SAFE KIDS WORLDWIDE

Bicycle, Skate and Skateboard Safety Fact Sheet

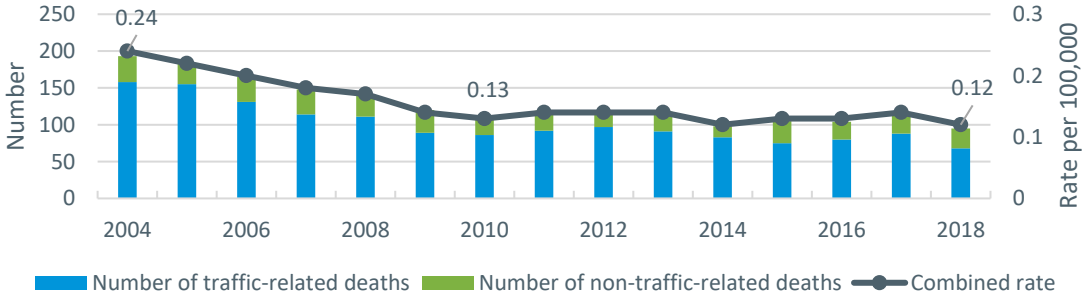
LAST UPDATED APRIL 2020

Nearly 2,000 children[a] died of injuries[b] while riding a bicycle in the U.S. in the years between 2004 and 2018.[1]

Fatal Injuries

- Ninety-five children were fatally injured while riding a bicycle in 2018, at a rate of 0.12 per 100,000 children.[1]
- Although the rate of fatal bicycling injuries among children decreased by 46 percent between 2004-2010, it has remained relatively unchanged since then (Figure 1).[1]

Figure 1. Number and Rate of Fatal Bicycle Injuries by Year and Cause, Ages 0-19, 2004-2018



  - The number of traffic-related fatal bicycling injuries among children declined by 57 percent from 2004-2018 (N=158 and N=68, respectively), while the number of non-traffic-related fatal injuries declined by only 23 percent (N=35 and N=27, respectively).[1]
  - Children ages 15-19 and 10-14 accounted for the highest proportion of fatal bicycling injuries among children in the 15-year period between 2004-2018 (42 percent and 34 percent, respectively).[1] Children ages 5 to 9 accounted for 18 percent of the fatal injuries over that same time period, and the youngest child age group – those under age 5 – accounted for only 4 percent.[1]
  - The rate of fatal bicycling injury among 10- to 14-year-olds decreased by 72 percent from 2004 to 2018 (0.36 and 0.10 per 100,000, respectively), while the rate among 15-

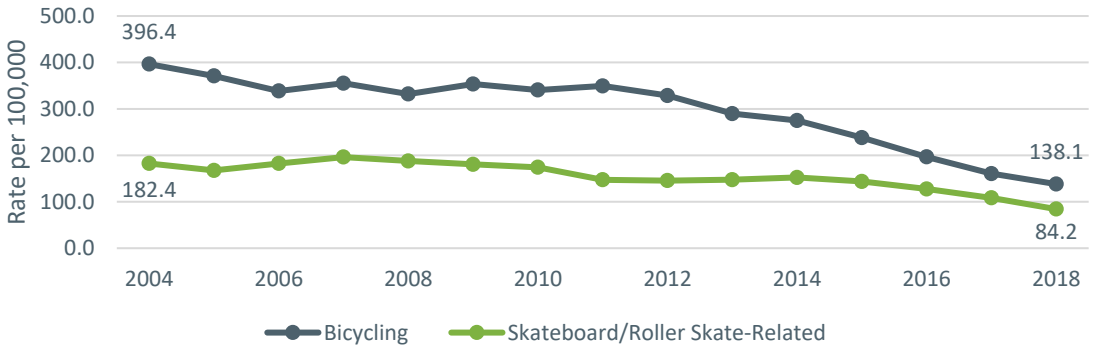
[a] For the purposes of this fact sheet, children include those ages 19 years and under.
[b] Statistics in this fact sheet only include injuries that were unintentional.

to 19-year-olds declined by only 14 percent (0.29 per 100,000 and 0.25 per 100,000, respectively).[1]

Nonfatal Injuries

- **Bicycling:** In 2018, it is estimated that there were more than 113,000 emergency rooms (ER) visits for nonfatal bicycling injuries among children, for a rate of 138 per 100,000. Of those, 94 percent were treated and released.[2]
    - The rate of ER visits for nonfatal bicycling injuries among children decreased by 65 percent between 2004-2018 (Figure 2).[2]

Figure 2. Rate of ER Visits for Nonfatal Bicycling and Skateboard/Roller Skate-Related Injuries, Ages 0-19, 2004-2018



- **Skateboard/Roller Skate-Related:** [c] In 2018, it is estimated that there were more than 42,000 nonfatal skateboard-related injuries and more than 26,500 nonfatal roller skate-related injuries among children that required an ER visit. This corresponded to estimated rates of 51.6 and 32.6 per 100,000, respectively.[3] The majority of both skateboard-related (94 percent) and roller skate-related (97 percent) nonfatal injuries were treated and released.[3]
    - The estimated rate of ER visits for nonfatal skateboard/roller skate-related injuries among children declined by more than half between 2004-2018 (Figure 2).[3]
    - In 2018, the most common parts of the body injured among nonfatal skateboard/roller skate-related ER visits were the upper extremities (51 percent), lower extremities (26 percent) and the head/neck (18 percent).[3]

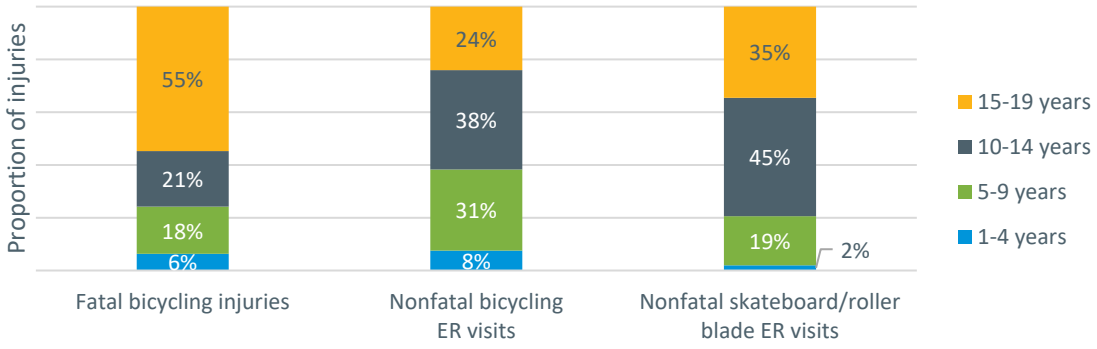
[c] For the purposes of this fact sheet, skateboard/roller skate-related injuries include injuries related to skateboards (product code 1333), in-line skates (product code 3297) and roller skates (product code 3216). Ice skates (product code 3255) are not included.

- In 2018, about 1 in 3 children who visited the ER for a nonfatal skateboard/roller skate-related injury were diagnosed with a fracture, and 14 percent suffered a concussion.[3]

Risk Factors

- **Age:** Among children 0-19 years of age, those ages 15-19 are at highest risk for fatal bicycling injury; in 2018, this age group accounted for only 26 percent of all 0- to 19-year-olds, but 55 percent of all fatal bicycling injuries (Figure 3).[1] When nonfatal injury is considered, 10- to 14-year-olds are at highest risk; in 2018, this age group accounted for nearly 28 percent of ER visits for nonfatal bicycling injuries[2] and 45 percent of ER visits for skateboard/roller skate-related injuries.[3]

Figure 3. Percent Distribution of Fatal Bicycling and Skateboard/Rollerskate-Related Injuries by Circumstance and Age Group, 2018



- **Gender:** Boys are more likely than girls to suffer both fatal and nonfatal injuries related to bicycling, skateboarding or roller skating; they accounted for 83 percent fatal bicycling injuries,[1] 73 percent of nonfatal bicycling injuries[2] and 59 percent of nonfatal skateboard/roller skate-related injuries.[3]
- **Month and Day:** Nearly 4 in 10 (39 percent) fatal bicycling injuries in 2018 occurred between the months of May and July.[1] Most fatalities in this age group occurred between Friday and Saturday (37 percent).[1]

Cost of Fatal and Nonfatal Bicycle Injuries[d]

- It is estimated that the combined medical care and work loss costs for fatal and nonfatal child bicycling injuries in the U.S. in 2017 totaled at least $2.4 billion.[4]
- About half (51 percent) of the combined medical care and work loss costs of bicycling injuries among children that were incurred in 2017 were the result of hospitalized injuries ($1.2 billion). Nonfatal injuries that were treated and released from emergency departments (ED) cost an estimated $933 million in combined costs and fatal injuries an estimated $218 million in combined costs.[4]

For more information or questions on the information contained in this factsheet, please contact the SKW Research Department via email at: **mchandler@safekids.org**

References

1. Centers for Disease Control and Prevention. WONDER Database. Selection criteria: Ages 0-19, ICD-10 codes V10-V19, select years 2004-2018. https://wonder.cdc.gov/controller/datarequest/D76;jsessionid=5B3E06845F4EAD14F0452B80FEEA1C10. Accessed March 24, 2020.
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3. U.S. Consumer Product Safety Commission. NEISS database. Selection criteria: Ages 0-19; product codes 1333, 3297 and 3216; select years 2004-2018. Population estimates for rate calculation obtained from Current Population Survey for years 2004-2018. https://www.cpsc.gov/cgibin/NEISSQuery/UserCriteria.aspx. Accessed March 25, 2020.
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[d] Cost of injury data calculated using most recent year of data available within the CDC's Web-based Injury Statistics Query and Reporting System (WISQARS) Cost of Injury Reports application, which includes both traffic-related and non-traffic-related pedal cyclist incidents that were serious enough to require an ED visit. Total combined medical and work loss costs are likely underestimated, as WISQARS cost estimates do not include ED treatment costs for injured children who were hospitalized.