SAFE KIDS WORLDWIDE

2022 National Parent Survey on Child Injury

2022

- Parents' Attitudes, Beliefs, and Behaviors Related to Key Causes of Unintentional Childhood Injury

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Executive Summary

- Unintentional injuries are the leading cause of death among children 1–9 years of age and the 5th leading cause among infants under 1 year of age.[1] Each year on average, unintentional injuries claim the lives of about 3,100 children under the age of 10, and an estimated 2.5 million more are seen in emergency rooms (ERs) for nonfatal unintentional injuries.[2,3] Importantly, most of these injuries are preventable.

Effective prevention requires a combination of laws, policies, environmental and product modifications, and awareness raising and educational efforts by government, the private sector, and civil society. However, parents and caregivers also play a key role and are often the first line of defense in keeping kids safe. Safe Kids Worldwide and its network of coalitions has contributed towards these efforts for 35 years by raising awareness and educating parents and caregivers about child injury hazards and preventive strategies and advocating with government and industry for changes that keep children safer.

In 2021, with the support of its founding sponsor Johnson & Johnson, Safe Kids established the National Parent Survey on Child Injury to begin to track key safety behaviors that would reduce the risk of injury among children under the age of 10 years. The intent is to repeat the survey with a nationally representative sample every few years to monitor parents' attitudes, beliefs, and behaviors related to key causes of unintentional childhood injury. The inaugural survey was fielded in February 2021 to 1,081 parents and explored safe behaviors across six causes of child injury.

A majority of parents surveyed are concerned about the risk of injury to their child (74 percent) but also believe that most childhood injuries are preventable (68 percent) and that they have at least some controll over that prevention (78 percent). When asked about safety behaviors specific to different causes of unintentional child injury, responses varied:

- Child passenger injuries: 88 percent of parents report that their child is always restrained when riding in the car with them.
- Pedestrian injuries: 89 percent of parents of children ages 2–9 report that they do not allow their child to cross the street without an adult.
- Bicycling injuries: 64 percent of parents whose child ages 2–9 ever rides a bike report that their child always wears a helmet when doing so.
- Drowning: 75 percent of parents who indicated their child can swim report that their child can float or tread water for at least a minute.
- Fire and burn injuries: 87 percent of parents with smoke alarms in their home have one inside or outside of every bedroom.
- Poisoning: 38 percent of parents keep medicine, laundry detergents, and/or household cleaners in cabinets, drawers, or closets that are at a level above their head only.

This report provides information on levels of safe behaviors, as well as demographic, attitudinal, and behavioral factors associated with those behaviors. The insights gained can help guide educational efforts and the results serve as a baseline against which future years of the survey can be compared.

Introduction

Between birth and 9 years of age, children rapidly progress through several stages of growth, developing cognitively, socially, emotionally, and physically. As they grow and begin to explore the world around them, they are exposed to an expanding number of injury hazards in the home, at play, and on the road. While bumps, scrapes, and bruises are an expected part of this journey, more serious or fatal injuries occur far too often, such as those that can result from car crashes, home fires, and poisonings.

An average of 3,096 children per year under the age of 10 die as a result of an unintentional injury in the U.S.A. – or about 8.5 injury deaths per day.[2] In addition to fatal injuries, it is estimated that annually about 96,000 more children are hospitalized and 2.4 million are seen in an emergency room (ER) for a nonfatal injury.[3] And beyond the available data, an unknown number are treated by their family doctor, at an urgent care clinic, or at home.

Research over time has demonstrated that most of these fatal and nonfatal injuries are preventable, but it takes a combination of efforts, including designing safe environments and products, setting and enforcing legislation, and educating parents, caregivers and children themselves so they are aware of the hazards and the evidence-informed solutions to address them. Prevention efforts over the last three decades in the U.S. have led to a more than 50 percent decrease in the rate of fatal unintentional injury among children under the age of 10, from 16.17 per 100,000 in 1988 to 7.67 per 100,000 in 2020 – or 2,781 fewer deaths per year.[2] Despite the substantial decrease over time, unintentional injury remains the leading cause of death among children 1–9 years of age and the 5th leading cause among infants under 1 year of age.[1] Further, the average annual economic cost of fatal and nonfatal injuries among children under age 10 in the U.S. is estimated at $268.3 billion.[4]

In 2021, with the support of its founding sponsor Johnson & Johnson, Safe Kids Worldwide established the National Parent Survey on Child Injury to begin to track key evidence-informed safety behaviors that reduce the risk of injury among children under the age of 10. The intent is to repeat the survey with a nationally representative sample every few years to monitor parents' attitudes, beliefs, and behaviors related to key causes of unintentional childhood injury.

Methodology

Safe Kids Worldwide commissioned a nationally representative online survey of 1,081 parents with at least one child under the age of 10 using NORC's online AmeriSpeak Probability-Based Panel. The panel provides a nationally representative sample of approximately 97% of the U.S. household population. Those excluded from the sample include people with P.O. Box only addresses, some addresses not listed in the USPS Delivery Sequence File, and some newly constructed dwellings. The inaugural survey was fielded from February 16–25, 2021 and included 99 closed-ended questions addressing unintentional child injury overall and across six areas of child safety: child passenger safety, pedestrian safety, bike safety, water safety, fire and burn safety, and poisoning safety. For parents with more than one child under the age of 10, a reference child was selected to ensure a mix of child ages. Survey weights provided in the dataset were used to ensure that the survey sample accurately reflects the overall population of interest.

For each area of safety, three or four evidence-informed behaviors were selected as key safety behaviors and used as outcome variables to identify significant predictors of 'safe' behavior using regression analysis. Predictor variables of interest included demographic, attitudinal, and behavioral variables, as well as the parents' perceived preventability of the respective injury type.

For child passenger safety, child poisoning, and home fire sections, how parents ranked those concerns related to their child's safety amongst a broader list of 9 safety concerns were also included as predictors. For parenting style, authoritative and authoritarian styles were grouped as "demanding," and permissive and uninvolved styles were grouped as "undemanding," per scientific research on parenting styles.[5] In addition, scores were created for two predictors, one for the total number of safe pedestrian behaviors parents had ever practiced with their child and the other for the number of swimming skills possessed by the child.

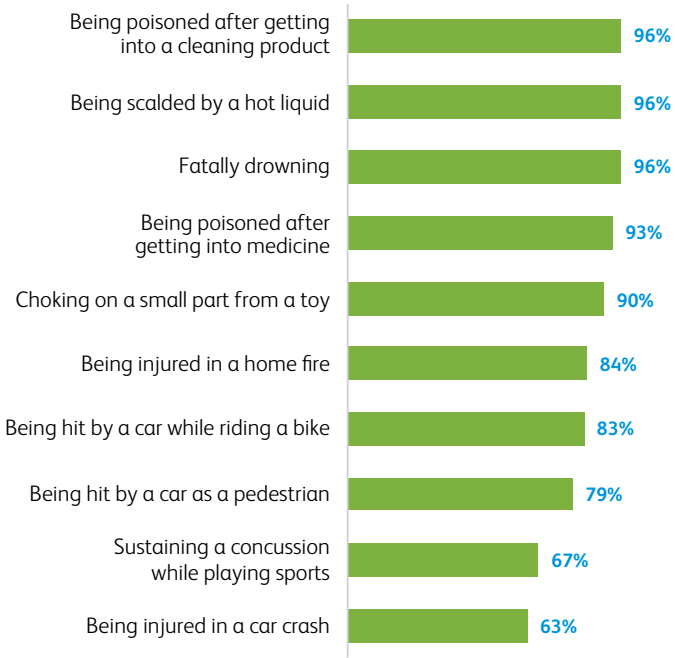
The frequency of each outcome in a given injury risk area was calculated. Bivariate associations were tested for each of the outcomes and predictor variables of interest using simple regression. Predictor variables of interest were tested for collinearity using a Pearson Correlation Matrix and were included in multivariate regression models if they had a bivariate association at the $p<0.25$ level. In addition, all multivariate regression models controlled for parent age, gender, race/ethnicity, education, household income, metro status, and child age and gender, as well as agreement with the statement "most childhood injuries are preventable." Interaction terms were also selected and tested in models based on domain knowledge.

For each injury risk area, the average annual number of children who die, are hospitalized, or treated and released from the ER are reported, as well as the average annual economic cost of injury, based on 3-year averages (2018–2020).[2–4] This is followed by the frequency for the behaviors of interest, followed by the statistically significant results of the multivariate analyses ($\alpha<0.05$), which are reported as odds ratios (OR) with 95% confidence intervals. Full models for each of the outcomes are available upon request.

Results

Most parents surveyed (74 percent) indicate that they are concerned about their child experiencing an injury and about the same number (78 percent) believe that they have some level of control when it comes to preventing those injuries. While this is encouraging, fewer parents (68 percent) agree that most childhood injuries are preventable, suggesting that while most parents recognize their ability to take action to reduce the risk of child injury, they perceive that some types of injuries are less within their control. In fact, when asked about various injury scenarios, the proportion of parents that believe they are preventable ranges from 63 percent for being in a car crash to 96 percent for being poisoned by a cleaning product (Figure 1), despite each injury type having proven strategies available that can greatly reduce a child's risk of injury. The following sections highlight the levels of safe behavior reported and associated predictors for child passenger safety, pedestrian safety, bicycling safety, water safety, fire and burn safety, and poisoning safety.

Figure 1. **Parent Perception of Preventability of Select Causes of Child Injury**



Child Passenger Safety

- An average of 173 children under the age of 10 die every year as child passengers in a motor vehicle crash (MVC), and for every child that dies, an estimated 29 are hospitalized and 320 are seen in the ER for nonfatal MVC injuries as occupants.[2,3] The average annual economic cost of fatal and nonfatal MVC injuries among occupants under the age of 10 in the U.S. is estimated at $9.5 billion.[4]

Advancements in technology, legislation, and public education have increased child passenger safety on America's roadways. One particularly effective strategy is the use of child restraint systems, which when used correctly have been shown to decrease fatal injuries by 71 percent among infants, 54 percent among toddlers, and 45 percent among children ages 4 to 8.[6,7] Parents and caregivers can reduce the risk of injury in the event of a MVC by ensuring their child is appropriately restrained in the back seat using a car seat or booster seat appropriate to the child's age, height and weight, and developmental stage for every ride. They can also model safe behavior by using their seat belt for every ride and by avoiding cell phone use and other distractions while driving.

We explored predictors for the following behaviors related to child passenger safety (CPS), specifically asking parents to think back to how they would have responded before the COVID-19 pandemic:

- How often their child is restrained when they drive them (ALWAYS)
- How often their child rides in the back seat when they drive them (ALWAYS)
- How often they wear a seatbelt when driving or riding in a car (ALWAYS)
- How often they text or check their mobile phone while driving (NEVER)

88% of parents report their **child is always restrained when riding in the car** with them.

Those who report their **child always rides in the back seat** were 5.9 times more likely to report the above.

5.9x

Most parents (88 percent) in the Safe Kids Worldwide National Parent Survey on Child Injury believe that child occupant injuries are preventable. Among a list of 9 topics of potential concern related to child safety, 52 percent of parents rank child occupant injuries as a top 3 concern. In terms of safe behaviors, 83 percent of parents who ever drive their child report that their child is always restrained, and 85 percent report that their child always rides in the back seat.

With respect to their own behavior, 68 percent of parents in our survey report that they always wear their seatbelt when driving or riding in a vehicle, and 41 percent indicate that they never text or check their cellphone while driving.

Hot Car Deaths

Children are also at risk of injury in a car due to vehicular heatstroke after being left in or gaining access to a vehicle and not being able to exit. There are on average 39 hot car deaths among children every year in the U.S.A., and more than 1,000 children have died in hot cars since 1990.[13]

When asked what amount of time they would ever leave their child alone in a car, 55 percent responded that there is no amount of time.

Parents are more likely to report that their child is always restrained while they are driving them if:

Their child always rides in the back seat when they are driving them

(5.9 times more likely than parents who report their child ever rides in the front seat)

They always wear a seatbelt when driving or riding in a car

(2.1 times more likely than parents who don't always wear a seatbelt when driving or riding in a car)

They have a demanding parent style

(2.4 times more likely than parents with a nondemanding parenting style)

They agree that most childhood injuries are preventable

(2.3 times more likely than parents who disagree)

They never text or check their mobile phone while driving

(2.1 times more likely than those who ever do)

Parents are less likely to report that their child is always restrained while they are driving them if:

They are fathers

(56 percent less likely than mothers)

They identify as Hispanic

(80 percent less likely than parents who identify as non-Hispanic White)

Their annual household income is <$30,000

(74 percent less likely than parents with a household income of $100,000 or more)

Their child is 7–9 years of age

(69 percent less likely than parents of children ages 0-3 years)

They drive a car only a few times a week

(73 percent less likely than parents who drive daily)

Parents are more likely to report that their child always rides in the back seat while they are driving them if:

They are 30–44 years of age

(3.1 times more likely than parents ages 18–29 years)

Their child is always restrained when they are driving them

(6.8 times more likely than parents reporting their child rides restrained less often)

They never text or check their mobile phone while driving

(2.6 times more likely than those who ever do)

Parents are less likely to report that their child always rides in the back seat while they are driving them if:

They identify as non-Hispanic Black

(77 percent less likely than parents who identify as non-Hispanic White)

Their annual household income is $30,000–<$60,000

(62 percent less likely than parents with a household income of $100,000 or more)

Their child is 7–9 years of age

(85 percent less likely than parents of children ages 0-3)

Parents are more likely to always wear their seatbelt when driving or riding in a car if:

They believe that child occupant injuries in car crashes are preventable

(2 times more likely than parents who don't believe)

They are married

(1.8 times more likely than non-married parents)

They are a mother of a boy

(1.8 times more likely than mothers of a girl)

Their child rides with them only a few times a week

(1.7 times more likely than parents whose child rides with them every day)

They never text or check their mobile phone while driving

(1.8 times more likely than those who ever do)

Parents are less likely to always wear their seatbelt when driving or riding in a car if:

Their child is 4–6 years of age

(57 percent less likely than parents of children ages 0–3 years)

They are concerned about child injury

(35 percent less likely than parents who are not concerned about child injury)

Parents are more likely to report that they never text or check their mobile phone while driving if:

They are 45 years of age or older

(2.5 times more likely than parents ages 18–29 years)

They identify as Other non-Hispanic*

(1.9 times more likely than parents who identify as non-Hispanic White)

Their annual household income is <$30,000

(2.2 times more likely than parents with a household income of $100,000 or more)

They agree that most childhood injuries are preventable

(1.8 times more likely than parents who disagree)

There is no amount of time they would leave their child alone in a car

(1.8 times more likely than parents indicating any amount of time)

They drive a car only a few times a week

(1.7 times more likely than parents who drive daily)

They always wear a seatbelt when driving or riding in a car

(1.7 times more likely than parents don't always wear a seatbelt when driving or riding in a car)

* Other non-Hispanic includes Asian, mixed race, and 'other' non-Hispanic race

Pedestrian Safety

The road environment in most communities is busier today than ever before and motor vehicles pose the greatest risk for young pedestrians, although collisions with other non-motorized vehicles can also result in injuries.

An average of 155 children under the age of 10 die every year as a result of pedestrian injury, with 64 percent of those involving motor vehicles.[2] It is estimated that for every child that dies of pedestrian injury, 11 are hospitalized and 31 are seen in the ER as a result of nonfatal pedestrian injury.[3] The average annual economic cost of fatal and nonfatal pedestrian injuries among children under age 10 in the U.S. is estimated at $5.3 billion.[4]

Young pedestrians are at particular risk as children under the age of 10 have yet to develop the cognitive and physical abilities needed to safely judge and react to traffic hazards.[8] As a result, it is recommended that they be actively supervised around traffic and not be allowed to cross the street without an adult until at least age 10. Children under age 10 are also at a key age to acquire knowledge and skills related to pedestrian safety, and parents and caregivers are well positioned to both teach and model safe pedestrian behavior.

We explored predictors for the following behaviors related to pedestrian safety:

- Whether child is ever allowed to cross the street without an adult (NEVER)
- Whether parent has ever talked to their child about how the rules of the road apply to pedestrians (YES)
- The number of pedestrian safety skills parent has practiced with their child (scale of 0–3 safety skills)

A majority of parents (79 percent) in our survey indicate they believe that a child being hit by a car and injured as a pedestrian is preventable. Parents whose child was ages 2–9 were asked about their child's pedestrian behaviors, and most (89 percent) report that their child is not allowed to cross the street without an adult. Nearly 9 in 10 parents (88 percent) report having ever talked to their child about how the rules of the road apply to pedestrians.

89% of parents
report that their child is **not allowed to cross the street** without an adult.

Those reporting an annual household **income of $30,000 – <$60,000** per year were 3.2 times more likely to report the above than those reporting $100,000+ per year.

3.2x

When asked whether they had ever practiced with their child 'how to safely cross the street at a street corner', 'how to safely cross in a crosswalk,' and 'how to safely cross using traffic signals,' 84 percent of parents had practiced at least one of these safety skills with their child and 67 percent had practiced all three.

Parents are more likely to report that their child is not allowed to cross the street without an adult if:

They identify as Other non-Hispanic*
(4.9 times more likely than parents who identify as non-Hispanic White)

Their annual household income is $30,000–<$60,000
(3.2 times more likely than parents with an annual household income of $100,000 or more)

Parents are less likely to report that their child is not allowed to cross the street without an adult if:

Their child is 6–7 or 8–9 years of age

(89 percent and 98 percent less likely, respectively, than parents of children ages 2–5)

They live in a non-metro area

(52 percent less likely than parents who live in a metro area)

They believe that other parents are more concerned about child injury than they are

(57 percent less likely than parents who believe other parents are less concerned)

* Other non-Hispanic includes Asian, mixed race, and 'other' non-Hispanic race

Parents are more likely to report that they never text or check their mobile phone while driving if:

They have practiced a higher number of pedestrian safety behaviors with their child

(5.5 times more likelv for each additional safety behavior practiced with their child compared to parents practicing no safety behaviors)

They live in a non-metro area

(3 times more likely than parents who live in metro areas)

They believe that child pedestrian injuries are preventable

(2.7 times more likely than parents who do not believe they are preventable)

Parents are more likely to have practiced a higher number of pedestrian safety skills with their child if:

They have ever talked to their child about how the rules of the road apply to pedestrians

(49.3 times more likely than parents who have not talked to their child)

They walk in their neighborhood at least a few times a week

(1.8 times more likely than parents who walk less often)

Parents are less likely to have practiced a higher number of pedestrian safety skills with their child if:

They have less than a post-grad study/degree and their child is a girl

(63 percent less likely among parents with a bachelor's degree whose child is a girl, 62 percent less likely among parents with some college* whose child is a girl, and 81 percent less likely among parents with a high school diploma or less whose child is a girl compared to parents with a post grad study/degree whose child is a girl)

They identify as non-Hispanic Black and live in a non-metro area

(63 percent less likely than parents who identify as non-Hispanic White and live in non-metro areas)

They believe that child pedestrian injuries are preventable

(51 percent less likely than parents who do not believe they are preventable)

Biking Safety

Learning to ride a bike is a great way for children to have fun, explore, and to develop a sense of freedom and independence. Cycling is also encouraged as a way for children to stay active and fit.[9] However, while bike riding has many benefits for children, being aware of the potential risks is important to keeping them safe.

An average of 18 children under the age of 10 die every year as a result of a cycling injury, and for every child that dies, an estimated 121 are hospitalized and 2,516 are seen in the ER as a result of nonfatal cycling injuries.[2,3] The average annual economic cost of fatal and nonfatal cycling injuries among children under 10 in the U.S. is estimated at $3.9 billion.[4]

Children under the age of 10 are at particular risk of fall-related injury while riding a bike because they have a higher center of gravity, are less physically developed, and have poorer balance and reaction speeds compared to older children and adults. Further, they often lack the physical coordination and judgement necessary to safely judge speed, traffic, and other risks.[8] Parents can reduce their child's risk of an injury by ensuring their child always wears a properly-fitted bike helmet when riding a bike, talking to them about how to bike safely near traffic, and by modeling safe bicycling behaviors themselves.

We explored predictors for the following behaviors related to cycling safety:

- How often child wore a helmet when riding a bike in the previous 30 days (ALWAYS)
- Whether parent has ever talked to their child about how the rules of the road apply to bikes (YES)
- How often parent wears a helmet when riding a bike (ALWAYS)

Among parents surveyed, 83 percent believe that a child being hit and injured by a car while riding a bike is preventable. Of the 690 parents with children ages 2–9 who report their child rides a bike with or without training wheels, 64 percent indicate that their child always wore a helmet while riding their bike in the previous 30 days, and 78 percent report they have ever talked to their child about how the rules of the road apply to bikes. Among the 566 parents reporting that they are bike riders themselves, 33 percent report that they always wear their helmet.

64% of parents who report that their child ages 2–9 years ever rides a bike report that their **child always wears a helmet** when doing so.

Those who reported that **they ever ride a bike themselves** were 2.1 times more likely to report the above than those who do not.

2.1x

Parents are more likely to report that their child always wears a helmet on a bike if:

They are fathers

(1.8 times more likely than mothers)

They are bike riders themselves

(2.1 times more likely than parents who don't ride a bike)

They believe they have control over preventing child injuries

(2.1 times more likely than parents who do not believe they have control)

They have ever talked to their child about how the rules of the road apply to bikes

(2.1 times more likely than parents who have not talked to their child)

Parents are less likely to report that their child always wears a helmet on a bike if:

They are 30–44 years of age

(50 percent less likely than parents ages 18–29)

They have more than one child

(48 percent less likely than parents with only one child)

They identify as non-Hispanic Black, Hispanic, or Other non-Hispanic race*

(60 percent, 62 percent, and 53 percent less likely, respectively, compared to parents who identify as non-Hispanic White)

They live in a non-metro area

(52 percent less likely than parents who live in a metro area)

* Other non-Hispanic includes Asian, mixed race, and 'other' non-Hispanic race

Parents are more likely to have ever talked to their child about how the rules of the road apply to bikes if:

Their child is 5–7 or 8–9 years of age

(3.5 times and 2 times more likely, respectively, than parents of children ages 2–5)

They ride a bike at least a few times a month

(1.9 times more likely than parents who ride a bike less often)

Their annual household income is $60,000–<$100,000

(2.6 times more likely than parents with an annual household income of $100,000 or more)

Their child rides a bike at least a few times a week

(1.8 times more likely than parents whose child rides a bike less often)

Their child always wears a helmet when riding a bike

(2.5 times more likely than parents whose child wears a helmet less often)

Parents are less likely to have ever talked to their child about how the rules of the road apply to bikes if:

They have a demanding parenting style

(45% less likely than parents with a non-demanding parenting style)

Parents are more likely to report that they themselves always wear a helmet when riding a bike if:

They are 30–44 years of age

(2.7 times more likely than parents ages 18–29)

They ride a bike at least a few times a month

(2.1 times more likely than parents who ride a bike less often)

Parents are less likely to report that they themselves always wear a helmet when riding a bike if:

They live in a metro area and have some college* or a bachelor's degree

(74 percent and 53 percent less likely, respectively, compared to parents who live in a metro area and have post-grad study/degree)

*Some college includes vocational, tech school, some undergrad but no degree, and associate degree.

Water Safety

Spending time near water is a popular pastime of families during the warmer months, whether in backyard swimming pools, lakes, ponds, rivers, the ocean, or on a boat. Although coordinated efforts by the water safety community have led to significant decreases in the number of drowning deaths over the past few decades, unintentional drowning remains a leading cause of death among children under the age of 10.[1]

An average of 576 children under the age of 10 die every year as a result of unintentional drowning, and for every child that dies, an estimated 3 are hospitalized and 5 are seen in the ER as a result of nonfatal drowning.[2,3] The average annual economic cost of fatal and nonfatal drownings among children under 10 years in the U.S. is estimated at $11.2 billion.[4]

Being aware of the risks and taking a few precautions can prevent these tragedies from occurring. These precautions include parents ensuring that their child has had swimming lessons and possesses water survival skills, always appointing a water watcher (i.e., a designated adult to supervise children who are in or near water), knowing basic water rescue skills and being child CPR certified, and ensuring that children wear a properly-fitted U.S. Coast Guard-approved life jacket when on a boat. Parents can also mitigate their own risk of drowning and model safe behavior to children by always wearing a properly-fitted U.S. Coast Guard-approved life jacket themselves. Moreover, in the event of a water emergency, they are more likely to be able to provide life-saving measures for a child if they are wearing a life jacket themselves.

We explored predictors for the following safety behaviors related to water safety:

- Whether child knows how to float or tread water for at least a minute (YES)
- The number of water survival swimming skills the child can perform (scale of 0–4 safety skills)
- Whether parent is certified in child CPR (YES)
- How often parent assigns a water watcher when with their child at a pool or open water with other families (ALWAYS)

75% of parents

who indicated their child could swim reported that their **child could float or tread water for at least a minute.**

Those **identifying as Hispanic** were 68 percent less likely to report the above than those identifying as non-Hispanic White.

68%

60% of parents

who spend time with their child near pools or open water with other families **always appoint a water watcher.**

Those who **believe fatal drownings are preventable** were 4 times more likely to report the above than parents who do not.

4x

The vast majority (96 percent) of parents surveyed believe that fatal child drownings are preventable. Yet, only about half (51 percent) indicate that their child knows how to swim. Among those who reported their child could swim, 78 percent were confident in their child's swimming ability, and most report that their child can get out of the water on their own (89 percent), jump into the water and come back to the surface (88 percent), float or tread water for at least a minute (75 percent), and swim at least 25 yards (51 percent). Only 35 percent of parents are certified in child CPR.

Sixty percent of parents whose child is ever with them when swimming report that they always appoint a water watcher when they are with other families near pools or open water. Concerningly, only 56 percent of parents whose child did not know how to swim report that they always appoint a water watcher, compared to 63 percent among parents who reported their child did know how to swim.

Parents are more likely to report that their child knows how to float or tread water for at least a minute if:

Their child is 4–6 years or 7–9 years of age

(3.4 and 5.4 times more likely, respectively, than parents of children ages 0–3 years)

Parents were less likely to report that their child knows how to float or tread water for at least a minute if:

They identify as Hispanic

(68% less likely than parents who identify as non-Hispanic White)

Parents are more likely to report that their child had a higher number of water survival swimming skills if:

Their child is 7–9 years of age

(4.4 times more likely than parents of children ages 0–3)

Parents are more likely to report that their child had a higher number of water survival swimming skills if:

Their annual household income is between $30,000 and <$100,000

(72 percent less likely among parents with an annual household income of $30,000–<$60,000 and 60 percent less likely among parents reporting $60,000–$<100,000 compared to those reporting $100,000 or more)

They are fathers

(46 percent less likely than if they are mothers)

Parents are more likely to report that they were certified in child CPR if:

Their annual household income is $100,000 or more and they live in a non-metro area

(3.4 times more likely than parents with the same household income who live in metro areas)

Parents are less likely to report that they were certified in child CPR if:

They identify as Hispanic

(43% less likely than parents who identify as non-Hispanic White)

They have a high school diploma or less

(59% less likely than parents that have post-grad study/degree)

Parents are more likely to report that they always assign a water watcher when at a pool or open water with other families if:

They believe fatal drownings are preventable

(4 times more likely than parents who do not believe)

They have a bachelor's degree and their child is a boy

(2.4 times more likely than parents with post-grad study/ degree whose child is a boy)

Had a post-graduate study/degree and their child is a boy

(2.3 times more likely than parents with the same level of education whose child is a girl)

They are child CPR-certified

(1.7 times more likely than parents who are not child CPR-certified)

They have a demanding parenting style

(1.6 times more likely than parents with a non-demanding parenting style)

Parents are less likely to report that they always assign a water watcher when at a pool or open water with other families if:

They identify as non-Hispanic Black

(66% less likely than parents who identify as non-Hispanic White)

*Some college includes vocational, tech school, some undergrad but no degree, and associate degree.

Fire and Burn Safety

Although burn injuries among children can result from contact with flames, hot objects, and hot substances, home fires account for about 9 in 10 fire and burn-related deaths among children under age 10.[2] Home fires can start and spread quickly, often leaving families with only minutes to escape.

An average of 179 children under the age of 10 die every year as a result of unintentional fire and burn injuries, and for every child that dies, an estimated 36 are hospitalized and 250 are seen in the ER.[2,3] The average annual economic cost of fatal and nonfatal fire and burn injuries among children under age 10 in the U.S. is estimated at $4.8 billion.[4]

Proven steps to significantly reduce the risk of death due to a home fire include having working smoke alarms on every level of the home, inside bedrooms and outside sleeping areas, testing smoke alarms every month, and having a fire escape plan in place that is practiced at least twice a year.

Scalds are another common type of burn injuries among children that result from contact with hot liquids or steam. Nearly half (47 percent) of scald injuries among young children result from hot water.[10] Young children are at particularly greater risk of scald injury due to have thinner skin, which causes them to burn more easily and at lower temperatures than older children and adults.[11] Parents can reduce their child's risk of scald injury in the bathroom by setting water heaters in the home to 120°F and by testing the water temperature with their wrist or elbow before placing young children in the water during bath time.

We explored predictors for three behaviors related to fire and burn safety:

- Whether parent has smoke alarms in or outside of every bedroom (YES)
- Whether parent has a fire escape plan in place (YES)
- Whether parents who claim to know what temperature is safe for bathroom water are able to identify a temperature within the safe recommended range of 120°F or lower (YES)

Among all parents surveyed, 84 percent believe that a child being injured in home fire is preventable. Sixty-two percent indicate that they have a home fire escape plan in place, and among those, 42 percent indicate they have practiced it in the previous 6 months. However, 35 percent of parents with a plan indicated it has been more than a year since they practiced it, despite a recommendation to practice at least twice a year.[12]

87% of parents who have smoke alarms in their home **have one in or outside of every bedroom.**

Those who **have a home fire escape** plan in place were 1.8 times more likely to report the above than those who do not.

1.8x

A vast majority of parents (94 percent) report having smoke alarms in their home. Of those, 87 percent report that they have a smoke alarm in or outside of every bedroom in their home. However, only 24 percent indicate they have tested their smoke alarms within the previous month, despite expert recommendations to test them monthly.

Among parents surveyed, 96 percent believed that a child being scalded by a hot liquid is preventable. Despite this, only 28 percent have ever tested the hot water temperature in their bathrooms. When asked what temperature they think is too hot for bathroom water, 51 percent did not know. Of those who did indicate a temperature, most (83 percent) suggested a temperature within the recommended safe range of 120°F or lower.

Parents are more likely to report that they have smoke alarms in or outside of every bedroom if:

They have a home fire escape plan in place

(1.8 times more likely than parents who do not have a fire escape plan)

Parents are less likely to report that they have smoke alarms in or outside of every bedroom if:

They are ages 30–44 or 45 years or older and disagree that childhood injuries are preventable

(83 percent and 91 percent less likely, respectively, compared to parents ages 18-29 years who also disagree that childhood injuries are preventable)

They live in a mobile home

(80 percent less likely compared to parents who live in an apartment building)

Parents are more likely to report that they have a fire escape plan in place if:

Their annual household income is <$30,000 or $60,000–<$100,000

(2.1 times and 1.7 times more likely, respectively, compared to parents with an annual household income of $100,000 or more)

Parents are less likely to report that they have a fire escape plan in place if:

They identify as non-Hispanic Black or Hispanic*

(53 percent and 59 percent less likely, respectively, than parents who identify as non-Hispanic White)

* Other non-Hispanic includes Asian, mixed race, and 'other' non-Hispanic race

Parents are less likely to be able to identify a safe bathroom water temperature if:

They are 30 years of age or older

(97 percent less likely for parents ages 30–44 years and 96 percent less likely for parents ages 45 years or older, compared to parents ages 18–29 years)

They live in a mobile home or single-family house

(92 percent and 76 percent less likely, respectively, compared to parents who live in an apartment building)

Poisoning Safety

As babies grow and become increasingly mobile, their natural curiosity increases their risk of ingesting objects or substances in the environment that could result in poisoning. The risk is highest among children between the ages of 1 and 2 and the most common substances resulting in poisoning are medicine, cleaning products, and personal care products.

On average, 53 children under the age of 10 die every year as a result of unintentional poisoning, and for every child that dies an estimated 127 are hospitalized and 691 are seen in the ER.[2,3] The average economic cost of fatal and nonfatal unintentional poisoning among children under age 10 in the U.S. is estimated at $1.8 billion.[4]

Unintentional child poisonings are more common among very young children. Factors contributing to a child's risk of poisoning include inadequate supervision, unsafe storage of medicine, household products including cleaning, laundry and personal care products, and non-child-resistant product packaging. To prevent these events from happening, experts recommend keeping medicines and household products out of children's reach and sight and in their original containers, even when used every day.

Carbon monoxide (CO) is another common source of poisoning within the home, especially among young children, who process CO differently than adults and therefore may experience more severe side effects. Installing CO alarms installed and testing them regularly can prevent exposure.

In addition to safe storage and CO alarms, having the Poison Help number handy (i.e., saved in their phone and/or displayed visually in their home) and knowing when to use it is an important prevention strategy in the event of an exposure. Although not a replacement for emergency medical care, having free, expert medical advice 24 hours a day to poison specialists can advise parents on whether emergency medical treatment is needed.

We explored predictors for the following behaviors related to poisoning safety:

- The height of cabinets, drawers, and/or closets in which parent stores their medicine, cleaning, and laundry products (ABOVE HEAD ONLY)
- Whether parent has CO alarms installed in their home (YES)
- Whether parent has the Poison Help number handy (YES)

38% of parents

indicate that they keep medicine, cleaning products and/or laundry detergents in cabinets, drawers and closet locations that are generally **above their head only.**

Those whose **child was 7-9 years** were 44 percent less likely to report the above than those whose child was 0-3 years.

44%

The vast majority of parents surveyed believe that child poisonings are preventable (93 percent for medicine poisoning and 96 percent for poisoning from household cleaners). Among a list of 9 topics of concern related to child injury, 30 percent of parents ranked child poisoning as a top 3 concern.

We also asked parents to indicate where they store medicine, household cleaning products, and laundry products in their home. Only 38 percent report that they generally keep these products in cabinets, drawers, and/or closets at a height above their head, while 30 percent report a mix of above and below the head, and 32 percent report that those locations are generally below the head only

Seventy percent of parents indicate they have CO alarms installed in their home. Less than half of parents (43 percent) report that they have the Poison Help number saved in their phone or displayed in a visual location in their home.

Parents are more likely to report that the cabinets, drawers, and/or closets where they keep poisons are in locations only above their head if:

They identify as non-Hispanic Black

(2.0 times more likely than parents who identify as non-Hispanic White)

They have the Poison Help number handy

(1.5 times more likely than parents who don't have the number handy)

They have a high school diploma or less or some college*

(2.5 times and 1.9 times more likely, respectively, compared to parents with postgrad study/degree)

They are unemployed

(1.6 times more likely than parents who were employed)

Parents are less likely to report that the cabinets, drawers, and/or closets where they keep poisons are in locations only above their head if:

Their child is 7–9 years of age

(44 percent less likely than parents of children ages 0–3 years)

*Some college includes vocational, tech school, some undergrad but no degree, and associate degree.

Parents are more likely to report that they have CO alarms installed in their home if:

They agree that most childhood injuries are preventable

(1.6 times more likely than parents who disagree)

Parents are less likely to report that they have CO alarms installed in their home if:

They identify as Hispanic or Other non-Hispanic race*

(46 percent and 47 percent less likely, respectively, than parents who identify as non-Hispanic White)

Their annual household income is <$30,000 or $30,000–<$60,000

(61 percent and 58 percent less likely, respectively, than parents reporting $100,000 or more)

They have a high school diploma or less

(59 percent less likely than parents with a post-grad study/degree)

They have more than one child

(41 percent less likely than parents with only one child)

* Other non-Hispanic includes Asian, mixed race, and 'other' non-Hispanic race

Parents are more likely to have the Poison Help number handy if:

They are fathers with a child ages 0–3

(2.2 times more likely than mothers of children the same age)

They have some college* or a bachelor's degree

(1.7 times and 1.8 times more likely, respectively, than parents with post-grad study/degree)

Their child is a boy

(1.7 times more likely than parents of girls)

They are unemployed

(1.6 times more likely than parents who are employed)

Parents are less likely to have the Poison Help number handy if:

They are 30 years of age or older

(45 percent less likely among parents ages 30–44 years and 58 percent less likely among parents ages 45 years or older, compared to parents ages 18–29 years).

They believe that other parents are more concerned about child injury than they are

(39 percent less likely than those who believe other parents are less concerned)

*Some college includes vocational, tech school, some undergrad but no degree, and associate degree.

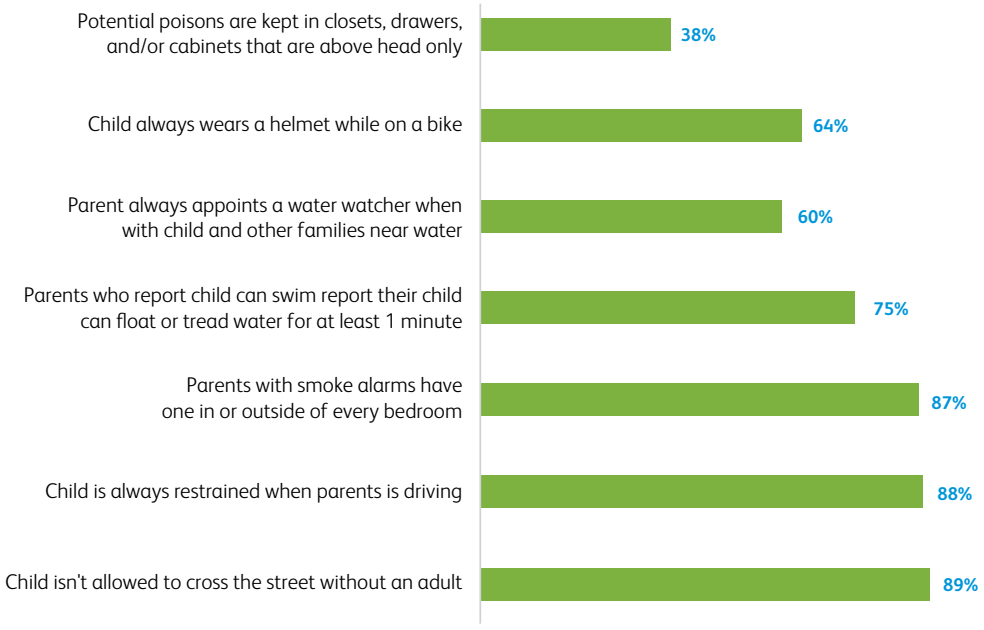
Implications of Findings

The significant decreases in unintentional child injury deaths over the past few decades signal that prevention efforts are having a positive impact. Still, far too many children under the age of 10 continue to be injured in ways that could have been prevented. Safe Kids Worldwide commissioned the National Parent Survey on Child Injury in 2021 to better understand how parents of children under the age of 10 are thinking about child injury and the current steps they are taking to keep their child safe.

Although a large proportion of parents surveyed reported doing some of the key safety behaviors, the proportion across the behaviors varied substantially (Figure 2). Importantly, survey results indicate that there is room for improvement across all safety behaviors, and, for some, a large opportunity to increase efforts. Moreover, the regression models identified specific groups that may benefit from further consideration and targeted outreach. For example, parents living in non-metro areas may benefit from targeted educational outreach around the risks to children under age 10 crossing the street without an adult and the importance of always wearing a helmet while riding a bike. While educational efforts around child passenger safety with lower-income parents may benefit from a focus on the importance of restraining children under age 13 in the back seat of a car. Given the multiple significant predictors of each of the behaviors explored, review of the models may provide additional insights to inform targeting of audiences and messages.

This report presents the results of the first iteration of the SKW Parent Behavior Report and provides an overview of parent behavior and associated factors impacting those behaviors related to six key causes of child unintentional injury. It is anticipated that the survey will be repeated every few years to allow for monitoring of national estimates of parent behaviors, attitudes, and beliefs. As such, the plan is to use this first survey as a baseline against which future years of the survey can be compared. However, that may change for several reasons. It is not yet clear to what extent changes in parent behavior and child injury during COVID-19 may have impacted the baseline survey results. The survey was fielded almost a year into the pandemic, but changing circumstances across the country may have differentially impacted parents. Given the online survey was comprised of closed-ended questions, it limited the opportunity to explore COVID-related insights. In addition, the analysis of baseline data identified several survey questions that we may need to modify or replace in the next iteration. For example, whether a child was correctly restrained was not ascertained in this survey. Future waves could include a child's height and weight in addition to their age, to allow a rough assessment of whether the child was in the correct restraint. Additionally, questions related to child and adult lifejacket/PFD use on boats could include whether those devices are U.S. Coast Guard-approved, which was not asked in the baseline survey.

Figure 2. **Responses to Key Safety Behaviors**



There are two other general limitations that need to be considered when interpreting survey results. First, findings around ages of children need to be interpreted with the understanding that while parents of multiple children were asked to refer to the reference child for their survey, it is possible that some responses were not directly related to that child. For example, a parent of a child ages 8–9 reporting that they always appoint a water watcher when at a pool with other families may have done so due to the presence of a younger sibling. Second, as with all surveys capturing self-reported behavior, interpretation of the results need to be considered in light of potential social desirability bias in that parents may have been inclined to report socially desirable safety behaviors, attitudes, and beliefs.

Despite the challenges of fielding the survey during the COVID-19 pandemic, the results provide a snapshot of parent behavior in 2021 and suggest areas where future research would be beneficial. First, the wide range of perceived preventability across injury types explored suggests that qualitative research into what drives perceptions of preventability among parents across those risk areas may be useful. Water safety efforts might also benefit from research into factors influencing why a parent may or may not assign a water watcher for children when with other families near water. The identification of predictors of safe behavior also provides insights into audiences of current messaging and suggests subgroups where it may be useful to assess whether current educational efforts are reaching them. Lastly, because attitudes, beliefs, and perceptions related to all unintentional child injury risk areas may have changed since the onset of the COVID-19 pandemic, such as shifts in safe storage behaviors of potentially poisonous products in the home, research to assess those changes would be valuable in terms of identifying the need for any adjustments in safety messaging and communications frames currently used.

References

1. CDC, National Center for Injury Prevention and Control. WISQARS Leading Causes of Death Reports, 1981–2020. https://wisqars.cdc.gov/fatal-leading. Published 2022. Accessed March 15, 2022.
2. CDC, National Center for Injury Prevention and Control. WISQARS Fatal Injury Reports, National, Regional and State, 1981–2020. https://webappa.cdc.gov/sasweb/ncipc/mortrate.html. Published 2022. Accessed March 15, 2022.
3. CDC, National Center for Injury Prevention and Control. WISQARS Nonfatal Injury Reports, 2000–2020. https://wisqars.cdc.gov/nonfatal-reports. Published 2022. Accessed March 15, 2022.
4. CDC, National Center for Injury Prevention and Control. WISQARS Cost of Injury. https://wisqars.cdc.gov/cost/. Published 2022.
5. Maccoby EE, Martin JA. Socialization in the context of the family: parent-child interaction. In: Manual of Child Psychology. Vol 4. New York: John Wiley and Sons; 1983:1-101.
6. Arbogast KB, Jermakian JS, Kallan MJ, Durbin DR. Effectiveness of belt positioning booster seats: An updated assessment. Pediatrics. 2009. doi:10.1542/peds.2009-0908
7. Kahane CJ. Lives Saved by Vehicle Safety Technologies and Associated Federal Motor Vehicle Safety Standards, 1960 to 2012 - Passenger Cars and LTVs. Washington, D.C.: National Highway Traffic Safety Administration, 2015.
8. Manning C, Aagten-Murphy D, Pellicano E. The development of speed discrimination abilities. Vision Res. 2012;70:27-33. doi:10.1016/j.visres.2012.08.004
9. Daniels SR, Hassink SG, Abrams SA, et al. The Role of the Pediatrician in Primary Prevention of Obesity. Pediatrics. 2015;136(1):e275-e292. doi:10.1542/peds.2015-1558
10. Consumer Product Safety Commission. National Electronic Injury Surveillance System 2002-2021. Search criteria were years 2018-2020, scald injuries and product code 1934, ages 0-9 years. https://www.cpsc.gov/cgibin/NEISSQuery/home.aspx. Published 2022.
11. Abraham JP, Plourde BD, Vallez LJ, et al. Skin Burns. In: Theory and Applications of Heat Transfer in Humans. Chichester, UK: John Wiley & Sons Ltd; 2018:723-739. doi:10.1002/9781119127420.ch33
12. National Fire Protection Association. How to make a home fire escape plan. https://www.nfpa.org/Public-Education/Staying-safe/Preparedness/Escape-planning#:~:text=Key to your family's safety,be used safely by everyone. Published 2022. Accessed February 23, 2022.
13. KidsAndCars.org. Heatstroke. https://www.kidsandcars.org/how-kids-get-hurt/heat-stroke/. Published 2022. Accessed February 22, 2022.

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