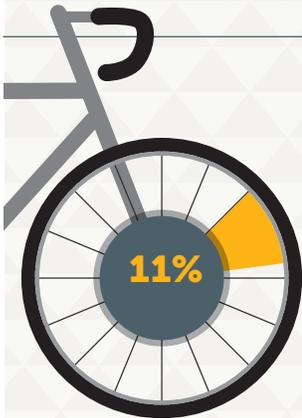




Kids and Wheeled Sports Safety

Every hour, nearly 50 children visit emergency departments with an injury related to **bikes, scooters, skates or skateboards.**



Serious head injuries (concussions, internal injuries and fractures)

made up 11% of ED visits across the four wheeled sports.

Fractures to the shoulder, arm, elbow, wrist or hand were the most frequent diagnoses for hospital admissions.



19% of hospital admissions for **scooter injuries** to children in 2015 were because of a **head injury.**



Almost 40% of parents of children ages 5-14 years indicated that their **child did not always wear a helmet** when participating in one of the four wheeled sports.



Among parents who say they **always wear a helmet** when riding a bike, 86% say their child also does. However, among parents who say they **never wear a helmet**, only 38% say their child always does.



Reasons why parents report their **children do not always wear a helmet:**

47% Parents think area is safe/View child as experienced/Don't see helmets as necessary.

27% Child finds helmet uncomfortable.

24% Other kids don't wear one.

22% Child thinks helmets aren't cool.



Why no helmet?



Top Tips to Keep Kids Safe on Wheels

- All riders should wear a properly-fitted helmet. It is the best way to prevent head injuries and death.
- Ensuring correct fit of a helmet can increase comfort and use.
- Knee pads and elbow pads are recommended for scooters, skaters and skateboarders. Wrist guards are also recommended for skaters and skateboarders.

**SAFE
KIDS
WORLDWIDE™**

Executive Summary

For generations, when the weather gets warm, kids are ready to roll on wheels. From bikes to skateboards, from roller skates to scooters, these wheeled sports have both evolved and remained popular throughout the years. Besides serving as a way for children to play and to get around town, they also are increasingly being encouraged as a way for children to stay active and fit.¹ While the wheeled sports have remained popular, safety efforts have grown by leaps and bounds – but every day, children are still getting injured in ways that could have been prevented.

Children 14 years and under, and particularly those under age 10, are at greater risk for a fall when on wheels because they have a higher center of gravity, are less developed physically and have poor balance compared to adults. They also have slower reactions and are less coordinated than adults, leading to being less able to break their falls.²⁻³ Finally, children typically overestimate their skills and abilities and are less experienced in judging speed, traffic and other risks.^{2,4-5}

Nearly 50 children an hour are taken to an emergency department with an injury related to the four wheeled sports we studied. And while bicycling injuries have been declining, other wheeled sports, such as scootering, have seen an increase in injuries. As a result, it is not a matter of “if” children will fall, but rather how to protect them from serious injury when they do. Helmets and other protective gear are proven ways to decrease both the likelihood and severity of an injury.

Safe Kids Worldwide undertook an in-depth analysis of current patterns of injury and parents’ beliefs and behaviors related to keeping children safe during four wheeled sports: bicycling, scootering, skating and skateboarding. The study was made possible with support from Nationwide’s Make Safe Happen program, which is dedicated to reducing child injuries in and around the home.

We found that:

- While helmet use has increased over the past few decades, nearly 4 in 10 parents of children ages 5-14 years say their child still does not always wear a helmet while riding;
- Younger children were reported as being more likely to wear their helmet than older children, at 67 percent of 5-9 year olds and 61 percent of 10-14 year olds;
- Helmets were reported as the piece of safety equipment most likely to be worn by all children; and
- Parent helmet use was strongly associated with increased helmet use by children while bicycling – among parents who say they always wear a helmet while riding a bike, 86 percent say their children do the same, but among parents who say they never wear a helmet, only 38 percent report that their children always wear one themselves.

These results suggest a need to ensure parents understand the very real risk of injury during wheeled sports and the mediating effect that protective gear can have. The survey findings suggest that some parents may be underestimating the risk because they view their child as an experienced rider or believe that the area where their child participates in the activity is not dangerous. Yet even experienced riders can and do fall, and even though many of the locations where children ride or roll do not involve motor vehicles, they still involve hard surfaces that can cause injury when the head strikes the ground. Parents may not realize that serious and even fatal injuries also occur away from traffic, and that those injuries are most often head injuries.

To stay safe while riding, parents and children should:

- Wear a properly fitted helmet for every ride – they are the best way to prevent head injuries and death in the event of a crash.
- Ride in safe locations like sidewalks, bike paths or bike lanes whenever possible.
- Follow the rules of the road.
- Check all equipment at the start or end of every season.
- Ride with your children until you are comfortable with them riding on their own.



Kids Safety and Wheeled Sports

Bicycling and other wheeled sports, including skateboarding, roller and inline skating and non-motorized scooters, are all great ways to keep children active and decrease the risk of obesity.⁶ Yet, like most good things, we need to be attentive to the risks involved and identify ways to minimize them.

To better understand the situation, Safe Kids Worldwide undertook an in-depth analysis of current patterns of injury for children bicycling, riding non-motorized scooters (hereafter referred to as scootering), inline or roller skating (hereafter referred to as skating) and skateboarding; the use of helmets and other protective gear; and the beliefs and behaviors of parents related to keeping children safe while participating in these sports.

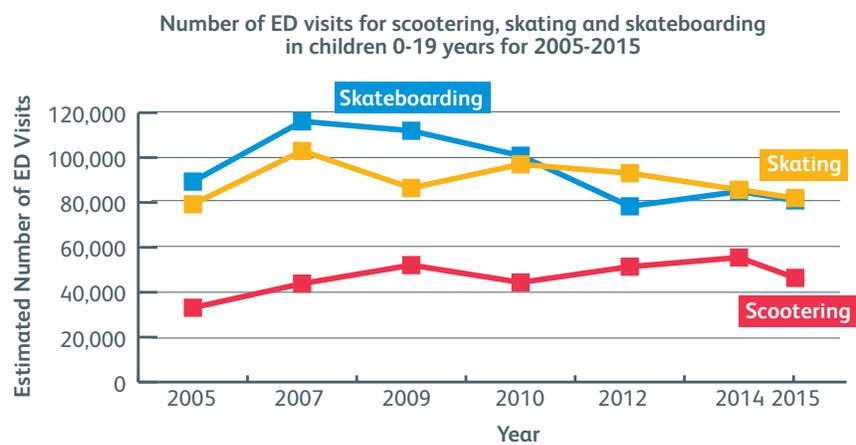
National injury data for children 0 to 19 years of age were analyzed and a nationwide online survey of 1,600 parents of 5-14 year olds was conducted. This study was made possible with support from Nationwide's Make Safe Happen program, which is dedicated to reducing child injuries in and around the home.

Injury by Wheeled Sport

In the United States (U.S.) in 2015 it is estimated that over 426,000 children ages 0-19 visited the emergency department (ED) for injuries associated with these four wheeled sports. That's 49 children an hour. While this represents a 15 percent decrease from 10 years ago, it remains an unacceptable number for what are frequently preventable injuries.⁷

In the U.S. between 2005 and 2015, estimates of the annual number of ED visits among children ages 0-19 years for injuries associated with the four different wheeled sports showed a decrease for bicycling (28 percent) and skateboarding (8 percent). However, that same time period saw a large increase in the number of visits for scootering (40 percent) and a smaller increase for skating-related injuries (4 percent) (Figures 1 and 2).⁷ It is not known what proportion of the change in ED visits is related to participation rates.

Figure 1. ED visits for scootering are on the rise⁷

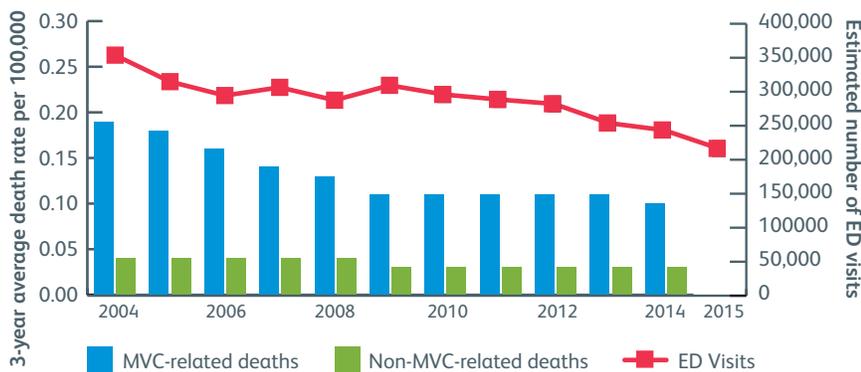


i Hoverboards, onewheels, ATVs and other powered wheeled activities were outside the scope of this report.

In 2015, bicycling injuries made up about half of the over 426,000 ED visits related to the four wheeled sports among children 0-19 years old. This was followed in frequency by skateboarding and skating at about 19 percent each and scootering at 11 percent. About 3 percent of ED visits resulted in a hospital admission, with children injured while bicycling and skateboarding most likely to be hospitalized.⁷

Bicycling is the only one of the four wheeled sports for which fatality data are readily available. In the past 10 years there has been a 47 percent rate reduction in bicycle-motor vehicle crash (MVC) related deaths and a 25 percent rate reduction in bicycle-non-MVC-related deaths for children 19 years and under (Figure 2).⁸

Figure 2. Deaths and ED visits for bicycling are on the decline⁷⁻⁸



Among the 1,600 parents surveyed, we found that almost 2 in 5 reported their child had been injured while participating in one of the four wheeled sports. Parents whose children skateboard and skate were both most likely to report any injury, as well as an injury serious enough to require a visit to the doctor or ED.

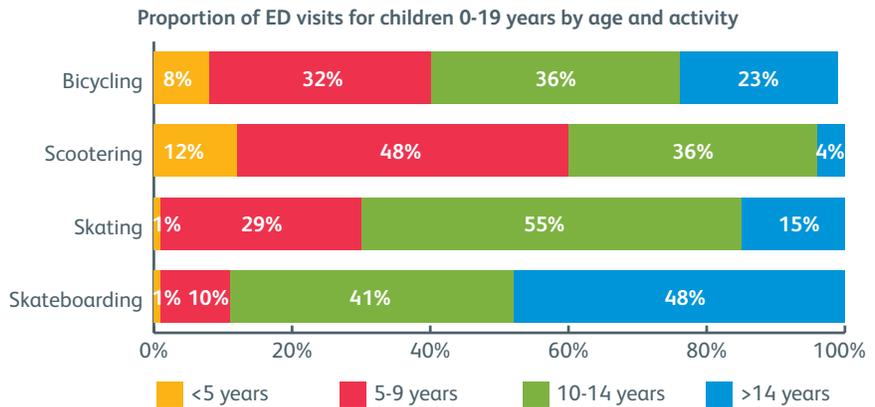
Who is Getting Injured?

In 2015, children ages 5-14 years made up the majority of the ED visits among 0-19 year olds for three of the four wheeled sports we examined (Figure 3).⁷ A similar pattern was seen for hospitalizations, with the average age of admitted cases ranging from 7.8 years for scootering to 14.6 years for skateboarding.



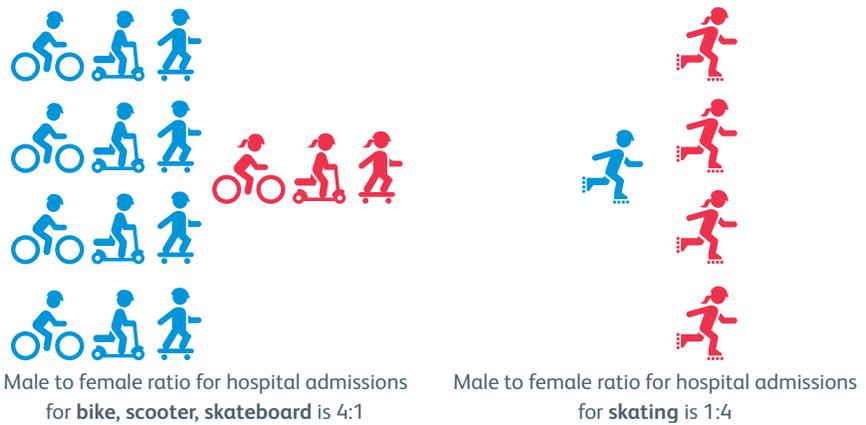


Figure 3. Kids ages 5-14 make up the majority of child ED visits for the four wheeled sports⁷



Boys were more likely than girls to visit the ED and were 4 times more likely to be admitted to the hospital for injuries related to riding a bike, scooter or skateboard. However, girls were about 4 times more likely to be admitted to the hospital for injuries related to skating than boys of the same age (Figure 4).⁷

Figure 4. Boys are more likely to be hospitalized than girls for all wheeled sports except skating

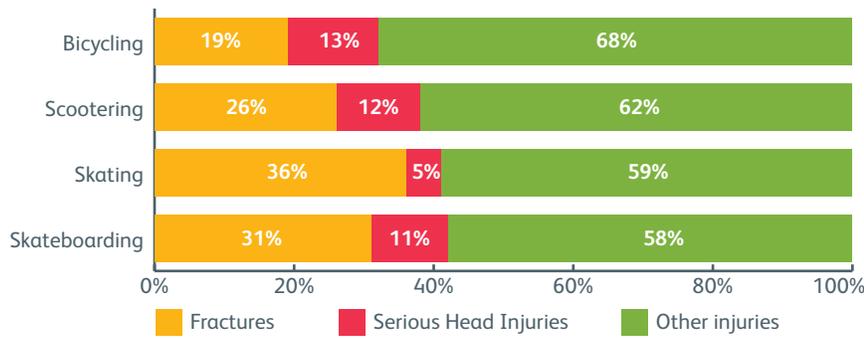


What Injuries Are Occurring?

Serious head injuries (defined as concussions, internal head injuries and head fractures) made up 11 percent of ED visits across the four wheeled sports, although the proportion varied by activity (Figure 5).⁷ Fractures were the most frequent injury diagnosis for all activities except bicycling, making up 25 percent of ED visits across the four wheeled sports.

For hospital admissions, the most frequent diagnosis for all four wheeled sports was a fracture, particularly to the shoulder, arm, elbow, wrist or hand. Head injuries were the second most frequent diagnosis ranging from 1 in 10 hospitalizations for skating to nearly 4 in 10 hospitalizations for both biking and skateboarding.⁷

Figure 5. Head injuries made up more than 1 in 10 of ED visits for all wheeled sports except skating⁷

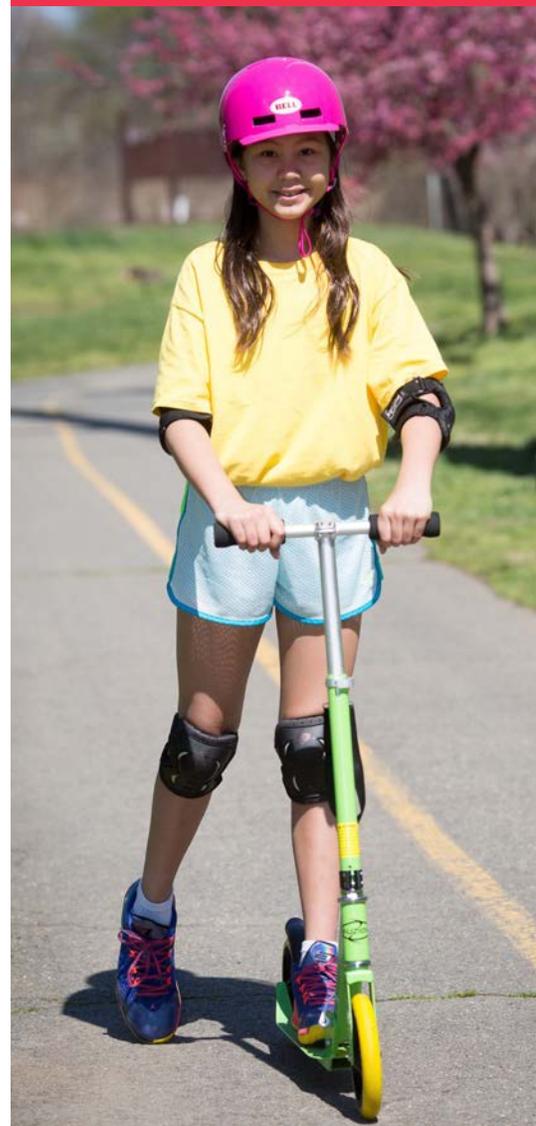
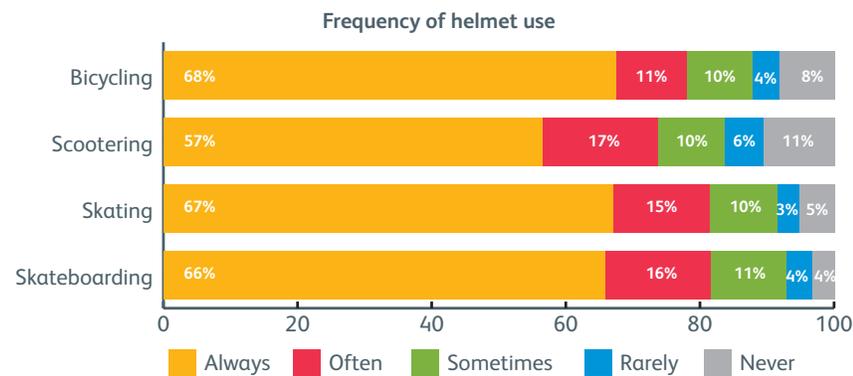


Children’s Use of Helmets

As hard as they might try, parents and other caregivers can’t prevent an injury incident from happening – and statistics suggest it is not a matter of IF one happens, but WHEN. But, parents can make sure children who participate in wheeled sports are protected to lessen the severity of the injuries from a fall or crash.

So how are parents and caregivers doing in protecting children participating in these wheeled sports? Although helmet use has increased over the past few decades,^{4,9-13} we found that nearly 4 in 10 parents of children ages 5-14 years indicated that their child did not always wear a helmet when participating in one of the four wheeled sports we asked about. The proportion indicating their child did always wear a helmet varied from 68 percent for bicycling down to 57 percent for scootering (Figure 6).

Figure 6. Children who scooter were least likely to always wear a helmet



The lower helmet-wearing rate for children scootering is particularly interesting given that children participating in this activity within our sample tend to be younger (average age 8.4 years). Parents may be perceiving scootering as being less dangerous, but 12 percent of ED visits and 19 percent hospital admissions for scooter injuries to children in 2015 were because of a head injury.

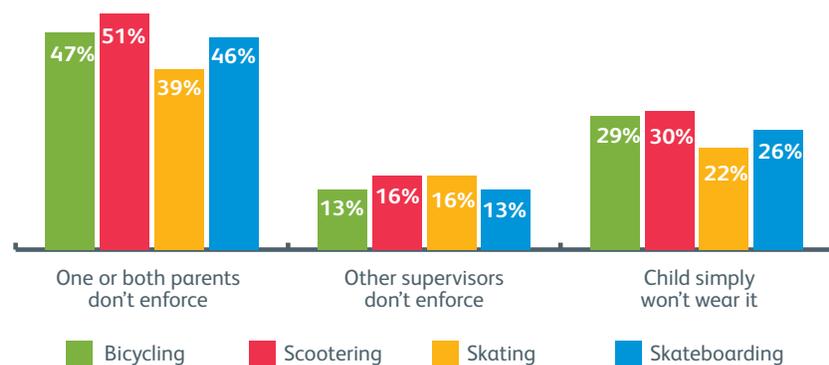
Overall, parents were more likely to report that young children always wear a helmet compared to older children across all four wheeled sports (67 percent of 5-9 year olds and 61 percent of 10-14 year olds), but no significant difference was found between boys and girls. Helmets were the piece of safety equipment that parents indicated their children were most likely to use or wear.

Consistent with previous research, we found that legislative solutions also appear to be helpful in keeping kids safe while riding.^{9,11,14} Parents from a state with a bicycle helmet law in our survey were more likely to report that their child always wears a helmet than parents from a state without a bicycle helmet law (75 versus 60 percent).

Parent helmet use was also strongly associated with increased helmet use by children while bicycling. Among parents who say they always wear a helmet when riding a bike, 86 percent say their child also always wears a helmet. However, among parents who say they never wear a helmet, only 38 percent say their child always wears a helmet. This finding is consistent with previous research that suggests that parental modeling of desired behavior increases helmet use.^{4,9-10}

When we asked parents whose children did not always wear a helmet “why,” nearly half indicated that they or the child’s other parent don’t always make him or her wear it. Another 25 percent indicated their child simply won’t wear a helmet. Overall, parents were least likely to make children scootering wear a helmet, followed by bicycling and skateboarding (Figure 7).

Figure 7. Many parents are not enforcing helmet use for their kids



There were no significant differences by a child’s age or gender, but parents in suburban and rural areas were more likely to report that they don’t make their child wear their helmet while biking and scootering, compared to parents in urban areas. This despite the fact that, for at least biking, research suggests that children riding in rural areas are at increased risk for injury.¹⁵

Use of Other Protective Equipment

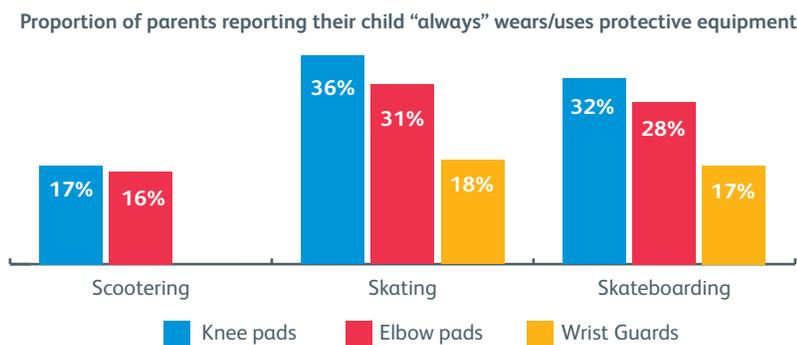
Using protective equipment means more than just wearing a helmet. While wearing a helmet is the best way to reduce head injuries, riders also need to protect their elbows, knees and wrists in case of a fall. Additional equipment such as pads and guards are important pieces of protective equipment for children scootering, skating and skateboarding.¹⁶

In 2015, the majority of ED visits for wheeled sports were for fractures, contusions and abrasions, most often to upper and lower limbs. So it is not surprising we found that less than 1 in 5 parents whose children scootered indicated their child always uses knee or elbow pads. For parents whose children skate, less than 2 in 5 indicated their child always uses knee or elbow pads and even fewer, less than 1 in 5, reported their child always wears wrist guards.

Parents of children who skateboard were least likely to report wearing additional gear, with less than 1 in 3 reporting their child always wears either knee or elbow pads and less than 1 in 5 reporting they always wear wrist guards (Figure 8). Parents who reported their children always use helmets were more likely to report using other protective equipment as well.

Making sure a child is visible is one of the most important steps parents can take to ensure their safety whether it is during the day or when it starts to get dark, although it becomes more important as soon as the sun begins to set. We found that overall about 3 in 10 parents report their child always uses reflectors or reflective clothing, with children who bike being twice as likely as the other three wheeled sports. A similar low proportion of parents who indicated their child participated in one of the wheeled sports at dusk or at night reported that their child always wears reflective gear while riding during those times.

Figure 8. Very few parents report their children “always” use protective equipment when scootering, skating or skateboarding



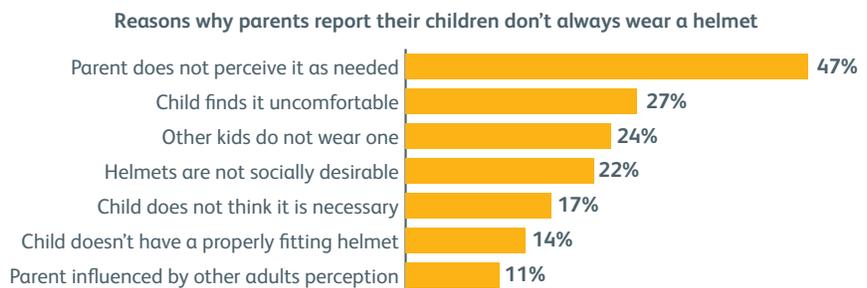
How Misperceptions Impact Preventative Behaviors

Perceived Lack of Need

When we looked further into why children are not wearing a helmet, surprisingly, the most frequent reason was that the parent did not perceive a need because they either do not think helmets are necessary, they view their child as an experienced rider or their child does not participate in the activity in what they believe to be a dangerous area (Figure 9).

Other reasons included the child finds it uncomfortable (27 percent), other kids don't wear one (24 percent) and helmets not being seen as socially desirable or cool (22 percent). While these latter reasons have been found previously in research,^{4,5} *lack of perceived need by parents is a new and concerning finding.*

Figure 9. Nearly half of parents whose children do not “always” wear a helmet do not see it as needed



Three of the reasons parents reported varied significantly across the four wheeled sports:

- Parents whose children scooter and skateboard were less likely to perceive the need for a helmet than parents whose children bicycle and skate.
- Parents of children who skateboard were more likely to report that their child does not think a helmet is necessary compared to parents of children who participate in the other three wheeled sports.
- Parents of children who skateboard and bicycle were more likely to report that social desirability was an issue for their child compared to parents of children who skate or scooter.

In addition, parents in rural areas were more likely to state that helmets were not necessary (60%) than parents in suburban (48%) and urban (40%) settings.

We also asked parents if their child “ever” removed their helmet after they had made sure it was on. Half of parents whose children ride a bike indicated they had, and even more parents whose children participate in the other three wheeled sports indicate they had – about 6 in 10 for children scootering and about 7 in 10 for children skating or skateboarding. Boys were more likely to have removed their helmet after their parent had made sure it was on.

Perceived Safe Place

Most parents surveyed, 9 out of 10, believe their community is very or somewhat safe for kids who want to participate in the wheeled sports we asked about. Further, many reported that their child is not participating in wheeled sports on the road and instead are participating in parks, on sidewalks and in other places where cars are less prevalent – which may also increase their perception that their child is safe and a helmet and other protective gear is not necessary.

Yet while many of the locations where parents reported their child participates in wheeled sports may not involve motor vehicles, they still involve hard surfaces that can cause injury when the head strikes the ground. Parents may not realize that serious and even fatal injuries also occur away from traffic, and that those injuries are most often head injuries. With this in mind, helmets and other protective gear should be worn regardless of where children ride.

Parental Supervision

Not surprisingly, the percentage of parents reporting they are supervising their children while they participate in wheeled sports decreases as the child gets older. Parents are less likely to watch their child when he/she is riding a bike, but more likely to participate with their child in that activity.

While some parents indicated they were comfortable with a child as young as age 5 participating unsupervised, most indicated they were not comfortable until ages 10-12 or 13 or older, depending on which wheeled sport is involved.

- Bike – 44 percent indicated 10-12 years; 43 percent indicated 13+ years
- Scooter – 43 percent indicated 10-12 years; 37 percent indicated 13+ years
- Skate – 33 percent indicated 10-12 years; 58 percent indicated 13+ years
- Skateboard – 37 percent indicated 10-12 years; 57 percent indicated 13+ years



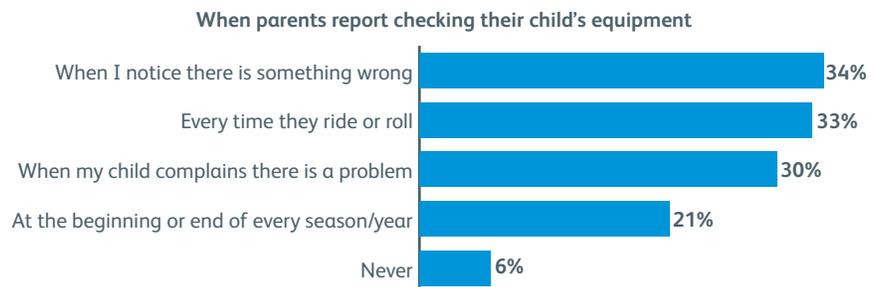
For children whose parents indicated they participate in a wheeled sport at dusk or at night, 25 percent of parents of 8-9 year olds, 57 percent of parents of 10-12 year olds and 80 percent of parents of 13-14 year olds indicated they do not always supervise their child when they ride at dusk or at night.

Maintaining Equipment

Keeping wheeled equipment in good condition and repair is an important step to avoid preventable injuries,¹⁷ and we recommend checking all equipment at the beginning or end of every season. However, we found that about a third of parents check equipment when they notice there is something wrong, and another third check when their child complains there is a problem (Figure 10).

Periodic examination of equipment is important, so we also asked parents how necessary they thought it was to check various aspects of the equipment their child used for the four wheeled sports. Parents seemed quite aware of the things that should be checked for bicycling, but were less familiar or saw checking aspects of equipment less necessary for scootering, skating and skateboarding.

Figure 10. Only a third of parents regularly check equipment

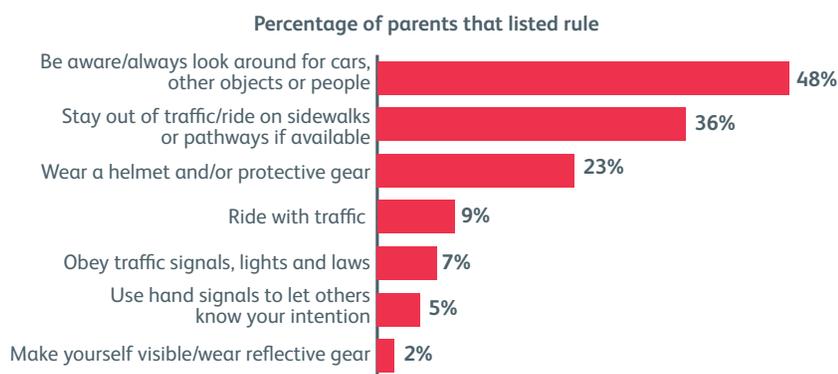


Rules of the Road

The majority of parents indicated they have spoken to their child about the “rules of the road.” However, when we asked parents what the rules of the road were, many of the recommendations from experts such as obeying traffic signals, lights and laws or using sidewalks, bike paths or bike lanes when available were either rarely included in their list or left out entirely (Figure 11). The most frequently mentioned rule was to be aware of their surroundings and be on the look out for cars, objects and people.

Rules mentioned varied by wheeled sport, with parents of bicycling children more likely to include obey traffic signals, lights and laws, use hand signals and ride with traffic, and less likely to include stay out of traffic/ride on sidewalks or pathways, than parents of children participating in the other three wheeled sports.

Figure 11. Many parents are not teaching their children the basic rules of the road



There were some interesting differences in the rules parents shared:

- Parents who indicated that their child rode or rolled on roads were more likely to include obeying traffic signals, lights and laws in their list of rules, yet many children who ride on sidewalks still have to cross streets safely.
- Parents who included wear a helmet as a rule were also more likely to report that their child always wears a helmet.
- Parents who listed wearing reflective gear and being visible as a rule were more likely to report that their children always wear reflective gear when participating in wheeled sports.

These findings suggest the need for additional education around the rules of the road and support for parents in ensuring children are prepared to safely participate in wheeled sports.

Recommended rules for bicyclists riding on the road

In addition to wearing a helmet for every ride, the recommended rules for bicyclists riding on the road include:

- Use bike lanes when available.
- Ride with the flow of traffic, staying as far right as is practical and three feet from parked cars.
- Be predictable. Ride in a straight line and don't weave in and out of traffic.
- Use arm signals to indicate intentions to other drivers and riders.
- Obey all traffic signs, lights and postings; on the road, you are considered a vehicle.
- Be visible. Wear bright or reflective clothing to be seen at dusk or night.
- Be aware of your surroundings and watch for hazards as you ride.



Public Policy and Wheeled Sports

Bike Helmet Laws on the Slow Lane

Science tells us that young brains need helmets to minimize injuries, and our data indicates that 60 percent of the parents who told us their child does not always wear a helmet live in a state where there is no helmet law. Despite this, policy makers are not passing stronger laws for wheeled sports safety. Just 21 states and the District of Columbia require kids ranging from 17 and under (California and New Mexico), to 11 and under (Pennsylvania) to wear a helmet. No proactive state bike helmet legislation has become law for at least ten years.¹⁸

Why the resistance? A bike enthusiast explained why to *The New York Times*: If you say that bicycling is “wonderful, but you have to wear armor, they won’t.”¹⁹ Vigorous opponents of helmet laws say it’s an assault on personal freedom.²⁰

The trend toward “bike sharing” programs, in which riders can borrow a bike for a short period of time at kiosks without any people-to-people contact, may also be slowing passage of new laws requiring bike helmets. For one thing, a successful solution for borrowing a bike helmet with a shared bike has not been developed.¹⁹ To make these ventures successful, cities have resisted requiring helmets, even in New York City, which has a history of leading on child safety.¹⁹ Some cities have repealed or scaled back their bike helmet laws to accommodate bike sharing. One example is in Dallas, Tex., where a law that once applied to all riders now covers only children under 18,²¹ a compromise that Safe Kids argued for.²² However, this may not be a major concern because shared bikes are usually large and heavy and are not functional for smaller kids.

Some existing helmet laws do extend to skateboards and other wheeled sports.²³ In Florida, “Max’s Helmet Law,” named after a teenager named Max Cardenas who died penny boarding in Broward County, Fla., would require children under 16 to wear helmets on skateboards, scooters or other foot-propelled vehicles.²⁴

Protected Bike Lanes: Safer for More Riders

While bike helmet laws are not at the top of legislative agendas, there’s a viable place for public policy to make wheeled sports safer. U.S. cities are making significant investments in their bike friendly infrastructures — it’s a strong lure for tourist dollars and helps meet economic development goals. Thus, it’s a winnable policy strategy to advocate for protected bike paths and to build them through residential areas and around schools. That is what happened in Austin, Tex. The city created a two-way, 1.5-mile bike lane in the western part of the capital city, which kids now use to get to their local elementary school. It contributed to a 46 percent increase in bike traffic after just one year.²⁵

Today, the best practice is to build protected bike lanes, which are designed to create a physical separation between motorized and bicycle traffic as well as sidewalks. Anything from flexible posts to parked cars or curbs are used to separate bicycles from other traffic. Often, traffic signals regulate all who share the road, not just cars and pedestrians, and vivid road markings make the separation clear. The benefits of protected bike lanes are that they provide parents with a confidence that they and their kids will be safer, and in fact they are safer.

A study of ten U.S. cities, ranging from Minneapolis to car-centric Los Angeles, demonstrated that bike infrastructure improvements lead to significant reductions in crashes and fatalities or severe injuries —specifically citing protected bike lanes.²⁶⁻²⁷ As Minneapolis grew its bike infrastructure between 2000 and 2015, including protected bike lanes, its bike crash rate per 100,000 trips in the city plunged 75 percent and the rate of severe injuries and fatalities fell by 79 percent.²⁸

Calls to Action

1. Jump on the bandwagon and lobby for investments in protected bike lanes in your community and press for them to be routed in and near safe school routes.
2. If your community is building or repairing major roads, encourage city planners to include safety measures for bicyclists and pedestrians.
3. Though it's harder, advocate for helmet laws for young bicyclists, skateboarders and others engaged in wheeled sports, starting at the local level.

Grade Your Community on Wheeled Sports Safety

Does your state or city require kids to wear bike helmets?

Yes ___ (5 points) No ___ (0 points)

Up to what age?

14 ___ (2 points) 15 ___ (3 points) 16 ___ (4 points) 17 ___ (5 points)

Does your helmet law apply to skateboards, scooters and in-line skates?

Yes ___ (5 points) No ___ (0 points)

Has your community built safer skateboard zones and are helmets required to skate in them?

Yes ___ (5 points) No ___ (0 points)

Are there protected bike lanes in your community?

Very robust ___ (5 points) Some ___ (3 points) No ___ (0 points)

Hint: *People for Bikes* provides a census of where protected bike lanes are located in community. *Bicycling Magazine* rates the top 50 U.S. cities for bike safety measures and other features.²⁹

Is there an active Safe Routes to School program in your community, as well as a Vision Zero commitment?

Both ___ (5 points) One of them ___ (3 points) None ___ (0 points)

Does your community have bike specific signaling at intersections?

Yes, all ___ (5 points) Yes, some but not all ___ (4 points) No ___ (0 points)

Score

23-35 = Golden Spoke Award
15-22 = Silver Handlebar Award
0-15 = Aluminum Brake Award

A Law We Like

Way back in 1971, John Stathos, a Republican legislator from Jacksonville, Ore., fought and won passage of a bill that required bike lanes on most road construction projects, ORS 366.514.³⁰ The results speak for themselves: Oregon has the highest bike commuting rate in the nation, 2.6 percent. Oregon is leading again with Portland setting a rule that bike lanes must be a protected bike lane.³¹



Smart Strategies for Parents

Safety on wheels is a mixed success story. Compared to 20 years ago, far more children are wearing helmets today and more states are supporting efforts to keep children safe by requiring their use. We have seen fatality and injury rates for bicycling and skateboarding decrease. However, injuries during scootering and skating are increasing, and the results of our survey suggest that some parents may not realize the level of risk their child faces when riding without protective equipment. Safety on wheels for kids requires both action at home and action in the community. Working together, communities can support parents' efforts and provide safer environments that will keep our children safe and active.

Here are some tips for parents to help keep their riders safe!

For Bicyclists:

1. All bicyclists should wear a properly-fitted helmet. It is the best way to prevent head injuries and death. Ensuring correct fit of a helmet can increase comfort and use.
2. Children should ride on the sidewalk, bike pathways or bicycle lanes when available. If not, ride in the same direction as traffic as far on the right-hand side as is practical.
3. Use hand signals and follow the rules of the road. Be predictable by making sure you ride in a straight line and don't swerve between cars.
4. Wear bright colors and use lights, especially when riding at dusk, night and in the morning. Reflectors on your clothes and bike will help you be seen.
5. Ride with your children. Stick together until you are comfortable that your kids are ready to ride on their own.
6. Check equipment at the beginning and end of the season, particularly fit for your child and things like brakes and tire pressure.

For Skaters/Skateboarders and Scooters:

1. Wear a properly-fitted helmet. Knee pads and elbow pads are recommended for everyone, especially for beginners. Wrist guards are also recommended for skaters and skateboarders. Mouth guards are good protection against broken teeth.
2. Children should ride on smooth, dry surfaces located in a well-lit area away from traffic.
3. Check equipment at the beginning and end of the season and teach children to check scooters, skates and boards for problems before each use. If there are any cracked, loose or broken parts, the item should not be used until it is repaired.
4. Teach children to minimize the impact of a fall by crouching down as they lose balance to reduce the distance to the surface.



References

1. Daniels SR, Hassink SG. The Role of the Pediatrician in Primary Prevention of Obesity. *Pediatrics* 2015; 136(1):e275-e292. DOI: 10.1542/peds.2015-1558.
2. American Academy of Pediatrics. Policy Statement: Skateboard and Scooter Injuries. *Pediatrics*. 2002;109(3):542–543. Reaffirmed October 2013.
3. Zeuwts LHRH, Vansteenkiste P, Deconinck FJA, Cardon G. Hazard perception in young cyclists and adult cyclists. *Accident Analysis and Prevention* 2016, <http://dx.doi.org/10.1016/j.aap.2016.04.034>
4. Kronke EL, Niedfeldt MW. Use of Protective Equipment by Adolescents in Inline Skating, Skateboarding, and Snowboarding. *Clin J Sport Med* 2008; 18(1):38-43.
5. Page JL, Macpherson AK, Middaugh-Bonney T, Tator CH. Prevalence of helmet use by users of bicycles, push scooters, inline skates and skateboards in Toronto and the surrounding area in the absence of comprehensive legislation: an observational study. *Injury Prevention* 2012; 18:94-97.
6. Drake KM, Beach ML, Longacre MR, MacKenzie T, Titus LJ, Rundle AG, Dalton MA. Influence of Sports, Physical Education, and Active Commuting to School on Adolescent Weight Status. *Pediatrics* 2012; 130(2):e296e304.
7. United States Consumer Product Safety Commission. National Electronic Injury Surveillance System. [Online]. Codes used: ages 0 to 19 years, all races, both sexes, years 2005-2015. Accessed January 12, 2017. Available from: <http://www.cpsc.gov/en/Research--Statistics/NEISS-Injury-Data/>
8. Centers for Disease Control and Prevention (CDC). Web based Injury Statistics Query and Reporting System (WISQARS). Atlanta, GA; 2015 Accessed: February 2017 [Search Criteria: Years 2003–2014; Unintentional; Pedalcyclist-motor vehicle and Pedalcyclist-other; Ages 0–19]. Available from: <http://webappa.cdc.gov/cgi-bin/broker.exe>
9. Jewet A, Beck LF, Taylor C, Baldwin G. Bicycle helmet use among persons 5 years and older in the United States, 2012. *Journal of Safety Research* 2016; 59:1-7.
10. Ross LT, Brinson MK, Ross TP. Parenting influences on bicycle helmet rules and estimates of children's helmet use. *J Psychol* 2014; 148(2):197-213.
11. Schroeder P, Wilbur M. 2012 National survey of bicyclist and pedestrian attitudes and behavior, volume 2: Findings report. (Report No. DOT HS 811 841 B). Washington, DC: National Highway Traffic Safety Administration, October 2013. Accessed April 10, 2017. Available at: <https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/811841b.pdf>
12. Dellinger AM, Kresnow M. Bicycle helmet use among children in the United States: The effects of legislation, personal and household factors. *Journal of Safety Research* 2010; 41:375-380.
13. Thakore S, Tram J, Hagel BE, Kyle T, Senger T, Belanger F. Injuries among wheeled shoe users: A comparison with other nonmotorized wheeled activities. *Paediatr Child Health* 2009; 14(8):509-513.
14. Lindsay H, Brussoni M. Injuries and helmet use related to non-motorized wheeled activities among pediatric patients. *Chronic Diseases and Injuries in Canada* 2014; 34(2-3):74-81.
15. Embree TE, Romanow NT, Djerboua MS, Morgunov NJ, Bourdeauz JJ, Hagel BE. Risk Factors for Bicycling Injuries in Children and Adolescents: A Systematic Review. *Pediatrics* 2016; 138(5):e20160282.
16. Shuman KM, Meyers MC. Skateboarding injuries: An updated review. *The Physician and Sportsmedicine* 2015; 43(3):317-323.
17. Bromell RJ, Geddis DC. Child Cyclists: A study of factors affecting their safety. *Journal of Paediatrics and Child Health* 2017; 53(2):145–148.
18. The League of American Bicyclists. State Bike Laws. Washington, DC: The League of American Bicyclists. Accessed March 28, 2017. Available at: <http://bikeleague.org/StateBikeLaws>; See also, Pedestrians and bicyclists. Arlington, VA: Insurance Institute for Highway Safety, March 2017. Accessed March 28, 2017. Available at: <http://www.iihs.org/iihs/topics/laws/bicycle-laws/table-bicycle-helmet-use?topicName=pedestrians-and-bicyclists>
19. Rosenthal E. To Encourage Biking, Cities Lose the Helmets, New York, NY, The New York Times, September 29, 2012. Accessed March 28, 2017. Available at: <http://www.nytimes.com/2012/09/30/sunday-review/to-encourage-biking-cities-forget-about-helmets.html>
20. Blue E. The Great Debate Around Cycling Helmet Laws, Vancouver, BC: Momentum Magazine, June 8, 2015. Accessed March 28, 2017. Available at: <https://momentummag.com/cycling-helmet-laws-debate/>
21. Benning T. Dallas bike helmet rules now apply only to cyclists under age 18, Dallas, TX: Dallas Times, June 2014. Accessed March 28, 2017. Available at: <http://www.dallasnews.com/news/dallas-city-hall/2014/06/11/dallas-bike-helmet-rules-now-apply-only-to-cyclists-under-age-18>
22. Letter to Dallas Mayor Pro Tem Dwaine Caraway, May 29, 2014. Accessed March 29, 2017. Available at: https://a3f81f198a260bc434c5-8f8af7b10ac8f957b05556159de44bb7.ssl.cf5.rackcdn.com/2017/Dallas_repeal_FINAL.PDF

23. Including California, Maryland, Massachusetts, New Jersey, Oregon, Rhode Island and the District of Columbia, and cities and counties. Kristen, Youth Helmet Laws in the U.S., Accessed March 28, 2017. Available at: <http://rascalrides.com/youth-helmet-laws-in-the-u-s/>
24. Florida Senate Bill 266, LegiScan. Accessed March 28, 2017. Available at: <https://legiscan.com/FL/bill/S0266/2017>.
25. Anderson M, The protected bike lane ridership bump, city by city, Boulder, CO: People for Bikes, June 3, 2014. Accessed March 28, 2017. Available at: <http://www.peopleforbikes.org/blog/entry/everywhere-they-appear-protected-bike-lanes-seem-to-attract-riders>.
26. Pucher J, Buehler R. Safer Cycling Through Improved Infrastructure. American Journal of Public Health 2016, 106(12):2089-2091.
27. Dudley D, Why Protected Bike Lanes Save Lives, Washington, DC: The Atlantic City Lab. Accessed March 28, 2017. Available at: <https://www.citylab.com/transportation/2016/11/why-protected-bike-lanes-save-lives/508436/>
28. Brandt S, Minneapolis leads bike-friendly cities in cutting bike crash, injury rates, Minneapolis, MN: Star Tribune, November 12, 2016. Accessed March 28, 2016. Available at: <http://www.startribune.com/minneapolis-leads-bike-friendly-cities-in-cutting-bike-crash-injury-rates/400901311/>
29. Dille I. The 50 Best Bike Cities of 2016. Bicycling, September 19, 2016. Accessed March 28, 2017. Available at: <http://www.bicycling.com/culture/news/the-50-best-bike-cities-of-2016>
30. Oregon statutes 366.514, 1971. Accessed March 28, 2017. Available at: <https://www.oregonlaws.org/ors/366.514>.
31. Anderson M. Portland is first U.S. city to make protection the default for all new bike lanes. Bikes, June 3, 2014. Accessed March 28, 2017. Available at: <http://www.peopleforbikes.org/blog/entry/portland-is-first-u.s.-city-to-make-protection-the-default-for-all-new-bike>

Suggested citation: MacKay JM, Steel A, Corsini S, Green A. Ready for the Ride: Keeping Kids Safe on Wheels. Washington D.C.: Safe Kids Worldwide, May 2017.

Methodology

Safe Kids Worldwide commissioned a national online survey of 1,600 parents of children age 5 to 14 who ride bicycles, scooters, roller/inline skates and skateboards. A quota of n=400 was set for each activity type. The survey, developed specifically for the study, took 20 minutes to complete and was fielded from February 15-20, 2017. For practical purposes, the margin of error for the total population (N=1,600) included in this study is 2.5% at a 95% confidence level. For each individual activity quota (N=400) the margin of error is 4.9% If recruited, managed and selected correctly, online samples can effectively reflect a known universe, however, most online samples are not considered generalizable because they are not true random samples of the population where every member has a known and non-zero probability of selection.



Safe Kids Worldwide
1255 23rd Street, NW
Suite 400
Washington, D.C. 20037
202.662.0600

www.safekids.org

© 2017 Safe Kids Worldwide