



**U.S. CONSUMER PRODUCT SAFETY COMMISSION
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**STATEMENT OF COMMISSIONER ELLIOT F. KAYE
ON ENDING PERSISTENT SAFETY HAZARDS**

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The U.S. Consumer Product Safety Commission's (CPSC's) mission is to protect the public from unreasonable risk of injury from most consumer products that we use on a daily basis, from the appliances that we make our breakfast with in the morning to the beds we put our children to sleep in at night. We monitor thousands of different types of consumer products. Deaths, injuries, and property damage from consumer product incidents, many of which are preventable, cost our nation more than \$1 trillion annually. The CPSC carries out this enormous public safety mission with a tiny budget and a modest staff in comparison with many of our sister federal safety agencies.

During the past forty years, we have made enormous strides to reduce many product hazards and protect consumers. Yet, year after year, we see many of the same hazards produce injuries and deaths. Year after year, the same families, who have lost their children and grandchildren to unsafe products, call upon us to take action. And sadly, more families keep joining their ranks as the hazards go unaddressed.

Their calls to action deserve just that: ACTION.

Collectively, we – policymakers, CPSC staff, safety experts, industry leaders, consumer advocates, and consumers – must stay engaged in our efforts to find ways forward, to find safety solutions.

I believe that together we can and we must end these persistent hazard patterns.

With that in mind, here are 10 persistent hazards that continue to top my priority list, and some steps we should take to end these needless tragedies.¹

¹ The views expressed in this paper are those of Commissioner Kaye and do not necessarily represent those of the Commission or Commission staff. Statistical citations are subject to change because reporting is ongoing.

Persistent Hazard #1: Furniture Tipovers

About one child every two weeks dies from being crushed beneath heavy, unstable products (television, furniture and appliances total). Of the 542 reported fatalities associated with tipover incidents occurring between 2000 and 2017, 450 (83%) involved children aged 1 month to 14 years. From 2000 to 2017, 165 people have been killed in incidents that involved only furniture tipovers; 110 of those fatalities involved a chest, bureau or dresser. Every year, furniture-only tipover incidents are associated with an estimated annual average of 19,100 emergency department-treated injuries, with 7,800 involving children younger than 10 years.²



Unstable and unsecured furniture is a deadly hidden hazard, particularly in homes with young children who are prone to climbing. Warning the public about this hazard is important, but more must be done to design safer, more stable furniture. The voluntary industry standard covering clothing storage units, in existence since 2000, is a static test that uses 50 lbs. as the test weight a unit must be able to withstand before tipping over. However, this standard does not mimic real-life scenarios, and covers only approximately 80% of the victim population because it is based on old anthropometric data for children up to age 5 years. In recent years, as American children have increased in size, the weight in the standard's test method has not been adjusted. Today, even fewer potential victims are covered by the standard than its drafters had anticipated. Most important, the standard does not address all the real-life scenarios that contribute to the risk children are facing from unstable furniture.

Steps Toward Ending the Hazard:

- ✓ The voluntary standard for clothing storage units needs significant improvement now. This includes updating the test weight and working to develop better, more dynamic test methods that mimic real-life scenarios including replicating the forces seen as a child climbs on a drawer. The goal is a better performance requirement that prevents tipover in worst-case scenarios.

² https://www.cpsc.gov/s3fs-public/Product%20Instability%20or%20Tip%20Over%20Report%20Oct%202018_STAMPED.pdf?J6AwbQ.ZwNOKkWQknOKUDi4ur0i.6D73

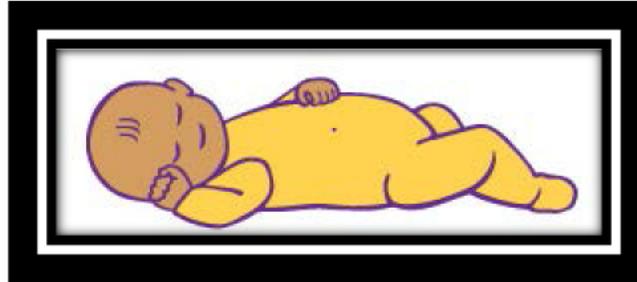
Test methods must account for the weight of 95th-percentile children of the oldest reported child victim age, always using the most current weight data; the full extension of multiple drawers that are realistically weighted with reasonably foreseeable loads; reasonably foreseeable dynamic impulses observed in stepping onto an elevated surface, such as those recorded in previous CPSC studies of oven stability; and the effects of carpeted surfaces with carpet tack strips under the back legs of a dresser.

Surrogate methods could be used to address all these enumerated parameters. A dynamic approach can be used as the basis for a static test. Such an approach would require measuring the forces produced by children in a “worst-case scenario,” determining the maximum expected effect on stability of thick carpeting and carpet padding, multiple, weighted, fully extended drawers and then increasing the surrogate static test weight requirement to be equivalent to those combinations of forces tallied in a dynamic situation. A static method allows for a simpler, more reliable test with a higher assurance of safety.

- ✓ In 2017, the CPSC initiated rulemaking to address injuries and deaths associated with clothing storage units tipping over. If the voluntary standard does not adequately address the hazards or compliance with an improved voluntary standard is lacking, the CPSC should continue to pursue as expeditiously as possible a mandatory safety standard.
- ✓ As warranted, the CPSC must aggressively pursue robust, consumer-friendly recalls for the dangerously unstable furniture already on the market.
- ✓ Industry and policy makers must commit to targeted anchoring messaging that is proven effective and adequately funded.

Persistent Hazard #2: Suffocation and Safe Sleep Issues

In 2017, suffocation was overwhelmingly the leading cause of fatal injury for infants younger than 1 year old, resulting in more than 1,000 deaths per year.³



Many incidents could be prevented with adequate regulation of children’s durable nursery goods and effective messaging communicating the proper use of juvenile products intended for sleeping. The federal government has been coordinating messaging on safe sleep for years, including campaigns such as Back to Sleep and Bare is Best.⁴ And yet, dozens of infants and children die each year from soft bedding in their sleeping environments.⁵

Steps Toward Ending the Hazard:

- ✓ The CPSC must complete its statutorily required rulemaking efforts under Danny’s Law or Section 104 of the CPSIA with respect to federal standards that reduce the hazards associated with durable nursery products including, but not limited to crib bumpers, crib mattresses, including supplemental and aftermarket mattresses for play yards, inclined sleepers, and any new durable infant sleep products.
- ✓ The CPSC must increase the agency’s efforts to be transparent and provide the public with timely information regarding infant sleep products associated with fatalities and severe injuries in order to allow parents and caregivers to make fully informed choices.
- ✓ The CPSC must work cooperatively with its federal regulatory partners to evaluate more quickly the safety of infant sleep products and push for removal of the hazardous ones from the market as appropriate.
- ✓ Given the rising popularity of social media “influencers” and the increasing variety of infant sleep products available to consumers, we need more evaluation

³ <https://www.cdc.gov/injury/images/lc-charts/leading-causes-of-death-by-age-group-unintentional-2017-1100w850h.jpg>

⁴ <https://www1.nichd.nih.gov/sts/Pages/default.aspx>

⁵ See Staff Briefing Package on CPSC Staff Response to the Record of Commission Action on Crib Bumpers (September 9, 2016), Tab E, at 28.

of safe sleep messaging and information and education campaigns to ensure that the intended audience is being reached and the messaging is effective. Messaging should be tailored to high-risk groups so that educational materials are not disregarded. Research into the effective components of public education that will convince consumers to change their safety behaviors is desperately needed.

Persistent Hazard #3: Drownings

Drowning is the leading cause of unintentional death in children ages 1 -4.⁶

On average, there were 351 pool- or spa-related drownings reported per year for 2015 through 2017, involving children younger than 15 years of age.⁷

Children who survive a submersion incident may suffer from debilitating brain injuries for years before dying of complications caused by their condition.



The CPSC and its partners have long promoted swim lessons and safety tips in and around pools. The CPSC's *Pool Safety* campaign is a call-to-action for consumers and industry to adopt proven water safety steps and join a national conversation about pool and spa safety by sharing best practices and other life-saving information. While CPSC's implementation of the Virginia Graeme Baker Pool and Spa Safety Act seems to have brought pool drain entrapment fatalities in public pools to zero, we still see hundreds of drowning deaths, especially during the summer months and year round in warm weather climates.

Steps Toward Ending the Hazard:

- ✓ More research is needed regarding the precursors and conditions that lead to drownings.
- ✓ We need advancements in technology so that caregivers and pool owners will one day have better surveillance tools to safeguard children near water and respond more quickly in an emergency.

⁶ <https://www.cdc.gov/injury/images/lc-charts/leading-causes-of-death-by-age-group-unintentional-2017-1100w850h.jpg>

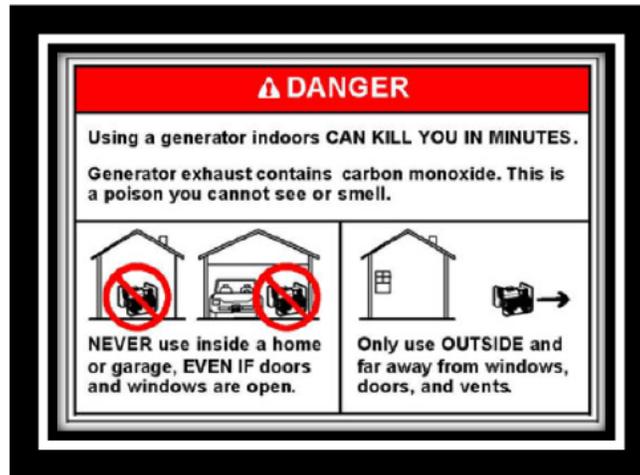
⁷ [https://www.cpsc.gov/s3fs-public/Pool Spa Submersion Estimated nonfatal drowning injuries and reported drownings 2018 report 2018H002.pdf?hak4TSK.2PVleeVQeMkFJkJOBSnoSP4Z](https://www.cpsc.gov/s3fs-public/Pool+Spa+Submersion+Estimated+nonfatal+drowning+injuries+and+reported+drownings+2018+report+2018H002.pdf?hak4TSK.2PVleeVQeMkFJkJOBSnoSP4Z)

- ✓ More research is needed into the best practices to guide and engage consumers in understanding the necessity of four-sided fencing around pools, assigning water watchers, teaching children to swim and alerting the public to the hazards associated with pools, including wading pools, above-ground pools, and spas.

Persistent Hazard #4: Carbon Monoxide Poisonings

There was an estimated annual average of 149 deaths from 2012 to 2014 from unintentional non-fire carbon monoxide (CO) poisoning associated with consumer products under the CPSC's jurisdiction.

Since 2004, portable generators have been associated with an estimated 696 non-fire CO poisoning fatalities.⁸



Many consumers do not realize the risk associated with operating portable generators near or in their homes. CO poisoning is an invisible killer because consumers cannot see or smell it. For many years, there was a resistance to voluntarily adopting low-CO engine designs and/or a shut-off system that uses sensors mounted on the generator to turn it off in the case of CO accumulation. Efforts to design performance standards to reduce the risk of CO poisoning through shut-off technology and/or low-CO engine designs have been contemplated and adopted by two different voluntary standards bodies.

Steps Toward Ending the Hazard:

- ✓ The CPSC must quickly evaluate and independently verify industry's work on the two voluntary standards (UL 2201 and ANSI/PGMA G300) that address CO poisonings associated with portable generators. After doing so, the agency should seek retrofit solutions when they are available for portable generators that do not comply with applicable updated voluntary standards.
- ✓ If either compliance with an improved voluntary standard is lacking or such voluntary standard does not adequately address the hazards, CPSC should revisit its open rulemaking without delay and finalize a mandatory safety standard for all portable generators.

⁸ https://www.cpsc.gov/s3fs-public/Non-Fire-Carbon-Monoxide-Deaths-Associated-with-the-Use-of-Consumer-Products-2014-Annual-Estimates.pdf?VzenVwwwvL5p7j_Mt0WrQvZkchDBFCM48

Persistent Hazard #5: Off Highway Vehicles (ATVs and ROVs)

From 1982 through 2017, CPSC staff received 15,250 reports of ATV-related fatalities, 3,315 of which were ATV-related fatalities of children younger than 16 years.⁹

From January 1, 2003 through April 5, 2013, there were a total of 550 reported ROV-related incidents resulting in at least one death or injury.¹⁰



ATVs

Since 2005, the CPSC has had an open rulemaking to address the hazards associated with ATVs. The Consumer Product Safety Improvement Act of 2008 (CPSIA) and P.L. 112-28 statutorily requires the Commission to finalize this rulemaking proceeding.

Steps Toward Ending the Hazard:

- ✓ The CPSC needs to finish its research and rulemaking as required by the CPSIA and P.L. 112-28 with respect to the remaining major hazard patterns associated with ATVs, especially unnecessary instability, access to the vehicles by children and passengers on ATVs.
- ✓ Congress must provide the CPSC with additional funding necessary to complete its ATV rulemaking.
- ✓ The CPSC should require more robust safety commitments from manufacturers and distributors through their ATV Action Plans filed with and approved by the

⁹ https://www.cpsc.gov/s3fs-public/atv_annual%20Report%202017_for_website.pdf?qLMnEEqa.T8KSOdW0r8qGgpUC7gQbqEd

¹⁰ <https://www.cpsc.gov/s3fs-public/SafetyStandardforRecreationalOff-HighwayVehicles-ProposedRule.pdf#page=454>. National estimates are not available because ROVs are not coded separately from ATVs in the NEISS; however, the reported incidents are certainly an undercount of the total number of incidents and deaths.

Commission, including expanded safety education efforts and continued progress on design changes through active voluntary standards participation.¹¹

ROVs

In recent years, ROVs have gained in popularity as ATV purchases have simultaneously slowed. Since 2009, the CPSC has had an open rulemaking on a mandatory federal standard for ROVs. However, in recent years, Congress specified that none of the funds made available to the CPSC may be used to finalize the ROV rulemaking until the National Academy of Sciences completes a study to determine specific information relating to the voluntary standard. Accordingly, the CPSC has not finalized its rulemaking, and staff has worked closely with the ROV industry to craft an improved voluntary standard.

Steps Toward Ending the Hazard:

- ✓ The CPSC must continue to work with industry to improve the voluntary standard for ROVs. More specifically, the standard must include effective provisions to address identified issues related to debris penetration and fire prevention in fuel and flammable fluid systems, electrical module and wiring thermal integrity, and flammable body panels.
- ✓ The CPSC should also assess the effectiveness of provisions regarding the required point-of-purchase information, stability and occupant protection during rollovers as well as monitor industry's compliance with the updated voluntary standard.
- ✓ The CPSC should better compile and make public the death and injury data associated with ROVs on an annual basis.

¹¹ For more information, see my statement on ATV Action Plans here: <https://www.cpsc.gov/s3fs-public/Kaye-Statement-on-ATV-Action-Plans-FINAL-4-18-18.pdf?LBIO6GTuUM8RII9Gd8JCOieDR9YnXGjs>.

Persistent Hazard #6: High Energy Density Batteries

The CPSC has recalled dozens of products with battery-related hazards, including computers, lights, hoverboards, baby monitors, toys, tools and household electronics.¹² Batteries are also used as the energy source in emerging products such as electronic ride share scooters.



As battery technology has progressed in recent decades, newer innovations, such as lithium-ion batteries, have made batteries that are smaller and more powerful. With these advancements, however, have come higher risks from design or manufacturing defects or damage to batteries. High energy density batteries can explode, causing fires and burns.

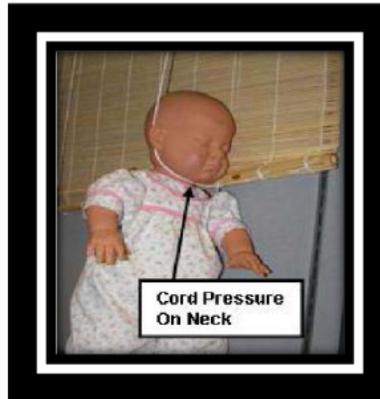
Steps Toward Ending the Hazard:

- ✓ The CPSC must continue its work to address the emerging and ongoing hazards associated with high energy density batteries, including but not limited to enforcement, voluntary and mandatory standards work, import surveillance and compliance, and industry, interagency and intergovernmental cooperation.
- ✓ Batteries should be closely monitored to ensure that supervisory electronics are adequate to prevent injuries and fires, and industry must work to design safety features that ensure high energy density batteries, battery packs, safety circuits, end products and chargers all work together to achieve safe operation for the intended application.
- ✓ Industry standards should ensure that consumers are properly instructed in the best practices for the proper care of devices containing high energy density batteries.
- ✓ The CPSC must continue to monitor the marketplace to identify the next generation of high density batteries to address safety issues on the front end.

¹²https://www.cpsc.gov/Recalls?combine=battery&=Apply&field_rc_date%5Bdate%5D=&field_rc_date_1%5Bdate%5D=

Persistent Hazard #7: Window Covering Strangulations

Every month, approximately one child dies and another suffers near strangulation after becoming entangled in a window covering cord. Incidents can involve children up to 9 years of age.¹³



Corded window blind cords can be a deadly hidden hazard. Safer options (either cordless or window coverings without dangerous accessible cords) are currently available on the market and can be functional, attractive and affordable. Although some retailers are committed to selling only safer options, certain types of window coverings with hazardous cords are still available for purchase and continue to present a hidden risk of strangulation to children. The voluntary standard that seeks to eliminate hazardous cords in “stock” or premade window coverings went into force but did not require the same level of safety for “custom” window coverings.

Steps Toward Ending the Hazard:

- ✓ The voluntary standard needs to move immediately to address fully the strangulation hazards associated with all window coverings, not just “stock” products.
- ✓ The agency should pursue retrofit solutions as appropriate.
- ✓ If the voluntary standards process does not quickly address the hazards associated with all window coverings, then the CPSC should resume its pursuit of a mandatory safety standard and align itself with other jurisdictions that require a higher level of safety.
- ✓ All participants in the supply and distribution chain (manufacturers, importers, distributors, and retailers) should commit to transition to safer window coverings, including in all “custom” products.

¹³ https://www.cpsc.gov/s3fs-public/5009aWindowCoveringsSafetyAlert6_0.pdf

- ✓ Consumers, particularly those with young children, should demand market change and purchase only safer window coverings.

Persistent Hazard #8: Chronic Chemical Hazards in Consumer Products

There is great uncertainty around the long-term effects of exposure to certain classes of chemicals found in certain consumer products.¹⁴ Consumers deserve some assurance that the chemicals used in their products will not affect their health or the health of their children over repeated exposures.

Crumb Rubber on Playgrounds and Athletic Fields



Many playgrounds and sports facilities used by children across America have artificial turf made with recycled tires ground into small pieces, which have been found to contain volatile and semi-volatile organic compounds and potential carcinogens. While linking cancer or other health effects to the use of crumb rubber is difficult, in 2016, the federal government began an interagency task force to study this issue. The CPSC is focused on its work as a part of the task force to estimate children's exposures to crumb rubber from playgrounds with the intent of estimating risks of adverse health effects.¹⁵

Steps Toward Ending the Hazard:

- ✓ The federal government must continue to work together across agencies to address the risks of chemical exposures from crumb rubber, especially to our youngest consumers, children.
- ✓ Policy makers must provide the CPSC with needed additional funding to continue any additional crumb rubber exposure studies and, ultimately, the risk assessment with respect to playgrounds that contain crumb rubber.

¹⁴ <https://www.epa.gov/chemical-research/federal-research-recycled-tire-crumb-used-playing-fields>

¹⁵ See my statement on the importance of the Federal Research Action Plan on Recycled Tire Crumb: <https://www.cpsc.gov/about-cpsc/chairman/elliott-f-kaye/statements/press-statement-us-cpsc-chairman-elliott-f-kaye-praising>.

- ✓ Consumers and advocacy groups should continue to demand answers from the federal government about the safety of their children's playgrounds and sports fields.

Additive Non-Polymeric Organohalogen Flame Retardants (ANOFRs)



ANOFRs typically are added to foams, textiles, and polymers, in theory to improve their resistance to fire. ANOFRs are not chemically bound to the substrate and they may release from products, thereby leading to potential human exposures. While preventing fires is a critical safety goal, questions have been raised about the efficacy of ANOFRs in mitigating fire risks. In 2015, a coalition of consumer advocates and health professionals petitioned the Commission to declare four categories of consumer products containing ANOFRs to be “banned hazardous substances” under the Federal Hazardous Substances Act (FHSA).¹⁶

Steps toward Ending the Hazard:

- ✓ As funding is needed, Congress must provide the CPSC with adequate, multi-year funding to continue its Chronic Hazard Advisory Panel study of ANOFRs as a class.
- ✓ All stakeholders, including policymakers and manufacturers, must move away from the culture of regrettable substitutions and design and fund a system to affirmatively ensure with unbiased expert reviews safe chemical alternatives for use in consumer products, especially when children may be harmed by exposure to those chemicals.

¹⁶ See my statements on these issues: https://www.cpsc.gov/s3fs-public/Commissioner_Kaye_Statement_on_Organohalogen_Fire_Retardants_Petition_9.20.17.pdf?caGuO1LWIZyZBwqIgZwED0EpFIDVtCjQ and <https://www.cpsc.gov/s3fs-public/Kaye-Statement-on-Turf-Infill-Standard-12-12-17.pdf?9t636Z.hRDA.m5VCTfrGRFUN9pik88GD>.

- ✓ Manufacturers, out of caution, should voluntarily eliminate use of ANOFRs in their products to the extent possible, particularly those used by pregnant women and young children, consistent with the guidance issued in the Federal Register on September 28, 2017 (82 FR 45268).¹⁷
- ✓ Importers, distributors, and retailers should obtain assurances from manufacturers that such products do not contain ANOFRs.
- ✓ Research must continue into safer and effective alternative methods to mitigate fire risks.
- ✓ Consumers, especially those who are pregnant or with young children, should inquire and obtain assurances from retailers that such products do not contain ANOFRs.

¹⁷ <https://www.federalregister.gov/documents/2017/09/28/2017-20733/guidance-document-on-hazardous-additive-non-polymeric-organohalogen-flame-retardants-in-certain>. The guidance and the steps suggested in this statement are not binding or enforceable rules and do not change any person's rights, duties, or obligations under the Federal Hazardous Substances Act or any other Act administered by the Commission.

Persistent Hazard #9: Falls

In 2016, 56% of fatal injuries to people over the age of 65 were falls.

Approximately 30,000 elderly people die annually from a fall.

For all ages, about 22% of fatal injuries were from falls.¹⁸



Every year, gravity-related injuries dwarf every other product category in the CPSC’s injury database, the National Electronic Injury Surveillance System (NEISS). The product category “Stairs, Ramps, Landings, Floors” tops the list of consumer product-related injuries.

Steps Toward Ending the Hazard:

- ✓ The CPSC should conduct more research regarding the effectiveness of fall prevention advice especially targeting older consumers and thoughtful design changes in their living environments to help us better prevent many of these incidents. Targeted efforts that treat special, high-risk communities with tailored messages would be more effective than a nationwide blitz of generalized information.
- ✓ The CPSC should study product-related changes that might assist in the design of safer living spaces for older Americans.

¹⁸ These numbers can be confirmed using the CDC’s WISQARS Fatal Injury Reports by selecting “unintentional” and “fall” in the search delimiters found here: <https://webappa.cdc.gov/sasweb/ncipc/mortrate.html>

Persistent Hazard #10: Sports-Related Brain Injuries

With more than 44 million children younger than 18 years old playing sports in the U.S., between 1.1 and 1.9 million concussions occur every year.¹⁹ Most of these children are not seen in health care settings. Repeated brain trauma may also contribute to life-long negative effects.²⁰



As advanced as brain science is, many gaps remain in our understanding of cellular biology, neurotransmitters and the healing mechanisms of the brain after strain and injury.

Steps Toward Ending the Hazard:

- ✓ More research is needed to understand brain injury, including chronic traumatic encephalopathy (CTE), traumatic brain injuries (TBI) and concussions, and how to treat and prevent their most severe effects.
- ✓ More research is needed on new and emerging helmet technologies and their relative effectiveness when used in different sports and helmet types. This includes research on the use of sensors and technology that claim to reduce rotational energy.
- ✓ The CPSC and its partners must through a properly funded and message-tested campaign educate young athletes and consumers on head and brain safety and the proper use of and limitations of helmets.

¹⁹ Bryan M.A., Rowhani-Rahbar A., Comstock R.D., Rivara. F. (2016) Sports- and Recreation-Related Concussions in US Youth. *Pediatrics*, 138(1).

²⁰ <https://www.cdc.gov/headsup/youthsports/index.html>

Conclusion

Consumers expect their products to be reasonably safe, and when they are not, they expect them to be fixed or removed from the market as soon as possible. In terms of cost-benefit, injury prevention is overwhelmingly beneficial to society because injury and death are expensive. Medical bills, lost wages and grief take a huge toll on us, and we are all paying costs associated with these preventable tragedies because of the impact on our health care systems.

What else can be done to improve the state of consumer product safety right now?

- Congress must provide the CPSC with sufficient resources to protect the public.
- We need to do more to expand the stakeholder community in product safety. We should encourage retailers to be more involved, especially in product safety education and the development of safer products.
- We need to provide consumers with incentives to respond to recalls. Recall promotion should equal or exceed marketing spending/efforts.
- We should speed up our information dissemination to consumers when we become aware of a hazard, and Congress should remove legal barriers to providing that information.
- Consumer safety solutions should always follow the Safety Hierarchy. First, try to design out the hazard. If that cannot be done, then guard against the danger. If neither options are available, then, and only then, rely on warnings and education to address the problem.
- When we send a safety message to the nation, we should test it and monitor its effectiveness. We need more scientific research in injury prevention, consumer safety-related behaviors and public health communication strategies. Our safety campaign messages need to be tested and validated with measurable outcomes, not just the vague opinions of focus groups.
- We should target safety campaigns to specific high-risk communities and consumers who may never see the national campaigns that we currently use. Manufacturers bear the responsibility to lead consumers in understanding and using their products safely. Firms that manufacture products that lend themselves to reasonably foreseeable uses or hazardous operations should have a systematic hazard testing protocol during the design process: hazard testing should not be haphazard testing. Firms should not bring untested or barely-tested products to market. They should never ignore foreseeable use patterns and habits of consumers.

Focusing on these injury prevention strategies will enhance our effectiveness and help the CPSC better carry out its mission: keeping consumers safe. This is not an unrealistic or unreasonable expectation. By working together and not giving up, solutions to these and other persistent safety hazards are well within our grasp. Let's make them happen!