, trees, and shrubs [living]) is included, which mostly entails trimming bushes, shrubs, trees, or other plants but did not include a ladder. In the Falls category, if a ladder is used while trimming trees or other plants while using outdoor lawn tools, then the case was placed in the Ladders subcategory.

Of the estimated 19,700 annual average ED-treated Outdoor Work/Lawn Tools Overexertion injuries to seniors, 26.6 percent (5,300 injuries) include product code 1439 (i.e., Lawn mowers, not specified), 16.7 percent (3,300 injuries) include product code 1403 (i.e., Other unpowered garden tools), 13.0 percent (2,600 injuries) include product code 1415 (i.e., Manual snow or ice removal tools), and 9.4 percent (1,800 injuries) include product code 1413

(i.e., Greenhouse supplies or gardening supplies [excluding plant stands, tools, hoses, sprayers and chemicals]).

Pet Products (Falls): Most Pet Products Falls injuries involve falls while tripping over a dog leash, being pulled by a dog on a leash, or tripping and falling over pet products. Falls caused by direct contact with an animal are excluded. Pet products (i.e. product code 1715) includes beds, bones, cages, collars, gates, leashes, and toys, among other pet products.

Of the estimated 23,300 annual average ED-treated Pet Products Falls injuries to seniors, 54.7 percent (12,800 injuries) include "leash" in the case narrative, and 4.9 percent (1,200 injuries) include "gate" in the case narrative. Cases involving leashes is likely a minimum estimated number of injuries involving pet leashes since many narratives may omit mention of a leash and instead indicate that a fall occurred 'while walking a dog'. There is only one product code for Pet Products (i.e., product code 1715), so there is no easy way to distinguish the proportions of injuries by types of pet products involved in Falls.

Ramps/Stairs/Steps (Falls; Overexertion): Almost all Falls injuries and Overexertion pain or injuries that occur while on stairs is included in the Ramps/Stairs/Steps subcategory, regardless of other consumer product involvement. The Ramps/Stairs/Steps subcategory takes precedence over all other subcategories when an incident takes place on stairs, steps, or ramps, except for cases involving Balconies/Decks/Porches or Ladders subcategory products. The balcony subcategory takes precedence over the Ramps/Stairs/Steps subcategory because when a product is coded from each of these subcategories for a single case the stairs product code is usually referring to steps located on a balcony, deck, or porch. For cases involving both Ladders and Ramps/Stairs/Steps, narratives were read to determine which product more primarily contributed to the ED-visit. Ramps/Stairs/Steps Falls injuries can occur while ascending, descending, or just sitting or standing on the stairs and falling.

Because Ramps/Stairs/Steps involve strenuous activity, like the Exercise and Recreation/Sports subcategories, cases of exhaustion, shortness of breath, syncope, and other similar body weakness symptoms while on stairs were placed in the Overexertion category and Ramps/Stairs/Steps subcategory.

There are three product codes for the Ramps/Stairs/Steps subcategory: 1840 (i.e., Pull-down or folding stairs), 1842 (i.e., Stairs or steps [excluding pull-down and folding stairs]), and 1843 (i.e., Ramps or landings).

Of the estimated 278,200 annual average ED-treated Ramps/Stairs/Steps Falls injuries to seniors, 97.6 percent (271,600 injuries) include product code 1842 (e.g., Stairs or steps [excluding pull-down and folding stairs]).

Of the estimated 21,900 annual average ED-treated Ramps/Stairs/Steps Overexertion injuries to seniors, 98.8 percent (21,700 injuries) include product code 1842 (i.e., Stairs or steps [excluding pull-down and folding stairs]).

Recreation/Sports (Falls; Overexertion): There are 56 product codes in the Recreation/Sports subcategory, which are all listed in Table 40 in Appendix B, and the corresponding sports or recreational activities to these product codes can be found in the NEISS Coding Manual.[36] Among these 56 product codes, Table 47 shows the specific sports or recreational activities making up the largest proportions of annual average number of ED-

treated Recreation/Sports Falls and Overexertion injuries to adults ages 25 to 64 years and seniors ages 65 years and older .

Adults likely participate in contact and other more physically demanding sports at a higher rate than seniors. In other words, of all sports and recreational activities, higher proportions of seniors likely participate in non-contact and less physically demanding sports compared to the adult age group. Therefore, comparing proportions of seniors with adults may not produce very meaningful comparisons. For instance, 70 percent of adult compared to 25 percent of senior Falls injuries, and 56 percent of adult and 15 percent of senior Overexertion injuries involve Recreation/Sports activities not specifically listed in Table 47, so most senior Recreation/Sports-related Falls and Overexertion injuries are captured by the specific activities listed in the table while most adult injuries involve many other Recreation/Sports activities not listed in the table. The activities in Table 47 were chosen based on the activities which cause the most seniors to be ED-treated, so there are likely Recreation/Sports activities with higher estimates for adult injuries not listed in the table.

The senior Recreation/Sports activities with the most estimated annual average ED-treated Falls injuries are Pickleball (17 percent), Exercise Equipment (15 percent), Golf (12 percent), Tennis (9 percent), and Dancing (9 percent). The senior Recreation/Sports activities with the most estimated annual average ED-treated Overexertion injuries are Golf (30 percent), Exercise Equipment (17 percent), Pickleball (13 percent), Tennis (9 percent), and Weightlifting (9 percent).

Among all Recreation/Sports Falls injuries for each respective senior age group, 21 percent of injuries to seniors ages 65 to 74 are associated with Pickleball, compared to 14 percent of seniors ages 75 to 84, and four percent of seniors ages 85 years and older. Among all Recreation/Sports Overexertion injuries for each respective senior age group, 14 percent of injuries to seniors ages 65 to 74 are associated with Pickleball, compared to 13 percent of seniors ages 75 to 84, and less than one percent of seniors ages 85 years and older. As current as 2024 NEISS data, cases involving ED-treated pickleball injuries are currently coded under a catchall product code 3235 (i.e., Other ball sports [activity, apparel or equipment]) and were identified, mostly within this product code by searching case narratives containing “pickl”.[68]

The percentages of all Recreation/Sports Falls and Overexertion injuries which involve Exercise Equipment are each higher for seniors ages 85 years and older (28 percent of Recreation/Sports Falls; 31 percent of Recreation/Sports Overexertion injuries) compared to the younger two senior age groups. Among all Recreation/Sports injuries, 17 percent of Falls and 18 percent of Overexertion injuries to seniors ages 75 to 84 years old involve Exercise Equipment, whereas 12 percent of Falls and 14 percent of Overexertion injuries to seniors ages 65 to 74 years old involve Exercise Equipment. In other words, among all types of Recreation/Sports injuries, a higher percentage of seniors ages 85 years and older are being

[68] For each category in Table 47, except for Pickleball, the estimates include all cases in the respective Falls or Overexertion Sports/Recreation subcategories in which each product was coded in prod1, prod2, or prod3. When more than one Recreation/Sports product was coded for a single case, then case narratives were read to determine which product group to place each case. Pickleball injuries are coded under the other ball sports product code (i.e., product code 3235), therefore staff identified cases mentioning pickleball by reading case narratives.

ED-treated for injuries involving Exercise Equipment instead of other Recreation/Sports activities, compared to the two younger senior age groups.

Table 47: Annual Average Estimated Number of ED-Treated Falls and Overexertion Injuries for Age Groups by Recreation/Sports Product, 2022-2023 (Percent of Category Total Estimate for each Age Group)

Sport or Recreational Activity (Product Code)	Adults Ages 25 to 64 Years	Seniors Ages 65 and Older	65 to 74 Years	75 to 84 Years	85 Years and Older
Total Recreation/ Sports Fall Injuries	**113,300 (100%)**	**39,300 (100%)**	**22,700 (100%)**	**13,100 (100%)**	**3,500 (100%)**
Dancing (3278)	5,500 (5%)	3,500 (9%)	1,500 (7%)	– (11%)	– (17%)
Exercise Equipment (3277)	5,900 (5%)	6,100 (15%)	2,800 (12%)	2,200 (17%)	1,000 (28%)
Fishing (3223)	3,200 (3%)	1,900 (5%)	1,300 (6%)	– (3%)	– (3%)
Golf (1212)	1,600 (1%)	– (12%)	– (9%)	– (15%)	– (17%)
Pickleball (subset of 3235)	2,900 (3%)	– (17%)	– (21%)	– (14%)	– (4%)
Snow Skiing (3283)	– (11%)	– (8%)	– (11%)	– (4%)	– (3%)
Tennis (3284)	1,700 (1%)	– (9%)	– (7%)	– (13%)	– (7%)
All Other Recreation/ Sports Fall Injuries	79,700 (70%)	10,000 (25%)	6,300 (28%)	2,900 (22%)	800 (22%)
Total Recreation/ Sports Overexertion Injuries	**182,200 (100%)**	**34,000 (100%)**	**20,400 (100%)**	**11,700 (100%)**	**1,900 (100%)**
Bowling (1206)	3,500 (2%)	1,300 (4%)	700 (4%)	– (3%)	– (8%)
Dancing (3278)	9,300 (5%)	1,300 (4%)	900 (5%)	– (3%)	– (4%)
Exercise Equipment (3277)	14,800 (8%)	5,600 (17%)	3,000 (14%)	2,100 (18%)	600 (31%)
Golf (1212)	7,300 (4%)	– (30%)	– (26%)	– (36%)	– (31%)
Pickleball (subset of 3235)	4,500 (2%)	– (13%)	– (14%)	– (13%)	– (<1%)
Tennis (3284)	3,400 (2%)	– (9%)	– (8%)	– (12%)	– (3%)
Weightlifting (3265)	37,700 (21%)	3,000 (9%)	2,200 (11%)	600 (5%)	– (11%)
All Other Recreation/ Sports Overexertion Injuries	101,500 (56%)	5,200 (15%)	3,800 (19%)	1,200 (10%)	– (12%)

Source: U.S. Consumer Product Safety Commission: NEISS. Estimates that are not statistically reliable are presented as "–" (see Appendix A). Estimates are rounded to the nearest hundred and therefore may not add up to the total. Percentages may not sum to 100 due to rounding.

Saws (Cut/Pierce): Saws products include all types and sizes of saws, and Saws are used to cut all types of items in different ways. Most Saws Cut injuries are amputations, avulsions, cuts, lacerations, or punctures. Saws products include band saws, bench saws, chain saws, hacksaws, hand saws, jigsaws, portable circular power saws, radial arm saws, sabre saws, table saws, and other unspecified types of saws.

Of the estimated 21,100 annual average ED-treated Saws Cut/Pierce injuries to seniors, 49.6 percent (10,500 injuries) include product code 841 (i.e., Bench or table saws), 18.0 percent (3,800 injuries) include product code 1411 (i.e., Chain saws), 9.9 percent (2,100 injuries) include product code 845 (i.e., Saws, not specified), and 9.6 percent (2,000 injuries) include product code 895 (i.e., Power saws, other or not specified).

Stools (Falls): Most of the Stools Falls injuries include falling while sitting or standing on a stool by slipping off, the stool slips or tips, or trips into or over a stool while ambulating and making contact with a stool. Note that step stools (i.e., product code 620) is a Ladders subcategory product.

Of the estimated 16,400 annual average ED-treated Stools Falls injuries to seniors, 61.9 percent (10,100 injuries) include product code 4080 (i.e., Stools, other or not specified), and 37.4 percent (6,100 injuries) include product code 4025 (i.e., Barstools or kitchen stools).

Toilets (Falls): Most Toilets Falls injuries involve falls while attempting to get on or off a toilet or commode. Recall, cases of Falls involving putting on or taking off clothing or footwear while on a toilet or commode were placed in the appropriate Clothing or Footwear subcategory, while cases of slipping on the floor with socks or footwear while getting on or off of a toilet or commode were placed in the Falls category and Toilets subcategory. Getting on and off a toilet requires balance, coordination, knee bending, and strength, and if on a toilet for a prolonged period of time, various issues may arise, such as body parts going numb. Toilets (i.e. product code 649) include bedside commodes.

Of the estimated 97,600 annual average ED-treated Toilets Falls injuries to seniors, 9.5 percent (9,300 injuries) include "commo” in the case narrative, which likely means there are at least this many injuries involving a commode toilet and there are likely additional commode toilets not referred to as a “commode” in case narratives. However, there is only one product code for Toilets (i.e., product code 649) so there is no way to distinguish types of toilets involved in Falls.

Waste (Falls; Overexertion): Most Waste Falls injuries occur while falling into or over a trash receptacle, slipping or tripping while moving trash receptacles, and Falls while carrying, moving, placing, or throwing bags or other items into a trash receptacle or dumpster. Waste Overexertion injuries can also occur during any of the above Waste activities where no fall occurs. Since this subcategory involves strenuous activity including carrying, lifting, pulling, or throwing heavy objects for potentially long periods of time while ambulating, cases of shortness of breath, syncope, and other body weakness symptoms involving Waste were placed in the Overexertion category and Waste subcategory.

The task of getting rid of trash is done by many people on a daily or weekly basis. When moving trash outdoors, there are added hazards from the elements, such as ice, rain, snow, and wind that may be faced to rid trash from the home on scheduled trash pickup dates, which requires moving trash to the street on particular days regardless of environmental conditions. Waste containers include cases involving trash and dumpsters; people found sleeping in dumpsters are excluded. There is only one product code for Waste (i.e., product code 413), so there is no way to distinguish types of waste products.

CDC NCHS Mortality Data Death Categories

This section covers the following fatality tiers presented in Table 25 through Table 33 above: the Non-Mechanical hazard tier; the Riding Consumer Products tier, the Non-Riding Product Mechanical hazard tier, and an Other/Unknown product/hazard tier for cases that do not fall under the other categories.

Non-Mechanical Hazard Tier

Non-Mechanical hazard tier fatalities include the following categories: Fire-Related, Burns - Contact with Hot Objects, Electric Shock, Drowning, Explosion, Poisoning, and Suffocation.

Descriptions of **Fire-Related** cases from ICD-10 codes include exposure to controlled and uncontrolled fires in buildings or structures; ignition of highly flammable material or melting of nightwear or other clothing and apparel; and other specified, unspecified, or undetermined incidents involving smoke, fire, and flames.

Descriptions of **Burns (Contact with Hot Objects)** cases from ICD-10 codes include contact with hot air and other gases; drinks, food, fats, and cooking oils; engines, machinery, and tools; heating appliances, radiators and pipes; household appliances; other fluids, heat and substances, and metals; steam and other vapors; tap-water; and other hot objects.

Descriptions of **Electric Shock** cases from ICD-10 codes include exposure to electric transmission lines and other specified or unspecified electric currents.

Descriptions of **Drowning** cases from ICD-10 codes include accidental drowning and submersions, such as those following falls into or while in bathtubs or swimming pools; those due to an accident to, or while on board, a watercraft; those of other specified causes of accidental non-transport drowning; and submersions of unspecified cause or undetermined intent, including accidental drowning and submersion.

Descriptions of **Explosion** cases from ICD-10 codes include contact with explosive material; discharge of fireworks; and explosion and rupture of gas cylinders, pressurized tires, pipes, or hoses, and other specified pressurized devices. Note that most fireworks cases were placed in the Struck Against/By category in the injury section since it is the category most similar to explosion hazards.

Descriptions of **Poisoning** cases from ICD-10 codes include accidental or non-accidental poisoning by and exposure to alcohol, organic solvents, and halogenated hydrocarbons and their vapors; other gases and vapors; and other and unspecified chemicals and noxious substances.

Descriptions of **Suffocation** cases from ICD-10 codes include accidental suffocation and strangulation in bed; confined to or trapped in a low-oxygen environment; hanging, strangulation, and suffocation of determined and undetermined intent; inhalation and ingestion of other objects causing obstruction of respiratory tract; threat to breathing due to cave-in, falling earth, and other substances; and other or unspecified threats to breathing.

Riding Consumer Products Tier

Riding Consumer Products tier fatalities include the following categories: Animal Riding, Bicycles, and Other Riding Products (except for micromobility products).

Descriptions of **Animal Riding** cases from ICD-10 codes include animal riders or occupants of animal-drawn vehicles who are fatally injured while in a transport accident.

Descriptions of **Bicycles** cases from ICD-10 codes include pedal cycle rider injuries resulting in death due to collisions with cars, pick-up trucks, or vans; fixed or stationary objects; heavy transport vehicles or buses; other nonmotor vehicles; other pedal cycles, pedestrians, or animals; railway trains or railway vehicles; and two- or three-wheeled motor vehicles. In addition, Bicycles cases include fatal cases of pedal cycle riders injured in other, non-collision, and unspecified transport accidents. The Bicycles category for deaths captures the same sorts of cases found in the Bicycles and Accessories category in the injury section. There are no E-bikes in either bicycle category for injuries or deaths.

Descriptions of **Other Riding Products (Excluding Micromobility Products)** cases from ICD-10 codes include special all-terrain or other off-road motor vehicles; motor or non-motor vehicle accidents where the type of vehicle is unspecified; and specified non-traffic accidents where the victim's mode of transport is unknown.

Non-Riding Product Mechanical Hazard Tier

Non-Riding Product Mechanical hazard tier fatalities include the following categories: Cut/Pierce, Entrapment, Falls, Foreign Body, Machinery, Overexertion, and Struck Against/By.

Descriptions of **Cut/Pierce** cases from ICD-10 codes include contact with nonpowered hand tools, other powered hand tools, and household machinery; powered lawn mowers; sharp glass or other sharp objects; and foreign bodies or objects entering through the skin (but not the eye).

Descriptions of **Entrapment** cases from ICD-10 codes include cases of being caught, crushed, jammed, or pinched in or between objects. Most entrapment hazards in the injury section resulted in Overexertion or Struck Against/By injuries and were categorized based on the additional information available in the case narratives. Due to the absence of case narratives in the mortality data, such cases leading to fatalities are categorized as entrapment.

Descriptions of **Falls** cases from ICD-10 codes include falls involving beds and chairs; non-moving wheelchairs, nonmotorized scooters, and motorized mobility scooters; other furniture; playground equipment; ice skates, roller skates, skateboards, and skis; ladders and scaffolding; and stairs and steps. Falls also include falls due to ice and snow; falls from one level to another; falls from, out of, or through a building or structure; falling, jumping, or being pushed from a high place; falling, lying, or running before or into a moving object; falling from a tree or cliff; jumping or diving into water; same-level falls due to slipping, tripping, stumbling, colliding with another person, or while being carried or supported by other persons.

Descriptions of **Foreign Body** cases from ICD-10 codes include foreign bodies entering into or through eye or a natural orifice.

Descriptions of **Machinery** cases from ICD-10 codes include contact with lifting and transmission devices not elsewhere classified, and other and unspecified machinery.

Descriptions of **Overexertion** cases from ICD-10 codes include fatalities due to overexertion and strenuous or repetitive movements.

Descriptions of **Struck Against/By** cases from ICD-10 codes include being struck by thrown, projected, or falling objects; striking against or being struck by sports equipment or other objects; or contact with blunt objects. In addition, Struck Against/By cases include accidental contact with another person by the following modes: bite, hit, kick, strike, scratch, or twist, and cases of striking against or bumping into another person.

Other/Unknown Product/Hazard Tier

Descriptions of **Other/Unknown** cases from ICD-10 codes include specified and unspecified product/hazards that cannot easily be placed in any of the other categories, which includes exposure to excessive cold or heat of man-made origin, high and low air pressure and changes in air pressure, and other specified or unspecified factors. In addition, Other/Unknown cases involve other specified and unspecified events, and sequelae of other accidents.